

**Volume Three**

**Improving the Educational Experiences  
of Aboriginal Children  
and Young People**

## CITATION

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## PROJECT STEERING COMMITTEE

The Western Australian Aboriginal Child Health Survey has been carried out under the direction of the project's Aboriginal Steering Committee. Present and past members of the Committee include Ted Wilkes (Chair), Ken Wyatt, Gloria Khan, Gordon Cole, Bruce Roper, Pat Kopusar, Danny Ford, Shane Houston, Henry Councillor, Gregg Stubbs, Shirley Bennell, Lester Coyne, Irene Stainton, Heather D'Antoine and Daniel McAullay.

As the Aboriginal custodians of the survey data, the Aboriginal Steering Committee is responsible for the cultural integrity of the survey content, field methodology, analysis and interpretation of findings. This committee also has oversight of the survey's community feedback and dissemination strategy to ensure the appropriate utilisation of the data for the benefit of Aboriginal people.

## PROJECT FUNDERS

The funding for survey design, interviewer training, field work, data analysis and reporting of this and previous volumes of findings was secured from competitive grants (Healthway and Lotterywest); the Australian Government (Department of Health and Ageing – coordinated through the Office for Aboriginal and Torres Strait Islander Health, Office for Indigenous Policy Coordination, Attorney-General's Department, Department of Education, Science and Training and Department of Family and Community Services); the Government of Western Australia (Departments of the Premier and Cabinet, Health, Education and Training, Justice, and Housing and Works; the Department for Community Development including the former Office of Youth Affairs; the Disability Services Commission; Western Australia Police; and the West Australian Drug Strategy); and corporate sponsorship (the Rio Tinto Aboriginal Foundation).

## EDUCATION REFERENCE GROUP

Production of this volume was guided by a reference group that comprised the following people: Kevin O'Keefe (Chair), Sandra Harris (Executive Officer), Lyn Acacio, Geoff Bowley, Jim Codde, Robyn Collard, Wendy Dawson, Ron Gorman, John Gregg, John Harris, Katrina Hopkins, Les Mack, Yvonne Patterson, Deb Shaw, Anna Sinclair, Kia Skonis, Robert Somerville, Karen Taylor, Bev Vickers and Grant Wheatley.

The role of the reference group was to ensure the policy relevance of the data analysis and reporting, to assist with development of appropriate commentary in each chapter, to oversee the peer review process, to facilitate the uptake of findings into policy and practice and to plan for the launch of the volume.



## ACKNOWLEDGMENTS

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## FOREWORD

*'Education is the great engine of personal development. It is through education that the daughter of the peasant can become a doctor, that the son of a mineworker can become the head of the mine, that the child of a farm worker can become the president of a great nation.'*

— Nelson Mandela

Of the numerous research reports into Aboriginal education there is none so profound as *The Western Australian Aboriginal Child Health Survey — Improving the Educational Experiences of Aboriginal Children and Young People*. It provides confronting evidence that the benefits of education remain poorly realised by the vast majority of Western Australian Aboriginal children. The more fundamental issue is the failure over the past 30 years by education providers to improve the educational outcomes of the vast majority of Aboriginal school children.

Whilst there is a need to acknowledge individual commitment and localised success, the survey findings provide compelling evidence of the need for change and an insightful understanding of the challenges facing governments, educators, Aboriginal Australians and Australian society in providing educational opportunities for Aboriginal children and youth.

The information provided by Aboriginal students, principals, teachers and parents is rich in detail and provides a wonderful opportunity for change through developing strategies for engaging in a whole-of-government approach to the early years of life and learning. The findings of this report provide an opportunity to re-engineer existing programmes, strategies and student support services, realign resources and redefine the role of Aboriginal and Islander Education Officers to focus on the foundation of early childhood education and re-engaging Aboriginal parents as educators of their children and young people.

It is important to accept the reality that the failure over the past thirty years to improve the educational outcomes of the vast majority of Aboriginal school children has affected three generations of Aboriginal children and young people who are highly likely to have had limited access to lifelong learning, employment and economic opportunities. The ultimate impact is being felt within communities where the social, human, economic and community capacity is not being optimised for the post-ATSIC changes occurring at the local and regional level.

Whilst the findings are confronting and the message unpalatable for all education providers, this publication is not a report of blame and incrimination. It is a document that enables a way forward for all to make a genuine and concerted effort to change the status quo. It is an opportunity to set aside differences to bring about change to improve educational outcomes and impact on lifelong learning and life outcomes for all Aboriginal children and young people.

There has been tacit acceptance of the non-achievement of educational standards by Aboriginal children and young people. The resultant acceptance of this lack of educational success has a cumulative effect. It is based on the belief that Aboriginal children and young people will never reach their full potential and if they fall behind society then welfare will protect them. Their low level of educational success is accepted as a normative expectation. This has to change.



It has become acceptable for Aboriginal children and young people to work at their level unless it becomes problematic or the socio-political structures are pressured to bring change. This publication provides a catalyst to bring about required change and a joint approach by all education providers to achieve the resultant improvement in educational outcomes. Aboriginal children and young people move between the sectors depending on geographic location and social circumstances at a given time so it is obvious that a joint approach is needed to affect meaningful change.

Aboriginal communities and governments must work in partnership and share responsibility for achieving outcomes and for building the capacity of people in communities to manage their own affairs. The alternatives are bleak because they will experience poor health, take on family and parenting commitments too soon, enter into a cycle of poverty earlier, experience the down side to socio-economic status, unemployment, street life, premature death, incarceration, substance abuse, mental health problems, violence and sexual abuse.

## RE-ENGAGING ABORIGINAL PARENTS AND CAREGIVERS IN EDUCATION

Re-engaging Aboriginal parents and caregivers as educators of their children in the first five years of life is critical if there is to be a strong relationship between home and school that can be utilised to develop common understandings, shared knowledge and mutual support in developing approaches to improving educational attainment. Aboriginal parents have always valued education. They want their children to succeed in mainstream education and have the same employment opportunities as other Australian children whilst retaining their cultural integrity.

Within traditional society there existed rich and diverse educational and teaching practices and support of appropriate processes for the education of children and young people which ensured they learnt both life skills and the cultural knowledge expected of them in perpetuating the continuance and survival of their community and families. This was altered with the progressive colonisation of Australia.

It is apparent that Aboriginal parents and caregivers strongly believe that their children are learning literacy and numeracy skills through regular participation in formal schooling and that their young people will have the appropriate skills necessary for accessing further study, employment and managing the community. This is not the reality. There is a moral obligation to redress the needs of Aboriginal children and young people to be successful and achieve the level of educational attainment that builds social and human capital to be achievers in the Australian and global community.

Currently there is a lack of agreement between parents and caregivers regarding the success of their children in the classroom and their children's educational attainment as measured against expected standards of achievement for that year level. Education providers, principals and teachers need to ensure parents and caregivers are well informed and have an opportunity to be active participants in their child's education and have an understanding of their actual level of educational attainment so as to work collaboratively to achieve improved outcomes.

## INVESTING IN EDUCATION FOR THE FUTURE

Education is recognised by OECD member states as a fundamental key to wealth creation and competitiveness in the current global information economy. Those societies which continue to invest in the education and training of their people have



prospered and enjoy a high standard of living and access to resources, health, human and social capital which builds upon individual and societal success.

The Australian Government, through the Department of Education, Science and Training, acknowledges that investing in education and training is essential for Australia's economic and social prosperity. This is reflected in the agency's vision statement — 'A better future for all Australians through learning, science and innovation.'

The new economic reform agenda is about positioning Australia to meet the new challenges and opportunities in international markets in a world without economic borders, the emerging new knowledge-based society, the pressures for change, global and international competitiveness, access to information and technology and new and emerging global clients. Australia will require a flexible, well-educated, high performing workforce to achieve and sustain these reforms. This will pose problems for Aboriginal children and young people who continue to perform poorly with their education because they will not access the opportunities, which will flow for Australians.

The ongoing economic reform agenda including the restructuring of the Australian economy and Australian industries along with global change has led to increased specialisation and a decline in employment in many traditional industries. There is growing demand for an educated, more highly trained and more technically skilled workforce. However, most Aboriginal workers are at the lower, shrinking end of the employment market and are becoming part of the growing underclass. These structural changes will require highly skilled and well-informed people who will contribute to advancing activities, which will address the needs of large corporations and Governments. Education systems and training providers will have to provide the skills required for the workforce, in this emerging new trend.

The question that arises for Aboriginal children and young people is why are they excluded from the advantages of being an integral part of a vision in which 'Australia's global competitiveness and future depends on all Australians having the necessary education, training and learning ability and is dependent upon the application of knowledge to support innovation, stimulate business development and improve workforce productivity to live productive and fulfilling lives'.<sup>1</sup>

Aboriginal young people do not experience a level playing field due to poor educational outcomes, as a result of systemic failure over the past 30 years to improve the educational attainment of Aboriginal children.

The importance of achieving literacy, numeracy and other educational outcomes was reinforced at the Conference *Issues Confronting Australian Business And Opportunities for Indigenous Australians*. Mark Patterson, Chief Executive Officer, Australian Chamber of Commerce and Industries identified the key attributes that the business sector requires for employees:

*'In the countless surveys that we undertake with employees across all sectors throughout the country there are six key attributes that they repeatedly identify for us when they talk about their recruitment preferences.*

- ◆ *The first is reliability*
- ◆ *The second punctuality*
- ◆ *The third work motivation*
- ◆ *The fourth being committed to pursuing the work activity*





- ◆ *The fifth basic levels of literacy*
- ◆ *The sixth, basic numeracy skills.*

*Employers are generally looking for a series of key attributes of individuals — a willingness to work, a willingness to commit themselves to the process, being reliable, being punctual and having reasonable levels of both numeracy and literacy, providing them the opportunity for the employer to provide the required training to ensure that the individual can undertake the task at hand, and I think that's important for us in looking at creating employment opportunities. The general business climate and operating conditions that apply in Australia affect us all.'*

It is important for Aboriginal children and young people to acquire and become proficient in Standard Australian English as well as to be taught to recognise the way in which language is used, contextualised and understood and applied within a global and knowledge-based society in order to participate in Australia's economy. The point that Diana Eades makes is valid and needs to be factored into the development of literacy skills.

*'You see two people can speak exactly the same words, with the same grammar, but if their cultures are different, then they can't have the same meaning. Because the way people interpret each other speaking isn't just a matter of words and grammar. It's all tied up with the way people relate to each other, the way people act and think about their world — in other words, their culture.'*

The task of developing appropriate resources and teaching Aboriginal students to become proficient in Standard Australian English should be achievable. Over a period of twelve years a student should be able to learn English when it is considered in this context — English has 26 letters and only 44 sounds, has an approximate total of 550,000 words, 2,000 words make up 90 per cent of most speech, 400 words make up 65 per cent of most writing and there are only 70 main spelling combinations.<sup>2</sup>

Graduation from the final year of secondary schooling provides measures of success including the completion of school, entry to University and higher education, access to TAFE, apprenticeships, traineeships, employment and an income. Aboriginal children and young people who do not achieve secondary education and do not acquire the basic skills of literacy and numeracy are unlikely to be competitive in the labour market. They will subsequently remain vulnerable to structural changes within the labour market, government reform and the responses to these changes through education and training policies and therefore will be reliant on government income support.

One way of changing the status quo for Aboriginal children and young people in addressing the salient messages within this publication would be to implement goal one of *The Adelaide Declaration on National Goals for Schooling in the 21st Century*. Goal one proposes that schooling should develop fully the talents and capacities of all students. Aboriginal children and young people would then have the requisite employment-related skills and an understanding of the work environment, career options and pathways as a foundation for, and positive attitudes towards, vocational education and training, further education, employment and life-long learning.



## COMMUNITY EXPECTATIONS

Aboriginal communities, parents and caregivers expect education and training providers to prepare future generations of Aboriginal children and young people to achieve educational outcomes that make a difference, equip them with the knowledge and skills to enable them to cope with change that comes with the rapid development of science and technology, the knowledge explosion and the transformation of a global economy.

There is a need to provide a framework of education which is inclusive of and acknowledges the cultural capital that Aboriginal children and young people bring with them at the beginning of their schooling process, and allows this cultural capital to remain intact because they are the future leaders of tomorrow who will guide the future generations of Aboriginal people. Therefore, it is important that education provides the opportunity for them to be active participants in mainstream Australian society and the global community.

At the conclusion of twelve years of schooling Aboriginal parents and caregivers would expect that any Aboriginal student would have an education that was as broad and multi-faceted as life itself, and one that recognised the multiple roles that an individual will be called upon to play in both their community and society in the future including those of efficient producer, public-spirited citizen, responsible parent, reliable and convivial friend and lifelong learner.

They would expect that a well rounded education would enable an Aboriginal child or young person to have the:

- ◆ learning to know, so as to acquire the instruments for understanding the world.
- ◆ learning to do, so as to be able to turn knowledge and understanding into useful action.
- ◆ learning to live together, in order to participate and cooperate with others in all human activities.
- ◆ learning to be involved in the development of a greater capacity for autonomy and judgement, which goes together with strengthening the feeling of personal responsibility for a collective destiny, self-determination and self-management.

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## ENDNOTES

1. Department of Education, Science and Training. *Corporate Plan*. Canberra: DEST; 2002.
2. Adapted from slide presentation to *The Peoples Network Mastermind conference*, Dallas, Texas, June 1996. Gordon Dryden.
3. United Nations Educational, Scientific and Cultural Organisation. World Conference. *Education For All*. 1990.



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## ABOUT THIS PUBLICATION

This publication was produced by the Telethon Institute for Child Health Research (ICHR) through its Kulunga Research and Training Network, a formal partnership between the Institute and the Western Australian Aboriginal community controlled health sector, with the assistance of the Australian Bureau of Statistics (ABS).

### ATTRIBUTABLE COMMENTS

The views expressed in the numbered chapters of this publication relating to the implications of the Western Australian Aboriginal Child Health Survey (WAACHS) findings and for future directions in Aboriginal health are those of the Institute. Views expressed in the Foreword and in the Preface are those of the authors.

### RELATED PUBLICATIONS

This publication is the third of five volumes planned for release from the results of the Western Australian Aboriginal Child Health Survey. The focus of this volume is Education. The first volume, released in June 2004, focused on Physical Health while the second volume, released in April 2005, focused on Social and Emotional Wellbeing. Forthcoming volumes will focus on: Family and Community; and Justice issues.

### CUSTODY OF THE DATA

An Aboriginal Steering Committee directed all phases of the Survey. This Committee remains the custodian of all data collected and is responsible for the cultural integrity of the survey methods, analysis and dissemination processes.

### UNDERSTANDING THE DATA

The tables and text included in this volume are derived either directly from the Western Australian Aboriginal Child Health Survey, or through linkage of WAACHS data and administrative data. Survey reports were provided by carers and teachers of Aboriginal children, by Aboriginal young people aged 12–17 years, and by school principals. These reports were accepted as given. Interviewers were not in a position to verify responses either at time of interview or afterwards.

### ACCURACY OF THE ESTIMATES

All data presented in this volume have been subject to rigorous statistical analysis. Estimates from the survey have been calculated at a 95% level of confidence. The confidence intervals are displayed on graphs by means of vertical confidence interval bars (  $\bar{\pm}$  ). There is a 95% chance that the true value for a data item lies between the upper and lower limits indicated by the confidence bars for that item. Figures have been rounded to three significant digits. Therefore discrepancies may occur between the sums of the component items and totals.



## COMMUNITY FEEDBACK

The Kulunga Research Network has designed a communication strategy which will maximise information available to Aboriginal communities. The results and findings are being reported and profiled for each of the ICC regions throughout the state.

## CONTACT FOR INQUIRIES

If you would like more information about any topics covered in this volume or about the survey in general, please email us at:

[waachs@ichr.uwa.edu.au](mailto:waachs@ichr.uwa.edu.au)

## OBTAINING COPIES OF THIS PUBLICATION

This publication, and previous publications in the series, are available electronically as a PDF file on the Institute's web site:

[www.ichr.uwa.edu.au](http://www.ichr.uwa.edu.au)

Printed copies of the publication, as well as previous publications, may also be purchased through:

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A summary booklet for this volume is available in hard copy as well as electronically on the Institute's web site.





### THE DAWNING OF KNOWLEDGE: WHITE MATTER; GREY MATTER; BLACK MATTER

*The first mind was created as a baby bird in the earth being allowed to grow within the womb of the universe. Fed by the placenta, the mother of creation nurtured the little bird beneath her branches deep in the earth. The creature was fed on ancient knowledge, universal and collective, that would sustain the bird on its journey through life and in turn would contribute experience and wisdom back to the collective consciousness. The milk of the tree nurtured the bird, connecting the spiritual and physical sides of life through an invisible black thread contained within the milk. The baby was given an all seeing eye, suspended so that nothing could enter or leave the mind that was not seen from all possible directions. The bird was also given a wing to act as a guardian that could filter and re-direct those experiences that needed to be stored in another place, away from consciousness. A tail-wing was attached to provide balance. The bird could then rest, knowing that it would create its own tree of knowledge, stand strong and tall and flourish. The many branches of knowledge would grow until finally there would be a wonderful place to sit under the tree. In this place, clarity, enlightenment and wisdom could be experienced allowing the imagination to soar, the mind to be free and a path of beauty to be created. Another tree also grew at the same time so the little bird would be able to experience all of the sensations in the universe, navigate their journey and know their place in the world.*

*With the first dawn, the sun awakened the mind bringing it to consciousness within the universe. The sunlight brought threads of knowledge into the mind to set the rhythms of life for eternity. The mind now bathed in a golden river that flowed throughout, connecting all places.*

*For the knowledge tree of the mind to grow well, the baby has to start off the right way, bathed and nurtured with the right knowledge and experience in the womb. Throughout development, the mind should be cultivated and protected until adulthood when the tree is well formed with a full spread of its branches. Then the elder will have a place to sit and ponder life for a very long time.*





*The oldest people on earth, in the oldest continent on earth have a lot to teach their children and to teach all Australian children.*

## INTRODUCTION

This third volume of findings from the Western Australian Aboriginal Child Health Survey (WAACHS) explores some of the key issues relevant to the education of Aboriginal children and young people. It focuses particularly on students' overall levels of academic achievement and the many factors that influence their attendance, behaviour and outcomes at school. In doing so it builds on the survey findings on physical and mental health already reported in Volumes One and Two.<sup>1,2</sup> Reading both of these volumes in conjunction with this volume will assist the reader to gain a more complete view of the education, health and wellbeing of Aboriginal children. A further two volumes are due to be released later that report community health and justice outcomes. Each volume thus builds a progressively more layered and holistic perspective on the many factors which influence Aboriginal children's outcomes and opportunities.

Writing from the perspective of Aboriginal people and professionals in health and education, the term 'Aboriginal' has been used recognising that many of the issues and experiences discussed may also apply to both Aboriginal and Torres Strait Islander peoples. Whatever terms are used to describe Aboriginal and Torres Strait Islander peoples, they should be used with respect and instil a sense of pride, bearing in mind that these 'labels' are applied to identify our children on the basis of their unique cultural heritage.

## EDUCATION AS A FUNDAMENTAL HUMAN RIGHT

Education is the process by which a society transmits its knowledge, culture, values, experiences and wisdom to successive generations. It requires a community of educators and students willing to share the journey and responsibility for both teaching and learning from each other and the world around them. From an Aboriginal perspective, for a *whole* community to go forward into its future a *whole* community must be educated.

Education is a fundamental right of all people; without education people cannot fully exercise their rights or fulfil their responsibilities as citizens of a nation. Education is not just about creating a healthy, prosperous society. It is also about supporting each individual to develop to the fullest their physical, intellectual and emotional capacities. The denial of education condemns not just the individual but their families and communities to limited life choices. Education in Australia is compulsory precisely because it is so fundamental to the health and continued prosperity of the nation. In Western Australia, the age of compulsory education has recently been extended to 16 years of age commencing in 2006; and will be further extended to 17 years of age by 2008. This is intended to enable students to have the 'skills, qualifications and education to succeed in the modern world'.<sup>3</sup> Will this make a difference for Aboriginal students who the system is already failing — many of whom have *effectively* stopped attending or achieving by 15 years of age?

For Aboriginal peoples, education is complex and multi-layered. Aboriginal children must gain the skills, values and knowledge that Aboriginal people hold as Indigenous cultures, nations, and custodians of country (collectively 'Australia') through education determined and delivered *by* Aboriginal people. Aboriginal students must also gain the necessary skills and knowledge from the dominant Australian education



system at all levels. In this context it is essentially education *for* Aboriginal people delivered and controlled *by* non-Aboriginal people. For both forms of learning to succeed, non-Aboriginal Australians must also be educated *about* Aboriginal peoples' rights and issues, *by* Aboriginal peoples, so they can properly value and respect our knowledge and culture. It is somewhat ironic that a non-Aboriginal person can gain a degree in a field such as cultural anthropology and expect to be paid well for their expertise on Aboriginal culture yet Aboriginal elders, as our custodians of knowledge and culture, typically receive little if any recognition in Australian society.

### Indigenous education – The international context

The *United Nations Universal Declaration of Human Rights, Article 26* states:

- ◆ 'Everyone has the right to education.
- ◆ Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms
- ◆ Parents have a prior right to choose the kind of education that shall be given to their children'.<sup>4</sup>

Furthermore, the unique status of Indigenous peoples is acknowledged in The *Draft United Nations Declaration on the Rights of Indigenous Peoples*, which asserts:

- ◆ 'Indigenous peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.' (Article 3)
- ◆ 'Indigenous children have the right to all levels and forms of education of the State. All indigenous peoples have this right and the right to establish and control their educational systems and institutions providing education in their own languages.' (Article 15)
- ◆ 'Indigenous peoples have the right to have the dignity and diversity of their cultures, traditions, histories and aspirations appropriately reflected in all forms of education and public information.' (Article 16)<sup>5</sup>

In 2000 the United Nations established the *UN Permanent Forum on Indigenous Issues* recognising that:

*'Indigenous peoples are the inheritors and practitioners of unique cultures and ways of relating to other people and to the environment. Indigenous peoples have retained social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live. Indigenous people are arguably among the most disadvantaged and vulnerable groups of people in the world today'.<sup>6</sup>*

### Aboriginal peoples in the national context

In the Australian context, in addition to the rights that flow to all members of a socially just society, for Aboriginal peoples social justice:

*'also means recognising the distinctive rights that Indigenous Australians hold as the original peoples of this land, including:*

- ◆ *the right to a distinct status and culture, which helps maintain and strengthen the identity and spiritual and cultural practices of Indigenous communities*



- ◆ *the right to self-determination, which is a process where Indigenous communities take control of their future and decide how they will address the issues facing them*
- ◆ *the right to land, which provides the spiritual and cultural basis of Indigenous communities.*

*“For Indigenous peoples to participate in Australian society as equals requires that we be able to live our lives free from assumptions by others about what is best for us. It requires recognition of our values, culture and traditions so that they can co-exist with those of mainstream society. It requires respecting our difference and celebrating it within the diversity of the nation.”*

— Dr William Jonas<sup>7</sup>

In Australia, the education of Aboriginal peoples is inextricably linked with the education of non-Aboriginal peoples, about Aboriginal peoples, issues and rights. The lack of understanding by the broader Australian community of what it means to be Aboriginal is a major impediment to achieving equality and social justice for Aboriginal peoples.

### Reconciliation and community education

In 1991, the Commonwealth of Australia established *The Council for Aboriginal Reconciliation* which embarked on a nine-year education programme to

*‘promote a deeper understanding by all Australians of the history, cultures, past dispossession and continuing disadvantage of Aboriginal and Torres Strait Islander peoples, and of the need to redress that disadvantage’.*<sup>8</sup>

At the end of its tenure in 2000, the Council identified significant unfinished business, and drew up two documents of reconciliation — the *Australian Declaration Towards Reconciliation* and the *Roadmap for Reconciliation*, which were presented to the Prime Minister and the nation. Among the essential actions recommended by the Council was that

*‘schools, tertiary education institutions and employers require and support the culturally appropriate teaching of the truth of Australia’s history that includes Indigenous perspectives and addresses racism.’*<sup>8</sup>

Few schools and institutions have taken up the challenge, and Aboriginal students and staff in schools and tertiary institutions still routinely identify racism as a significant barrier to achievement.

Aboriginal education doesn’t exist in a vacuum. It is not just about Aboriginal people but what everyone learns about Aboriginal people from Australian education systems (at all levels). Aboriginal studies curricula, while now included in a number of schools in Western Australia, do not always include Aboriginal people in their formulation or delivery except perhaps as an occasional ‘guest speaker’. Aboriginal studies, done badly can be a greater problem for Aboriginal students than not having it at all. The key issue is not just about the incorporation of Aboriginal studies curricula, but the effect of the Australian education system as a whole. This involves interrogating and correcting the negative impact of hidden messages in the broader curriculum. For example, until very recently the teaching of Australian history has continued to perpetuate the myth of ‘peaceful settlement’. While the Aboriginal side of the story may sometimes be told in schools it is questionable whether it is done sufficiently to enable students to make



up their own minds. Aboriginal children often don't see themselves, their families, culture, history and experiences reflected in schools. Even if incorporated in curricula, Aboriginal views about the true history of Western Australia are often negated in other ways. For example, every year when Foundation Day is celebrated with a public holiday; or pioneer week occurs, Governor James Stirling is lauded as a 'founding father', remembered for his role in paving the way for European settlement rather than for the land theft and murder that characterised his governorship. At the same time Aboriginal 'heroes' such as Yagan and Jandamarra are accorded very different historical status. There is still a mismatch between what Aboriginal people hear (or don't hear) about themselves in schools and what is taught at home. A fundamental conflict exists between the lived experience of Aboriginal people and the dominant Australian education system.

A critical problem in educating non-Indigenous Australians, and certainly one also identified by Aboriginal peoples in relation to reconciliation, has been the disproportionate contribution Aboriginal people, particularly students, are expected to make to the education process. Aboriginal students in schools and universities are often expected to 'teach' the rest of the class about Aboriginal culture or issues, to take too great a responsibility for other students', and often the teacher's or lecturer's, learning. Aboriginal students in university report being asked to comment on any Aboriginal issue in the media, to identify racism or inappropriate remarks made by other students when teachers fail to do so, to challenge misinformation presented by lecturers. Aboriginal students also often have their own identity questioned. All of this places an enormous burden on Aboriginal students at all levels of education.

## ABORIGINAL WAYS OF KNOWING

Since time immemorial Indigenous nations around the globe have had their own knowledge systems, and Aboriginal communities and Aboriginal knowledge systems in Australia are part of this global network. The Indigenous knowledge systems developed and maintained by Indigenous peoples concern past, present and future and continue to grow as they face new challenges and changing historical circumstances. In reality, Indigenous communities promote lifetime learning and sustainability; they are relationship-based societies where people are considered the greatest asset, and knowledge a treasured possession.

Within this global system, the hundreds of 'nations' or language groups that collectively make up the Aboriginal peoples of Australia are the oldest continuous cultures on earth. Aboriginal knowledge systems are the oldest knowledge systems in existence, hundreds of thousands of years older than their western counterparts. Collectively Aboriginal knowledge systems form the first knowledge systems of this continent, a vital part of the knowledge capital of Australia and the key to understanding the continent. To ignore the value systems, traditions, beliefs, knowledge and skills inherent in Aboriginal communities is to jeopardise any long term sustainable future for Australia.

### Aboriginal worldviews

Aboriginal knowledge systems have ways of sensing the world, worldviews that differ in significant ways from the dominant 'western' or 'European' knowledge system in Australia. Aboriginal knowledge systems are based on intimate relationships not focused on *what* things are as much as *who* they are and how they are related.



Everything has spirit, feeling and law. This applies equally to all things — rocks, wind, land, plants, animals or people. Trees, animals, rocks are related to us as brothers, sisters, aunties. In contrast, western knowledge systems appear to have limited definitions of what is ‘living’, classify a broad set of objects as inanimate and place living ‘things’ in a hierarchy of complexity and therefore, ‘value’. For Aboriginal people, spiritual and physical worlds are continuous and interactive, our ancestors still speak to us in daily life. In western knowledge and education systems spiritual and physical worlds are separate, consigned to their respective realms of secular and religious (or occasionally perhaps paranormal). For Aboriginal people, time is fluid; past, present and future are all in the one place/space/time, more circular than linear. In western knowledge time is generally learnt as linear and upwardly progressive, time and society advancing from past to present and into a brighter future, particularly in technological and material wealth. From an Aboriginal worldview the most important events have already happened and each day is a living celebration and renewal of the ‘Dreaming’.<sup>9</sup>

### Transfer of knowledge and learning

In Aboriginal Australia, the transfer of knowledge and learning occurs through stories that can also be expressed in various different modalities — art, song, dance, ceremony. Aboriginal stories tell us fundamental truths about the world, but are often dismissed as merely metaphor or myth, relegated to the realm of children’s story, lacking the documentary evidence or proof required of the scientific method.

#### **ABORIGINAL KNOWLEDGE LIGHTS THE WORLD**

*Before time, large beautiful white birds were the messengers between the heavens and the earth. Carrying the knowledge from the creator and inscribing it onto the earth, so all would have the secret of knowledge. The beautiful birds were spaced across the continent as the writings covered the land. Each bird inscribed the land they lived on with their knowledge from the creator. All knowledge was not the same. Each area had its own special writings, guarded by the sacred birds the people loved and respected. One day when food became scarce throughout the land the hunters were tired from hunting all day and returning empty handed. When they saw one of the beautiful white birds sitting on its nest, they thought no one would know if we killed the bird for food, as long as we hide the white feathers. The white feathers contained the knowledge of all time, which is why they never lost any feathers; they were part of the knowledge. Everything they knew was also inscribed on their feathers. The men killed the sacred bird then stuck the white feathers into a large flock of black swans, till none were left. The black swans flew to the farthest side of the continent carrying with them the secrets of the killing and the sacred knowledge inscribed on the white feathers. When the creator saw what had happened, he recalled all the sacred birds who rose in their thousands creating a great whirlwind that covered up the land and the sacred knowledge inscribed there, away from the eyes of man. If a black swan is ever born without a white feather, then the last chance for humankind is lost. Indigenous knowledge is inscribed over all things, the land, the waters, the sky, the sun, if we only have the insight to see, the wisdom to listen and the compassion to embrace these ancient patterns of life.*

— Gladys Milroy



The story Aboriginal knowledge lights the world holds no surprises for Aboriginal people, land is read as text and the ‘proof’ is all around us written in the landscape. Learning to ‘read’ land, people, sky, sea, to express knowledge through song, dance, ceremony are all intrinsic to Aboriginal knowledge and education systems.

For knowledge systems to have been sustained over a hundred thousand years, it follows that Aboriginal peoples also have the oldest and arguably the most successful education system in the world; education systems that did not just enable people to physically survive but to live culturally and spiritually rich lives, and pass this on to successive generations.

Stories such as this enabled Aboriginal peoples to maintain a healthy and bountiful country and a strong healthy society. For Aboriginal people the land is alive, central to health and survival. Aboriginal knowledge systems value the knowledge and understanding passed down through oral traditions over many generations. These provide insight into how the health of the land and the people are interconnected and can be managed and improved over the coming generations. Being part of the landscape and intimately connected to ‘country’ suggests a different view of life, purpose and meaning and in some respects raises the notion of ‘eternity’ with no beginning or end but a continuous cycle of life.

Aboriginal education systems required children and adults to hold multiple schemata in mind simultaneously in order, for example, to know and understand complex kinship systems and skin groupings, and navigate traditional lands. The use of story systems in developing these cognitive skills enabled Aboriginal children to be multi-tasked and multi-focused. Oral history traditions ensured an enriched environment for healthy brain development throughout life, due to the necessity to develop extensive systems of memory. Growing the ‘knowledge tree’ of the mind remains as important today for the resilience and wellbeing of Aboriginal children as it has been for hundreds of generations.

## Knowledge and respect for relationships

Aboriginal children’s learning occurs in families and communities, from and with adults and children with whom they have significant relationships. Learning about kinship systems is an important aspect of children’s development as it gives a place and role in society. When Aboriginal people meet each other, the most important information is not what you do or where you work but how you might be related – where’s your country, who’s your family – establishing what relationships you share, so you will know how to behave in the proper way. Aboriginal society is based on relationships between people, country, animals, trees; everything and everyone is in this relationship. The focus of society is the wellbeing of the group. Within this each person is valuable to the group and the group is strong and healthy when everyone is included. Aboriginal children learn in families and communities, from and with adults and children they have relationships with. Education includes sharing and reciprocity, designed to maintain and strengthen kinship ties to ensure the wellbeing of the group. This is often at odds with the competitive nature of Western education systems that reserve the greatest value and biggest rewards for individual achievement.

From a traditional perspective, knowledge was wealth and Aboriginal society was seen as affluent and prosperous. There was a commitment to lifelong learning, an obligation to teach, share and use knowledge for the benefit of the community. Knowledge was essential to survival as it ensured the sustainability of food sources, a healthy genetic



pool, and a civil society. Knowledge was based on generations of observation and understanding the laws of nature. There was time to think and consider things in detail, and important decisions were given considerable time to discuss. Considering that Aboriginal peoples were well educated and healthy prior to colonisation, applying Aboriginal knowledge systems alongside current Western knowledge and research for education, health, wellbeing is critical. If education is not understood from a cultural context and ‘remedies’ applied in isolation from the rest of life, they are unlikely to produce positive outcomes.

## HISTORY AND ABORIGINAL EDUCATION

Aboriginal Australia comprises some 250 distinct Aboriginal languages and some 600 separate Aboriginal groups or ‘nations’, with about 60 Aboriginal languages, each with numerous dialects, in what is now Western Australia. The diversity, richness and uniqueness of language groups and nations in Western Australia were ignored when a single term ‘aboriginal’ was applied to all peoples and languages. The Western Australian education system has always been premised on the suppression of history as Aboriginal people know and understand it.

Colonisation of Australia’s west coast began in 1829, with the British invasion of Noongar lands followed throughout the 19th and early 20th century by successive invasions of Aboriginal peoples’ countries, Yamatji, Yinjibarndi, Nyamal, Palyku, Nyiyapali, Bardi, Bunuba, Wongkutha and many, many more. The dispossession of Aboriginal peoples from their lands was a bloody and violent process as the frontier moved north and east from Perth. Massacres were common and continued into the 1920s in the Kimberley. Aboriginal men not killed were frequently incarcerated thus leaving Aboriginal women and children more vulnerable to sexual abuse and exploitation. Aboriginal people call this genocide, and while colonists at the time did not use the same term, they were fully aware of the ultimate consequences of their actions. Western Australia’s first Governor, James Stirling, declared in 1835 that the Aboriginal race ‘must gradually disappear as the Country is occupied’, and he believed that nothing would save Aboriginal people from extinction.<sup>10</sup>

### Aboriginal education and mission education

For Aboriginal people who survived the initial onslaught of colonisation, under British Imperial policy the duty of colonisers was to ‘civilise and Christianise’ and missions were seen as capable of achieving both aims, through the education of Aboriginal children. Inherent in colonisation and colonial society, however, was an unshakeable belief in the superiority of the colonisers and the inferiority of the colonised, a belief reinforced by its education system.

Education for Aboriginal children was limited to the training of a labour force useful to the colonists. Racist assumptions about the primitive nature of Aboriginal society underpinned ideas that Aboriginal children could only be educated to a basic level because of their limited intelligence. From 1840, Anglican and Methodist missions opened Aboriginal schools, but despite government financial support, most soon closed. Aboriginal parents were resistant, colonists disinterested and convict labour, introduced in 1850, alleviated labour shortages.

More ‘successful’ and enduring was the Benedictine Mission established in 1846 at New Norcia under Father (later Bishop) Salvado, and later Catholic missions in the Kimberley in the 1870s. The *Elementary Education Act* (1871) did not specifically exclude



Aboriginal children from local schools, but the Education Department would not take responsibility for Aboriginal education due to specific legislation enacted for Aboriginal people.<sup>11</sup> *The Aborigines Protection Act 1886* established the *Aborigines Protection Board*, who could recommend to the Governor steps for the care and education of Aboriginal children. The 1886 *Act* also set up an apprenticeship system, whereby Resident Magistrates could apprentice any Aboriginal child of a 'suitable age' provided that reasonable provision was made for 'maintenance, clothing and proper and humane treatment'. This was rarely checked or enforced. Many Magistrates had vested interests in the supply of Aboriginal labour, a suitable age for apprenticeship was sometimes seen as low as 6 years of age and children were traded or sold by their employers.

### Aboriginal education in the period of 'protection'

In the 1880s Aboriginal people were believed to be dying out, a natural process in the face of a greater civilisation, and a convenient way of abrogating responsibility for the colonists' active participation in the process through frontier violence. Under the guise of 'protection', Aboriginal people were subjected to special race-based legislation that became increasingly restrictive amounting to a system of apartheid that excluded Aboriginal people from health and education systems, and society as a whole for the greater part of the 20th century. The *Aborigines Act 1905* made the Chief Protector responsible for the education of all Aboriginal children, but the most devastating consequence of the *Act* was to make the Chief Protector (from 1936, Commissioner of Native Affairs) the legal guardian of all Aboriginal children under the age of 16 years (extended to 21 years in 1936) over and above the rights of Aboriginal parents. This enabled Aboriginal children to be removed from their families and incarcerated in missions, settlements and children's homes or adopted. In some cases institutions differed little from prisons, with barred windows, dormitories locked up from sunset to sunrise, severe punishment regimes including isolation, for absconding. Education was still limited to training girls for domestic service and boys for manual labour, and nutrition, health and housing were extremely poor. The restrictive provisions of the various acts were not fully repealed until the *Native Welfare Act 1963 (WA)*. In July 1995, The Aboriginal Legal Service of Western Australia (ALS) launched its *Telling Our Story* report which documented the ongoing trauma of child removal practices in Western Australia.<sup>12</sup>

For Aboriginal children who managed to stay with their families, health and hygiene provided the key mechanisms of expelling or excluding Aboriginal children from state schools. Low morals and poor housing were also used as a pretext for exclusion. Aboriginal parents were subject to the prejudices, goodwill and whims of local parents in relation to their children's education. Aboriginal parents fought extremely hard to have their children attend local state schools, to be met with frustration and disappointment. Aboriginal children were sometimes enrolled to boost numbers in a particular town or district, enabling a school to be established or saved from closure, then excluded once the aim was achieved. Situating Aboriginal reserves considerable distances from country towns served to discourage Aboriginal parents from sending their children to school. The Education Department was firmly committed to the policy that Aboriginal students must be excluded if non-Aboriginal parents objected to their admission and under the Education Act the Minister retained the right to 'expel Aboriginal children whose presence might be considered injurious to the health, welfare and morality of other children'.<sup>11</sup> Regulations also gave teachers the right to suspend Aboriginal children temporarily if other parents objected and in





practice a single complaint by one parent was sufficient. In the 1940s the admittance of Aboriginal children to Government schools was still predicated on meeting required standards of health and hygiene.<sup>11</sup>

## Assimilation

The *Initial Conference of Commonwealth and State Aboriginal Authorities*, held in Canberra in 1937 concluded that

*‘the destiny of natives of aboriginal origin, but not of the full-blood lies in their ultimate absorption by the people of the Commonwealth’.*<sup>13</sup>

Education was seen as the means by which the objective could be achieved and the Conference recommended that the:

*‘efforts of all State authorities should be directed to the education of children of mixed aboriginal blood at white standards and their subsequent employment under the same conditions as whites with a view to taking their place in the white community on an equal footing with whites’.*<sup>13</sup>

For those Aboriginal people the Conference considered as ‘full-blood natives’, the agreed position was

*‘to educate to white standard, children of the detribalised living near centres of white population and subsequently place them in lucrative occupations, which will not bring them into economic or social conflict with the white community’.*<sup>13</sup>

This created a tiered system of education, which in Western Australia effectively meant a north–south divide between Aboriginal people as well. Those Aboriginal people not deemed eligible for assimilation would be ‘preserved’ or benevolently supervised in ‘their natural state’.

Western Australia’s delegate to the *Conference* was A.O. Neville, Commissioner of Native Affairs (formerly Chief Protector) who had controlled the Aborigines Department since 1915. Aboriginal people commonly referred to him as ‘Mr Devil’. Neville held an extreme view advocating not just ‘cultural’ assimilation through education but allied to it, the total biological ‘absorption’ of Aboriginal people, through control of marriage and relationships so that eventually no trace of the Aboriginal people would remain. Sister Kate’s Home, established in 1933, took only fairer skinned Aboriginal children who could be readily assimilated into ‘white society’.<sup>14</sup> The Bateman Report (1948) advocated special colleges as a means to transform Aboriginal people ‘from a nomadic, idle and discontented race to a settled, industrious, contented section of the community’.<sup>11</sup> In the 1950s, education was firmly aimed at assimilation but still mostly restricted to primary level. Aboriginal children were not generally perceived as having the ability for secondary studies, which in any case were considered unnecessary. Education was also designed to eliminate ‘laziness’, a trait attributed to Aboriginal people that was at odds with the reality of the widespread exploitation of Aboriginal labour, including child labour, particularly in the north of the state. Some separate hostels for Aboriginal boys and girls were established to enable a limited number of Aboriginal students to undertake secondary studies. By the end of the 1950s, the Education Department no longer banned Aboriginal students from enrolling in its schools.



At the 1961 Native Welfare Conference, a formal definition of assimilation was agreed on:

*‘The policy of assimilation means that all Aborigines and part-Aborigines are expected eventually to attain the same manner of living as other Australians and to live as members of a single Australian community enjoying the same rights and privileges, accepting the same responsibilities, observing the same customs and influenced by the same beliefs as other Australians.’<sup>15</sup>*

### Citizenship, integration and self-determination

Education was predicated on Aboriginal people giving up their own culture and values to adopt those of non-Aboriginal Australia, taught through the education system. As policy began to shift to integration, the definition was modified to enable Aboriginal people to ‘choose’ to follow the path above. The 1967 Federal Referendum amended s51 and s127 of the Australian Constitution enabling the Commonwealth to legislate for Aboriginal people in all states and making it mandatory for Aboriginal people to be counted in the Census. The 1967 Referendum was seen as the turning point in Aboriginal people gaining full citizenship rights, and education was one of the rights for which Aboriginal people had long fought. Though schools were a state responsibility, the Commonwealth was now able to develop national education policy for Aboriginal people. As policy shifted from assimilation and integration to self-determination, the Commonwealth established the National Aboriginal Education Committee (NAEC) in 1978, comprising Aboriginal community representatives and educators from around the country, to advise on policy and programme development to redress the critically low achievement levels in education for Aboriginal people. The Commonwealth has maintained its national policy role, allied programme funding for Aboriginal education and a national reporting framework across all levels and sectors.

### Recognition of Aboriginal ways of learning

In the 1980s, in attempting to increase the achievement of Aboriginal children in schools, much of the work of researchers and educators focused on the classroom itself and the nature of Aboriginal students as learners. ‘Aboriginal learning styles’ gained prominence as a large measure due to the work of Stephen Harris based on his teaching experiences in North-East Arnhem land. Harris listed a number of characteristics of Aboriginal learning that included: learning by observation and imitation rather than verbal instruction; learning by personal trial and error; real life, rather than by practice in artificial setting; learning ‘wholes’, not sequenced parts, or learning by successive approximations of the efficient product.<sup>16</sup> The NAEC’s Aboriginal Pedagogy project,<sup>17</sup> and work by teachers and researchers led to various approaches designed around two way learning, both ways learning and bicultural education, domain separation, code switching, all of which appeared to offer a practical and relatively simple way to address Aboriginal students needs, though they haven’t proved to be the hoped for panacea for Aboriginal education. Aboriginal learning styles, teaching methods and associated research have often been taken too prescriptively and applied to all Aboriginal students without regard to individual student’s and local community cultural diversity, historical experiences and the political, socioeconomic context.



## Continuing educational disadvantage

The *House of Representatives Report 1985* concluded that Aboriginal education was characterized by lower levels of access, lower levels of achievement, lower retention rates, particularly at secondary school, and often inadequate or inappropriate curricula.<sup>18</sup> Some twenty years on, despite Aboriginal education policy having been reviewed, revised, evaluated, new policies being formulated, further parliamentary inquiries undertaken, and Aboriginal education is still characterised by the above, despite some gains in some areas.

In 1989 the Commonwealth launched the *National Aboriginal and Torres Strait Islander Education Policy* (AEP) with 21 Goals for Aboriginal Education across all sectors from early childhood to higher education. These sought to improve access, participation and outcomes for Aboriginal students in early childhood, schooling, the involvement of Aboriginal people in educational decision-making, and Aboriginal studies for all Australians. The AEP was reviewed in 1994, the 21 goals endorsed, though most hadn't been fully implemented and despite the fact that many Aboriginal people argued that the AEP represented assimilation, rather than self-determination for Aboriginal people.

The *Report of MCEETYA Taskforce on Indigenous Education (2000)* identified the following impediments to the achievement of educational equality:

- ◆ *'lingering perceptions and mindsets in some quarters of the Australian community that the gap in educational outcomes between Indigenous and non-Indigenous Australian students is "normal" and that educational equality for Indigenous Australians is either not achievable, or if possible, only achievable over a long period of time (i.e. decades or generations)*
- ◆ *a systemic lack of optimism and belief in educational success for Aboriginal and Torres Strait Islander students*
- ◆ *education of Indigenous students is often not regarded as an area of core business in education systems.'*<sup>19</sup>

Such attitudes and mind sets differ little from a century ago; 2005 marks the 100 years 'anniversary' of the *Aborigines Act 1905*, the tragic consequences of which are still being dealt with by Aboriginal families and communities, and which, in relation to education, saw Aboriginal children as only capable of (or deserving of) education to grade 3 and Aboriginal education as the responsibility of the Aborigines department rather than the Education department.

The *Report of MCEETYA Taskforce on Indigenous Education (2000)* acknowledged the close relationship between education and health, housing and other factors, and the urgent need for cross-sector approaches if educational equality is to be achieved.<sup>19</sup>

## CONTEMPORARY ISSUES

In 2005, on average, Aboriginal Australians are less likely to get a pre-school education; are well behind mainstream rates in literacy and numeracy skills development before they leave primary school; have less access to secondary school in the communities in which they live; are likely to be absent from school up to two to three times more often than other students; leave school much younger; are less than half as likely to go through to Year 12; are far more likely to be doing bridging and basic entry programmes in universities and vocational education and training institutions; and obtain fewer and lower-level education qualifications.<sup>20</sup>



## Literacy and Numeracy

In 2000, The Commonwealth's launched its *National Indigenous English Literacy and Numeracy Strategy* (NIELNS), declaring that 'school must be a place where all Indigenous Australian children want to be, and want to learn' and for this to be achieved six key elements had to be addressed: attendance, hearing health and nutrition, pre-schooling, good teachers, best teaching methods, and accountability.<sup>21</sup> However, in national literacy and numeracy benchmarks, improvement has been marginal and in some areas indicators for Year 3 and Year 5 actually went down from 2000–2003. In national benchmark tests, in Western Australia in 2004, Year 5 Aboriginal students were 20–30 percentage points lower than non-Aboriginal students and by Year 7 this has increased to 40 percentage points lower.<sup>22</sup>

## Secondary school education

For Aboriginal students in secondary schooling in Western Australia, retention is poor and achievement is in crisis. In 2003, the apparent rate of retention from Year 10 to Year 12 for Aboriginal students nationally was 45.7 per cent some 31.2 percentage points lower than the rate for all students. For Western Australia, the situation was even more alarming with Aboriginal retention from Year 10 to Year 12 only 25.5 per cent, which is significantly below the national average.<sup>20</sup>

According to the *National Report to Parliament on Indigenous Education and Training 2003*,<sup>23</sup> Secondary graduation and a University Admissions Index (UAI), referred to as the Tertiary Entrance Rank in Western Australia, is the key pathway to higher education for most students, but this is not happening for Aboriginal secondary students, and Western Australia appears to be performing lower than a number of other states.

Less than 20 per cent of Aboriginal students who commenced in Year 11 in 2002 achieved secondary graduation in 2003 compared with 57.2 per cent of non-Aboriginal students; and 7.3 per cent achieved at or above the Tertiary Entrance Rank required for entry to a Western Australian public university, about one-fifth the rate for non-Aboriginal students.<sup>24</sup> The number of Aboriginal students doing Tertiary Entrance Exams has dropped alarmingly in the past three years.

There is some concern that the growth of Vocation Education and Training (VET) programmes in schools is contributing to the diversion of Aboriginal students away from university study. *The National Research Strategy 2003–2006*, found that 'there are real concerns that some programs are streaming Indigenous students into "second-rate" education.'<sup>25</sup> Anecdotal evidence from Aboriginal secondary students also suggests that schools often give them information for VET courses rather than information about university study. This may reflect lower teacher expectations for Aboriginal students.

## Higher education

The poor rates of Aboriginal high school retention and graduation do not necessarily reflect the abilities or aspirations of Aboriginal students or their families. This is borne out by the fact that an increasing proportion of Aboriginal students, who have not achieved the requisite TER for university entrance, or indeed have left school before Year 12, go on to access higher education at a later stage through alternative entry provisions and preparatory courses available to Aboriginal students at Western Australian universities. Such students are highly successful in their chosen study and career paths including Law, Medicine, Engineering, Social Work, Education, Science



and Arts. A factor that may be significant in explaining this educational turnaround is the existence of Aboriginal led centres and programmes within universities that provide cultural affirmation and security in addition to targeted student support services and courses for Aboriginal students.

According to the *National Report to Parliament on Indigenous Education and Training 2003*, 33.9 per cent of Aboriginal students had no formal qualifications for entry compared with 5.4 per cent of non-Aboriginal students; 70.2 per cent of Aboriginal students came through special entry for admission compared with 22.8 per cent for non-Aboriginal students.<sup>23</sup>

### The ongoing legacy of colonisation

The history and legacy of colonisation is characterised by two critical and interdependent issues: stolen land and stolen children, which resulted in separation from country, family, culture, knowledge and education. The legacy of trauma affects the ability of Aboriginal families, particularly parents and grandparents, to interact positively with education and health systems. Australian history and education has remained culpably silent about what happened to Aboriginal peoples and despite increased publications, Aboriginal stories of what happened is still challenged as unreliable because it is based on oral traditions. The issues of stolen land and stolen children are still unresolved in Australia today and continue to involve Aboriginal families and communities in lengthy legal battles to regain their rights.

In 1995, the Commonwealth Government established the *National Inquiry into the separation of Aboriginal and Torres Strait Islander children from their families* to be undertaken by the Human Rights and Equal Opportunity Commission (HREOC). In 1997, HREOC submitted the *Bringing Them Home Report*, concluding that the separation of Aboriginal and Torres Strait Islander children from their families was a gross violation of human rights, racially discriminatory and an act of genocide. In relation to education, the Inquiry found that for Aboriginal children in institutions, education was 'often very basic' and 'essentially a preparation for menial labour'. Poor quality and insufficient food, clothing and shelter were common. The Inquiry also found that Aboriginal people forcibly removed in childhood were not better educated, rated their health as poorer and were more likely to have been arrested, than Aboriginal people who had not been removed from their communities.<sup>26</sup>

The refusal of the Prime Minister John Howard to apologise to the stolen generations on behalf of the nation, the lack of compensation and reparation, and adverse decisions in stolen generations cases add fresh despair and continuing trauma to Aboriginal families. With the intense interaction between Aboriginal children and grandparents this can't be discounted as impacting on Aboriginal children seemingly distant from actions two decades or more ago.

For Aboriginal people, the land is our mother and people are literally born of and from the land, and education is in many ways learning about our mother. It is an intensely intimate and loving relationship. Aboriginal cultural identity is 'land' based, it is a relationship with a particular 'country' as part of a community that has custodianship and responsibility for that country. At one level it is not dissimilar from a sense of 'national identity', a place of belonging, of coming home to. 'Country' is a source of strength and renewal at a physical, emotional and spiritual level. Loss of country, not knowing one's country, not being recognised and respected in your country, is a source of grief and loss.



Some 13 years after the Mabo decision overturned the application of the doctrine of *terra nullius* to Australia, Aboriginal rights to land are still not settled. In Australia, 95 per cent of the land potentially claimable under Native Title is in Western Australia, a state where the economy is heavily dependent on resource development. Aboriginal people in Western Australia face ongoing legal challenges to claim and retain their land and, because of this, there is no certainty in the future. *What does it mean to face a protracted legal battle to reclaim your mother? How do such battles affect Aboriginal children?*

## The language of racism

Colonisation has also meant the imposition of a single foreign language, English, and the suppression of Aboriginal languages. Most Aboriginal people were multi-lingual, some speaking as many as seven or eight languages, and children often grew up learning a number of Aboriginal languages. Few colonists saw the necessity to learn Aboriginal languages, which in any case were labelled as ‘primitive’ or ‘rubbish’ languages. In missions and institutions, Aboriginal children and adults were forbidden their language, which was labelled the ‘devil’s tongue’, and they were punished if caught speaking language. Aboriginal attempts at speaking ‘English’ were also often ridiculed and became fodder for racist cartoons in the popular press, usually allied to images that depicted Aboriginal people as ape-like, ugly, dirty and of limited intelligence.

Aboriginal people applying for citizenship (and therefore no longer subject to the legal restrictions of the *Native Administrations Act 1936*) under the *Native (Citizenship Rights) Act 1944* had to prove they had adopted a civilised life. Being able to speak and understand English was one of the required conditions.

Aboriginal children learnt and used ‘Aboriginal English’ in their families and communities, but in schools it was treated as ‘bad English’ that needed to be corrected. Aboriginal children were made to feel ashamed of how they and their families spoke. They were forced to use Standard Australian English and then marked poorly when they did so. In Western Australia, Aboriginal people have fought a long battle to have Aboriginal English, and the worldview that accompanies it, accepted and valued by the Education Department. Aboriginal English speakers can now be recognised as bi-dialectical with linguistic competencies in different but not inferior forms of English. Many Aboriginal students currently speak one or more Aboriginal languages, and come to school with English as a Second Language, or what is still not fully acknowledged, English as a third or fourth language.

English is also the language which historically has been used to describe Aboriginal people in racist and derogatory terms. Consider the following quote from 1906, in *The Golden West*, a popular annual journal:

*‘The West Australian aborigine stands right at the bottom of the class to which we belong ... The native black has no intelligence, though his powers of imitation carry him up to the border line. He is as a general rule, to which there are few exceptions, brutish, faithless, vicious, the animal being given the fullest loose, a natural born liar and thief, and only approached by his next of kin, the monkey, for mischief. The Australian black may have a soul, but if he has, then the horse and the dog, infinitely superior in every way of the black human, cannot be denied the vital spark of heavenly flame.’<sup>27</sup>*

This was written a year after the *Aborigines Act 1905* and while in the media rather than an education textbook, what would it mean to an Aboriginal child to read this



about themselves? One might also wonder what Aboriginal children would have thought in 1997, when a Western Australian senator made comments in Federal Parliament that 'Aboriginal people in their native state are the lowest colour in the civilisation spectrum'. More disturbing is the fact that this Senator proceeded to defend the remark on the basis that it was 'not racist but a matter of historical fact' and received no censure from the Parliament<sup>28</sup>

## CHILD HEALTH, MENTAL HEALTH AND EDUCATION

The World Health Organisation in its *Ottawa Charter*<sup>29</sup> recognised education as one of the fundamental prerequisites for health and wellbeing. This is not surprising given the important role education plays in informing individuals, families and communities about the choices they make throughout life and development. Clearly knowing how to live and age well, how to make the most of the opportunities on offer throughout life and how to access health care as required, assists in ensuring healthy futures for successive generations. Health and education, however, do not exist in isolation as so many other factors contribute to both health and education outcomes. As suggested by the National Aboriginal Health Strategy's<sup>30</sup> notion of health, 'life is health is life', health itself is a very broad holistic concept with many factors inter-related. Education can be viewed in much the same way. Improving education alone is not going to be enough to improve the devastating health outcomes Aboriginal peoples currently experience and vice versa. If one considers the other prerequisites for health and wellbeing discussed in both the *Ottawa Charter* and the *Jakarta Declaration*<sup>31</sup>, then social justice, equity, shelter, a sustainable ecosystem, etc., are of equal importance with poverty highlighted as one of the greatest threats to health. The *Jakarta Declaration* also went on to state that for health promotion to be successful the evidence suggests that among other factors:

- ◆ *'participation is essential to sustain efforts. People have to be at the centre of health promotion action and decision-making processes for them to be effective.*
- ◆ *health learning fosters participation. Access to education and information is essential to achieving effective participation and the empowerment of people and communities.'*<sup>31</sup>

Hence health and education are intimately linked with many of the social determinants underlying the outcomes for Aboriginal peoples in Australia. Access to good health, wellbeing and education are fundamental to child development, yet Aboriginal children continue to suffer a level of disadvantage that is likely to adversely affect their prospects in life. There are numerous risk and protective factors that influence development as well as the ability to learn. From the available health and morbidity data it is clear that Aboriginal children carry a greater risk for poor physical health throughout development. Of specific concern to learning and education is the increased risk of ear infections resulting in hearing and language problems early in life. Added to this is a host of other poor health indicators such as chronic infection, anaemia and failure to thrive to name a few. If children are not thriving early in life, then attending school may seem an additional burden.

If one considers the mental health concerns Aboriginal children also carry then it becomes easy to understand why education suffers. Volume Two of the WAACHS provides some valuable insights into the lives of Aboriginal children and their families.<sup>2</sup> According to the survey results, 24 per cent of Aboriginal children were



at high risk of clinically significant emotional and behavioural difficulties. The contributing factors included developmental problems such as hearing, language and visual problems; family factors such as poor quality of parenting and family functioning, the burden of carer illness and the transgenerational impact of the 'Stolen Generations' and experiences such as those captured in the stressful life events scale.

Of note is that 22 per cent of Aboriginal children were living in families where 7 or more life stress events had occurred over the preceding 12 months placing these children at 5.5 times the risk of children in families with 2 or less life stress events. From a clinical perspective, many of the life stories and experiences of Aboriginal children reveal many losses and high levels of trauma but also the ability to survive and recover if given the opportunity. If children are already suffering from post-traumatic stress or mental health problems by the time they enter school, they are unlikely to be able to fully concentrate, regulate their behaviour or participate well socially. Unfortunately this may result in the child being further disadvantaged through poor understanding of their behaviour and mislabelling resulting in exclusion from school. This, of course, only reinforces the world as a negative experience, fails to buffer the child's development and contributes to further educational disadvantage. If this cycle continues through primary school, the child is far less likely to make a successful transition into high school and at some stage will lose their potential for success in education.

Given that physical health and mental health are intimately connected, it is easy to see the cumulative impact on child development and wellbeing and hence the risk to learning and the ability to fully participate in education. Not only is there the double disadvantage of poor physical and mental health but the additional socio-economic disadvantage that pervades Aboriginal communities. Poverty, impoverished social environments, poor living conditions and the experience of racism and social exclusion completes the triad of disadvantage locking children into an almost unbreakable cycle of developmental risk. Instead of being able to grow and develop as other Australian children do in a landscape of opportunity, wealth, good health and security, Aboriginal children grow in a landscape of risk. The current system of education is set up for an essentially healthy population within a well-buffered society with a relatively small proportion of children and families requiring significant assistance. The Aboriginal population structure however, is indicative of third-world populations with high risk, little buffering, few elders and lots of children. There is no 'normal' distribution of risk as the whole population sits under the high end of the risk spectrum. Hence the need for appropriate resources, services and programmes is going to be disproportionately higher. This also suggests that some factors usually identified as beneficial can be easily cancelled out under the enormity of disadvantage and may not become evident until the whole population is shifted forward.

Unless the additional burden is addressed, then there is no equity in education and the children most at risk will be further disadvantaged. As in all other systems, the approach to Aboriginal education needs to be holistic, appreciating the physical, psychological, social, spiritual and cultural aspects of child development, strengthen identity and be inclusive of family and community. The triad of disadvantage should be addressed in all systems children come into contact with in order to promote healthy development, wellbeing and restore the population. The education system is in a prime position for providing positive intervention due to the potential for contact with Aboriginal children, families and the community over many years. Education can contribute to the health of the people, the country, the nation and the future.





## CONCLUDING REMARKS

In concluding this preface, it is worth reflecting on what knowledge and education are. In one view, knowledge can be seen as ‘the entire body of information, facts, truths and principles learned throughout time’.<sup>32</sup> Education, however, is the ‘imparting and acquiring of knowledge through teaching and learning’.<sup>32</sup> Australia thus finds itself in a unique position with the world’s oldest living culture providing access to knowledge as ancient and continuous as the universe with new knowledge of science and technology as advanced as anywhere else in the world. By valuing and incorporating Aboriginal knowledge alongside western knowledge, Australia can benefit from a complete knowledge system that actually has been learned throughout time.

Australians must accept that this is an Aboriginal country, that the land is alive and speaks to us all, that Australia is a black mother. To deny this is not just to deprive Aboriginal children of their birthright, to be born into the right ‘story’, but to deprive all Australian children of their right to know and understand their true ‘country’. To retain the knowledge system, new solutions will need to be formulated. Aboriginal peoples no longer have the resources to maintain, grow and transmit their knowledge at the levels required for the sustainable future for all Australians.

In keeping with oral traditions, libraries are held within people and not buildings. Children are born into stories given by elders, to be taught throughout life and development. It is through stories that the children are embedded in nature, connected spiritually to the land and sustained throughout life into old age to become custodians of stories they pass on to their children. A child first learns from its mother, father, family and then from society. Australia needs to learn first from its mother, the land. Elders hold these teachings and Aboriginal society has much to contribute. This knowledge must be valued and given equal respect first within Australia and then internationally.

What might the oldest people on earth, in the oldest continent on earth have to teach others? The opportunity to contribute to the most complete knowledge system in the universe and be connected for eternity through the landscape.

Western education moves the individual forward rather than the group, this is what we see in the education system, that some Aboriginal children have been able to ‘succeed’, and there will always be some who make it. Aboriginal people want everyone to move forward *at the same time* and this is the real challenge for education. Aboriginal individuals, families and communities don’t want to leave anyone behind. They will look back to those that are trailing, wait until they catch up, go back if they can’t make it, it’s better to be together. The very thing that sustained Aboriginal people through the darkest times, the core value of Aboriginal society, relationships, doesn’t sit as easily in the education system.

Many Aboriginal children feel they have to sacrifice or compromise their own culture in order to survive or be successful in western education. Embedding Indigenous knowledge into education and resourcing Aboriginal peoples to live and provide its teachings, Aboriginal children will be supported to retain their unique identity and culture and develop to their full potential.



## ENDNOTES

1. Zubrick SR, Lawrence DM, Silburn SR, Blair E, Milroy H, Wilkes E, Eades S, D'Antoine H, Read A, Ishiguchi P, Doyle S. *The Western Australian Aboriginal Child Health Survey: The health of Aboriginal children and young people*. Perth: Telethon Institute for Child Health Research; 2004.
2. Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, De Maio JA, Cox A, Li J. *The Western Australian Aboriginal Child Health Survey: The Social and Emotional Wellbeing of Aboriginal Children and Young People*. Perth: Curtin University of Technology and Telethon Institute for Child Health Research; 2005.
3. Department of Education and Training. *15 is too young to stop learning* [Online]. 2005 [cited 2005 Dec 12]; Available from: URL: <http://www.15istooyoung.wa.gov.au/>
4. The Office of the United Nations High Commissioner for Human Rights. *Universal Declaration of Human Rights*. [Online]. 1948 [Cited 2005 Dec 12]; Available from: URL: <http://www.un.org/Overview/rights.html>
5. The Office of the United Nations High Commissioner for Human Rights. *Draft United Nations declaration on the rights of indigenous peoples*. [Online]. 1994 [Cited 2005 Dec 12]; Available from: URL: <http://www.ohchr.org/english/issues/indigenous/declaration.htm>
6. UN Permanent forum on Indigenous issues. [Online]. [Cited 2005 Dec 12]; Available from; URL: [http://www.un.org/esa/socdev/unpfi/aboutPFII/history\\_2.htm](http://www.un.org/esa/socdev/unpfi/aboutPFII/history_2.htm)
7. Human Rights and Equal Opportunity Commission. *Social justice and human rights for Aboriginal and Torres Strait Islander people*. [Online]. [Cited 2005 Dec 12]; Available from: URL: [http://www.hreoc.gov.au/social\\_justice/info\\_sheet.html](http://www.hreoc.gov.au/social_justice/info_sheet.html)
8. Council for Aboriginal Reconciliation. *Council for Aboriginal reconciliation archive*. [Online]. [Cited 2005 Dec 12]; Available from: URL: <http://www.austlii.edu.au/au/other/IndigLRes/car/>
9. 'Dreaming' is an English word used to describe a complex system of law, knowledge and beliefs, that is often misunderstood by non-Aboriginal people to mean that the events are not real, but imagined. Aboriginal people really prefer to use their own particular language term/name for the 'Dreaming' and the stories, song, dance and ceremonies within it.
10. Reynolds H. *An Indelible Stain? The question of genocide in Australia's history*. Ringwood: Viking; 2001.
11. Biskup P. *Not slaves not citizens. The Aboriginal problem in Western Australia 1989–1954*. St Lucia: University of Queensland Press; 1973.
12. Aboriginal Legal Service of Western Australia. *Telling our story. A report by the Aboriginal Legal Service of Western Australia (Inc) on the removal of Aboriginal children from their families in Western Australia*. Perth: Aboriginal Legal Service of Western Australia; 1995.
13. Commonwealth of Australia. *Aboriginal Welfare: Initial conference of Commonwealth and State Aboriginal Authorities*. Canberra: Commonwealth Government Printer; 1937.
14. Morgan SJ, Mia T. *Echoes of the past. Sister Kate's home revisited*. Perth: Centre for Indigenous History and Arts, The University of Western Australia; 2002.
15. Rowley CD. *Outcasts in white Australia*. Melbourne: Penguin; 1972.
16. Harris S. *Culture and learning: Tradition and education in North-East Arnhem Land*. Darwin: Northern Territory Department of Education; 1980.
17. Andrews R, Hughes P. *Toward a theoretical framework for the development of an Aboriginal pedagogy*. Canberra: Paper prepared for the National Aboriginal Pedagogy Project, Curriculum and Development Centre, Department of Employment, Education and Training; 1988.
18. House of Representatives Select Committee on Aboriginal Education. *Aboriginal Education*. Canberra: Australian Government Publishing Service; 1985.
19. MCEETYA Taskforce on Indigenous Education. *Report of MCEETYA taskforce on Indigenous education*. Melbourne: Ministerial Council on Education, Employment, Training and Youth Affairs; 2000.



20. Steering Committee for the Review of Government Service Provision. *Report on Government Services 2005. Indigenous compendium*. Canberra: Productivity Commission; 2005.
21. Department of Education, Science and Training. *The National Indigenous English Literacy and Numeracy Strategy 2000–2004. An initiative of the Commonwealth Government of Australia*. Canberra: Department of Education, Science and Training; 2000.
22. Department of Indigenous Affairs. *Overcoming Indigenous disadvantage in Western Australia report 2005*. Perth: Department of Indigenous Affairs; 2005.
23. Department of Education, Science and Training. *National report to Parliament on Indigenous Education and Training, 2003*. Canberra: Department of Education, Science and Training; 2003.
24. Department of Education and Training. *Annual Report 2003–2004*. Perth: Department of Education and Training; 2004.
25. National Centre for Vocational Education Research in partnership with the Australian Indigenous Training Advisory Council of the Australian National Training Authority Board. *Indigenous Australians in vocational education and training. National research strategy for 2003–2006*. Adelaide: Australian National Training Authority; 2004.
26. Human Rights and Equal Opportunities Commission. *Bringing Them Home: Report of the national inquiry into the separation of Aboriginal and Torres Strait Islander children from their families*. Canberra: HREOC; 1997.
27. Clarke Spear R. *The Golden West*. Perth: Volume 1, 1906, p.50.
28. Parliament of Australia. *Journals of the Senate*. No 103 7. 28 May 1997.
29. World Health Organisation. *Ottawa Charter for Health Promotion* [Online] 1986 Nov 21 [cited 2005 Dec 12]; Available from: URL: [http://www.who.int/hpr/NPH/docs/ottawa\\_charter\\_hp.pdf](http://www.who.int/hpr/NPH/docs/ottawa_charter_hp.pdf)
30. National Aboriginal Health Strategy Working Party. *A National Aboriginal health strategy: Report of the national Health Strategy Working Party*. Canberra: National Aboriginal Health Strategy Working Party; 1989.
31. World Health Organisation. *Jakarta Declaration on Leading Health Promotion into the 21st Century*. [Online] 1997 Jul 25 [cited 2005 Dec 12]; Available from: URL: [http://www.who.int/hpr/HPH/docs/Jakarta\\_declaration\\_en.pdf](http://www.who.int/hpr/HPH/docs/Jakarta_declaration_en.pdf)
32. *Encarta World English Dictionary*. [Online] [Cited 2005 Dec 12]. Available from: URL: <http://dictionary.msn.com>



## SUMMARY

This third volume of findings from the Western Australian Aboriginal Child Health Survey focuses on the educational experiences of Aboriginal children, from past decades to current day. The large scale and scope of the survey places it in a unique position to more fully describe the prevalence and distribution of educational disadvantage within Aboriginal students, and, importantly, to identify the factors that are driving the current poor school performance of Aboriginal students. Some of the findings of the survey run counter to conventional wisdom and provide new learnings. As a result, the survey findings provide an opportunity to make systemic changes.

The survey represents a significant milestone in the delivery of data to meet information needs for and about Aboriginal students. With these data and the evidence that flows from them, come expectations of actions and initiatives to address the difficulties that they describe. This makes the volume essential reading for all with a stake in the education of Aboriginal children and young people, from those who make decisions at a policy and programme level, to staff in schools. Further, the volume will be an important reference document for carers of Aboriginal children, communities and service providers.

This summary highlights key themes and issues in this volume, provides snapshots of main findings and directions to more detailed survey findings, and outlines the policy and programme changes that have been recommended based on the survey findings.

## KEY FINDINGS

The following findings from the volume focus on themes and issues. Important data findings are summarised below, under *Data Snapshots – Chapter by Chapter*.

- ❁ Aboriginal children are performing far worse at school than non-Aboriginal children. Some 57 per cent of Aboriginal children had low academic performance compared with 19 per cent of all children. Aboriginal children missed a median of 26 days of school per year compared with 8 days for all children.
- ❁ Educational disparities in school performance between Aboriginal and non-Aboriginal children are larger than disparities in physical and mental health. For example, about 13 per cent of non-Aboriginal children are born with sub-optimal fetal growth compared with 21 per cent of Aboriginal children, a disparity of 8 percentage points. About 15 per cent of non-Aboriginal children have a clinically significant emotional or behavioural problem, compared with 24 per cent of Aboriginal children, a disparity of 9 percentage points. Disparities in education measures are on the order of 30 to 40 percentage points regardless of the measure used for the estimate.
- ❁ Educational disparity is evident from the earliest years of school and it affects Aboriginal children living across all levels of relative isolation.
- ❁ While the proportion of all children who fail to meet the minimum academic benchmarks increases with year of enrolment, among Aboriginal children the proportion is much higher, and the longer they are at school, the wider the disparity grows.



- ❁ No obvious progress has been made over the past 30 years to effectively close the disparities in academic performance.
- ❁ The three main independent factors contributing to poor academic performance among Aboriginal students are: the lower levels of academic achievement of carers of Aboriginal students; the higher rates of absence from school; and the higher proportions of Aboriginal students at moderate and high risk of clinically significant emotional or behavioural difficulties.
- ❁ Poor school performances are being passed down generationally. In population terms, so few Aboriginal children are succeeding at school that little or no effect is likely to be readily observed for several generations.
- ❁ Carers of Aboriginal students reported being happy with the job schools were doing, and almost all carers reported that schools were approachable. However, carers of almost half the students reported that their children were doing OK at school when the child's teacher rated them as having low academic performance.
- ❁ What education systems are presently doing to improve educational outcomes of Aboriginal children is not working because the drivers of educational disparity are not being addressed.

## DATA SNAPSHOTS – CHAPTER BY CHAPTER

The following snapshots describe the key data from each of the chapters of this volume. These data are the main basis on which the *Key Findings*, outlined above, have been made. For a full analysis of the educational experiences of Aboriginal children see the relevant chapters.

**Note that Chapter 9 provides a complete overview of the main findings of the survey.** While there is no snapshot for this chapter, the elements of Chapter 9 are spread throughout this summary. **Readers are encouraged to read Chapter 9 in whole**, in order to understand the survey findings in the context of broader historical and policy issues and, in turn, the basis for the recommended actions to reduce educational disparities currently sustained within the Aboriginal population.

### CHAPTER 2: EDUCATING ABORIGINAL CHILDREN – ISSUES, POLICY AND HISTORY

This chapter describes the issues behind the development of Aboriginal education policy over the last century. Existing data are used to relate these issues to the gaps in educational outcomes between Aboriginal and non-Aboriginal children.

In recent years, almost nine in every ten Aboriginal children aged four years attended pre-school. (*page 49*)

School participation is relatively similar between Aboriginal and all school-aged children, up until the last few years of compulsory schooling. Of Aboriginal children aged 10–14 years in Australia in 2001, nine out of ten were participating in school compared with almost 100 per cent of all Australian children. For 15–19 year-old Aboriginal people, about a third were in school compared with half of all 15–19 year-olds. (*page 48*)



Of Aboriginal students who start Year 8, about one in four make it to Year 12. The same is true of three in four non-Aboriginal students. The story is worse in Western Australia when compared with all Aboriginal students in Australia (that said, it is better in Western Australia now than it has been in the last 5–10 years). *(pages 49–50)*

The disparities in academic performance between Aboriginal and non-Aboriginal students are in the order of 30 to 40 percentage points — this is the case regardless of the measure used for the estimate. *(pages 51–52)*

Chapters 3 to 8 are predominantly devoted to the analysis of survey data.

### CHAPTER 3: WESTERN AUSTRALIA'S SCHOOLS

This chapter describes the characteristics of the schools that Aboriginal children attend — the staff, students and school environment.

There were 750 schools in Western Australia with at least one Aboriginal student. These schools had a total of 19,600 Aboriginal students enrolled at the time of the survey. *(pages 68 and 70)*

The profile of schools that Aboriginal children and young people attend is similar to the profile of all schools in Western Australia — 72 per cent were Government schools, 17 per cent were Catholic and 11 per cent were Independent. The majority of Aboriginal students went to Government schools (85 per cent). *(pages 68 and 72)*

On average there was one Aboriginal staff member at schools with Aboriginal students (out of an average of 44 staff), and usually this was a non-teaching staff member. *(page 74)*

Principals generally rated the school environment as good (when looking at overall levels of truancy, absenteeism, graffiti, drug and alcohol abuse, etc.), although there were more problems with poverty affecting the students and violence in the community. *(pages 78–81)*

Aboriginal students were more likely than other students to be in schools where the principal rated the learning, teaching and support programmes as less than adequate. *(pages 81–82)*

60 per cent of schools with Aboriginal students had an Aboriginal Student Support and Parent Awareness Committee (ASSPA) at the time of the survey; 38 per cent had an Aboriginal and Islander Education Officer (AIEO). *(page 88)*



## CHAPTER 4: SCHOOL ATTENDANCE

<p>This chapter describes the patterns of attendance at school of Aboriginal children. It unravels the student, carer, family and school factors that are associated with, and predict, poor attendance.</p>	<p>For Aboriginal students, the median number of days absent during the school year was 26 days (those with 26 days or more were considered to have ‘poor attendance’). This compares with 8 days for all students. <i>(page 117)</i></p>
	<p>Half of all Aboriginal students had more than 10 unexplained absences in the school year. <i>(page 148)</i></p>
	<p>Aboriginal students in areas of moderate and high relative isolation tended to miss more school, as did students who went to schools where Aboriginal English was spoken. <i>(pages 120 and 125–126)</i></p>
	<p>Absentee rates were lowest in Year 6, and increased to a peak in Year 10. Rates were substantially lower in Years 11 and 12. <i>(page 119)</i></p>
	<p>International research highlights that rates of absence among Australian Aboriginal students are higher than those for New Zealand Māori, American Indian and Alaska Natives. <i>(pages 121–124)</i></p>
	<p>There were 15 factors that increased the likelihood of an Aboriginal student having poor school attendance: <i>(pages 144–146)</i></p> <ul style="list-style-type: none"> <li>◆ age</li> <li>◆ language spoken in the school playground</li> <li>◆ whether the student had ever been in day care</li> <li>◆ has trouble getting enough sleep</li> <li>◆ academic performance</li> <li>◆ risk of clinically significant emotional or behavioural difficulties</li> <li>◆ carers seeing the principal because of problems at school</li> <li>◆ education status of the primary carer</li> <li>◆ labour force status of the primary carer</li> <li>◆ home ownership</li> <li>◆ frequency of reading to the child at home</li> <li>◆ number of life stress events</li> <li>◆ proportion of students in the school who are Aboriginal</li> <li>◆ presence of an AIEO in the school</li> <li>◆ the socioeconomic status of the school community.</li> </ul> <p>Two-thirds of Aboriginal students with poor attendance also had low academic performance, although this fraction is greater in areas with higher levels of relative isolation. <i>(pages 126 and 160–163)</i></p> <p>The disparity in attendance rates between Aboriginal and non-Aboriginal students accounts for part of the gap in academic performance.</p>



## CHAPTER 5: ACADEMIC PERFORMANCE

This chapter describes Aboriginal students' levels of academic performance. In addition, an examination of the relationship between academic performance and key demographic variables is undertaken.

The proportion of Aboriginal students rated at low academic performance is disturbingly high. Almost six in ten Aboriginal students (57 per cent) were rated by their teachers as having low academic performance ('far below age' or 'somewhat below age' level overall academic performance), compared with 19 per cent of all Western Australian school students. *(pages 229–231)*

A significantly higher proportion of females were rated at 'average or above average' academic performance (50 per cent) than males (35 per cent). *(page 236)*

Overall, students in less isolated areas performed better — 49 per cent of students in the Perth metropolitan area were rated at 'average or above average' academic performance compared with 27 per cent of students in areas of high relative isolation and 21 per cent in areas of extreme relative isolation. *(pages 239–240)*

Aboriginal students completed two tests in the survey: a Matrices test — measuring visuo-spatial reasoning, where students were asked to complete a pattern or design; and a Word Definitions test — designed to measure the range of a child's English vocabulary. Results from these tests matched the results from teacher assessments, suggesting that the academic performance of Aboriginal students is far below that of non-Aboriginal students. *(pages 243–2475)*

Matrices and Word Definitions test scores declined with age. Average test scores dropped markedly after age 4–5 years for Aboriginal students, whereas a similar decline for the total population did not occur until age 9–10 years. This result highlights the importance of the early years of primary school as a key period for educational intervention. *(pages 243–247)*

The teacher ratings of overall academic performance, literacy and numeracy were consistent with results from other (independent) measures. This suggests that teacher ratings are a robust measure of academic performance — as a result, this measure has been used extensively in the analysis in this volume. *(pages 256–260 and Appendix B)*





## CHAPTER 6: FACTORS INFLUENCING ACADEMIC PERFORMANCE

This chapter extends on the results of Chapter 5 by examining the factors that are associated with, and predict, poor school performance among Aboriginal students.

A range of factors were found to be independently associated with (or drivers of) low academic performance. These factors are listed below, grouped by relevant category. However, overall, the three most important drivers of low academic performance were: [\(pages 326–329\)](#)

- ◆ poor school attendance
- ◆ low education level of the primary carer
- ◆ students at high risk of clinically significant emotional or behavioural difficulties.

### *Student-level factors* [\(pages 297–299\)](#)

Six student-level factors were found to be predictors of low academic performance:

- ◆ trouble saying certain sounds
- ◆ severe functional limitations
- ◆ risk of clinically significant emotional or behavioural difficulties
- ◆ Aboriginal English as the main language spoken in the classroom
- ◆ usually doing homework in study or homework classes
- ◆ primary carer having seen the class teacher in the last six months about a school problem.

### *Carer-level factors* [\(pages 307–308\)](#)

Three carer-level factors were predictors of low academic performance:

- ◆ highest level of education
- ◆ labour force status
- ◆ attendance at an Aboriginal funeral in the last 12 months.

### *Family-level factors* [\(pages 316–317\)](#)

Two family-level factors were predictors of low academic performance:

- ◆ Living in households where gambling caused problems
- ◆ Having lived in five or more homes.

### *School-level factors* [\(page 324\)](#)

Five school-level factors were predictors of low academic performance:

- ◆ lower student to teacher ratio
- ◆ Poor attendance
- ◆ unexplained absence
- ◆ school suspension
- ◆ repeating a grade.

Most of the physical health-related factors collected in the survey were not independently associated with academic performance. The exceptions were speech difficulties and functional limitations. [\(pages 289–292\)](#)



## CHAPTER 7: CARER AND TEACHER ASSESSMENTS OF STUDENT ACADEMIC PERFORMANCE

While this chapter covers aspects of parental involvement with the school, it is primarily concerned with the extent to which the carers of Aboriginal students and their teachers agree on academic performance — including the related factors and implications for improving educational outcomes.

There is a clear discrepancy between carers and teachers in rating the academic performance of Aboriginal students. Primary carers of 90 per cent of Aboriginal students aged 4–17 years reported they were doing OK with their school work. However, school teachers rated nearly three in five students (58 per cent) as having low academic performance. *(page 391)*

Teacher assessments have been validated against other (independent) measures and there is no evidence of bias or cultural inappropriateness in the measures used in this report. *(pages 396–400)*

Almost half of all Aboriginal students were rated by their carer as doing OK at school, while their teacher rated their academic performance as low (*this group forms the basis of the analysis in this chapter*). Carers of non-Aboriginal students appeared to have a better understanding of how their children were going at school. *(pages 401–414)*

- ◆ More carers and teachers disagreed on school performance in the more isolated areas when compared with Perth
- ◆ Carers with a higher level of education were more likely to agree with the teacher regarding the child's academic performance
- ◆ When overuse of alcohol at home was reported, teachers and carers were more likely to disagree
- ◆ Teachers and carers were more likely to disagree in households that were more overcrowded
- ◆ When the quality of parenting was very good, carers and teachers were more likely to agree on how the child was doing at school.

There were a number of factors *not* related to differences in carer and teacher ratings. These included: the physical and mental health of the primary carer; the employment status of the primary carer; family financial strain; number of life stress events; and the experience of forced separation in the family. *(page 415)*



## CHAPTER 8: SCHOOL, HEALTH AND YOUNG PEOPLE

<p>This chapter takes a closer look at Aboriginal young people aged 12–17 years. In particular, it identifies factors associated with academic performance, attendance at school and retention in education.</p>	<p>There is a lack of association between academic performance and many of the factors that describe current life circumstances, suggesting that patterns of low academic performance are set during early school years. <i>(pages 456–457)</i></p>
	<p>There is a strong association between the academic performance of young people (12–17 year-olds) and risk of clinically significant emotional or behavioural difficulties. However, the drivers of academic performance for these young people also include:</p> <ul style="list-style-type: none"> <li>◆ Level of Relative Isolation</li> <li>◆ school attendance</li> <li>◆ the primary carer’s experiences in paid work. <i>(page 456)</i></li> </ul>
	<p>There is a significant association between poor school attendance of 12–17 year-olds and:</p> <ul style="list-style-type: none"> <li>◆ risk of clinically significant emotional or behavioural difficulties</li> <li>◆ Level of Relative Isolation</li> <li>◆ sexual experience. <i>(page 464)</i></li> </ul>
	<p>Almost half of 15–17 year-olds were no longer at school, although 56 per cent were still in some form of education. Those living in areas of low, high and extreme relative isolation were over twice as likely to no longer be at school. Those aged 15–17 years who lived in households where overuse of alcohol caused problems were over twice as likely to no longer be at school. <i>(pages 470–474)</i></p>
	<p>About 32 per cent of 15–17 year-olds were neither working nor in any form of education. This is often used to define young people at risk in the transition from education to work. <i>(page 470)</i></p>
	<p>Self-esteem does not appear to have any bearing on school performance or attendance. <i>(pages 454–455 and 463–464)</i></p>
	<p>Data from other countries highlights that there is a link between pre-school and early education intervention and positive life outcomes for children from low socioeconomic backgrounds. The longer the intervention, the better the outcomes. <i>(page 475)</i></p>



## WHERE TO FROM HERE?

This third volume uses the unique findings from the Western Australian Aboriginal Child Health Survey to formulate a set of recommended actions as a basis for moving forward to improve educational outcomes for Aboriginal students. There are two key principles that emerge from the survey findings that underpin the recommendations:

- the need for schools to engage carers and communities to break the cycle of the transfer of educational disadvantage between generations
- the need to improve early childhood and early school learning for Aboriginal children, to prevent children falling behind in the crucial early years of life.

With these principles in mind, the following recommended actions are offered as a basis for forming strategies to improve educational outcomes for Aboriginal students (see Chapter 9 for details of more specific actions within these broad recommended actions):

### ACTION 1

Education systems should implement educational programmes and curricula based on developmentally appropriate, evidence-based practices that support Aboriginal children in the early primary school years.

### ACTION 2

Education systems should work with other relevant family and human services agencies to provide educational day care and child development experiences for young Aboriginal children to better prepare them for learning. This should take the form of:

- ◆ early childhood education and developmentally appropriate readiness to learn programmes for toddlers in home care, day care, play groups and other settings
- ◆ language and cognitive enrichment programmes at kindergarten and pre-school.

### ACTION 3

Education systems should set strategic directions to address the disengagement and alienation from schools of carers of Aboriginal children in order to improve their involvement in their child's educational progress and their capacity to support their child's schooling. Schools must reach out to carers and communities proactively to:

- ◆ establish a relationship of trust with the community based on shared values, shared decision-making and expectations
- ◆ address issues surrounding carers' own poor experiences at school
- ◆ demonstrate the value and positive culture of schools
- ◆ actively promote the benefits education can provide to children
- ◆ provide opportunities for carers to obtain positive educational experiences
- ◆ demonstrate respect for Aboriginal people and culture
- ◆ eliminate racism in schools.



**ACTION 4**

Programmes should be developed to set school, community and carer expectations for improving attendance at school and monitor their success.

**ACTION 5**

Education systems and health systems should work together to provide appropriate support and assistance to Aboriginal students with emotional or behavioural difficulties.

**ACTION 6**

Substantial direction within the education system is now needed to target:

- ◆ explicit teaching of Standard Australian English language features throughout all years at school
- ◆ strategies to identify and manage Aboriginal children who have speech and language impairments that interfere with learning
- ◆ development of appropriate educational risk-management strategies for Aboriginal students with emotional and behavioural difficulties, their implementation and reporting on their uptake and impact
- ◆ encouragement and support of the Vocational Education and Training (VET) sector in offering parent and family development curricula for Aboriginal students enrolled in VET.
- ◆ mandatory participation in Aboriginal studies as part of pre-service training.

**ACTION 7**

Practical steps that would represent meaningful progress in improving culturally inclusive schooling require:

- ◆ further development and implementation of a meaningful Aboriginal studies curriculum to increase the knowledge of all Australians about Aboriginal culture and history
- ◆ setting the educational agenda for the development of a tolerant and inclusive society that is knowledgeable about, and respectful of, cultural difference
- ◆ actively addressing racism in educational settings and institutions.

**ACTION 8**

Addressing the findings of the WAACHS will require a re-engineering of education system programmes and direction of funds to ensure that greater proportions of young Aboriginal children enter kindergarten and pre-school with better levels of readiness to learn at school. In doing this it would be prudent to re-direct some Australian and State government education funding towards early Aboriginal readiness-to-learn at school programmes and initiatives.



**ACTION 9**

Based on the limited evidence from the strategic intervention projects that have been run over the last several years to address the educational needs of Aboriginal students, general programme resources should be developed and systematically trialled and refined in a coordinated strategy to develop clear programmes that can be implemented in all, or certainly the majority, of schools. These programmes can still contain the flexibility to be adapted to local circumstances

**ACTION 10**

A substantial proportion of programme funding should now be directed towards interventions in the primary school years and earlier. Under present funding arrangements, this will require a balancing of the proportion of funds directed towards secondary aspirational programmes against the need to significantly fund kindergarten, pre-primary and early school years efforts. Both strategies are needed. However, aspirational programmes alone cannot address the more fundamental need for substantial improvement in Aboriginal educational outcomes and educational capacity building within the Aboriginal population.

**ACTION 11**

The AIEO strategy should be evaluated to identify barriers that prevent AIEOs from fulfilling their roles. AIEO efforts should be redirected towards supporting early primary school needs of Aboriginal children, and AIEOs should be provided with appropriate training and skills development opportunities to enable them to fulfil this role.

**ACTION 12**

The cost, use and effect of homework classes should be evaluated with a view to establishing their educational efficacy and/or other benefits or unintended consequences.

**ACTION 13**

The education system should undertake to estimate the level of financial and human resources over and above those available to all children that are specifically devoted to addressing and improving outcomes for Aboriginal students.

**ACTION 14**

Given the magnitude of the potential benefits and savings likely to flow to governments, Aboriginal communities and society from improving the educational outcomes of Aboriginal children and young people, consideration should be given to the Auditor General conducting regular performance audits of the level of implementation and impact of programmes and strategies in Aboriginal education.



**ACTION 15**

A national research agenda into Aboriginal education outcomes should be developed that establishes a systematic, rigorous and sustained programme aimed at both charting progress in achieving improved educational outcomes for Aboriginal students and at developing and evaluating programmes and strategies that produce measurable improvements.



# Chapter 1

## THE SURVEY – OBJECTIVES, DESIGN AND PROCESS

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# Chapter 1

## THE SURVEY – OBJECTIVES, DESIGN AND PROCESS

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*The Western Australian Aboriginal Child Health Survey was undertaken between 2000 and 2002 by the Telethon Institute for Child Health Research. The survey provides an epidemiological knowledge-base of the health, wellbeing and schooling of Western Australian Aboriginal and Torres Strait Islander children. In addition, survey data was linked to administrative health and school performance records. From this knowledge-base, strategies can be developed to promote and maintain healthy development of Aboriginal children and young people.*

*This volume is the third in a series. The two previous publications — Volume One: The health of Aboriginal Children and Young People and Volume Two: The social and emotional wellbeing of Aboriginal Children and Young People have described both physical health and social and emotional wellbeing outcomes. Volume Three reports on the educational outcomes of Aboriginal children and young people, particularly protective and risk factors that shape their academic performance at school.*

*This chapter provides an overview of how the survey has been conducted and how information regarding the educational outcomes of Aboriginal children and young people was collected from school teachers and principals.*

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### SUMMARY

- ◆ The primary objective of the Western Australian Aboriginal Child Health Survey (WAACHS) is to identify the developmental and environmental factors that enable competency and resiliency in Aboriginal children and young people aged 0–17 years.
- ◆ The survey describes the population of families with Aboriginal children under the age of 18 years. Data were collected for 5,289 eligible children living in 1,999 households. Data on academic performance were collected for 2,379 of these children who were attending school at the time of the survey.
- ◆ An Aboriginal Steering Committee has directed the planning, implementation and reporting of the survey. The survey content and processes were developed in consultation with Aboriginal leaders, key Aboriginal bodies, and through extensive consultations with Aboriginal community councils, parents, young people and key service providers throughout the state.
- ◆ The Telethon Institute for Child Health Research (ICHR) is home to the Kulunga Research Network — a collaborative maternal and child health research, information and training network. The Kulunga Research Network is an advocate for Aboriginal children and families in Western Australia and is developing additional materials from the survey for Aboriginal communities.



**SUMMARY** *(continued)*

- ◆ An Education Reference Group, comprising key stakeholders from State and Commonwealth government agencies, the Catholic Education Office of Western Australia and the Association of Independent Schools of Western Australia guided the development of the schools questionnaires.
- ◆ An index of Level of Relative Isolation (LORI) has been specifically developed for use in this survey. LORI allows greater discrimination of the circumstances of Aboriginal people with respect to their geographic isolation from population centres of various sizes and helps to better differentiate between families living in communities that are extremely isolated from Perth and regional centres.

1



## THE TELETHON INSTITUTE FOR CHILD HEALTH RESEARCH

The Telethon Institute for Child Health Research (ICHR) is a centre of excellence for the conduct of research into child health. Founded in 1987, the Institute's research programmes include the study of asthma and allergic diseases, birth defects, child and adolescent social and emotional wellbeing, childhood death and disability, leukaemia and other cancers, as well as Aboriginal health and infectious disease.

The Institute's mission is to improve the health of children through the development and application of research into:

- ◆ causes of ill health
- ◆ the maintenance of good health
- ◆ prevention of ill health
- ◆ the treatment of conditions affecting children.

The Institute is home to the Kulunga Research Network — a collaborative maternal and child health research, information and training network, involving ICHR and member services of the Western Australian Aboriginal Community Controlled Health sector. The Kulunga Research Network is an advocate for Aboriginal children and families in Western Australia. The Network seeks to ensure that community-based and culturally relevant research benefits Aboriginal people by influencing the policy and planning of government and other key agencies, and by involving Aboriginal people in all areas of research and implementation of outcomes. The Western Australian Aboriginal Child Health Survey (WAACHS) was a project of the Network.

## SURVEY OBJECTIVES

The survey's primary objective was to identify developmental and environmental factors that enable competency and resiliency in Aboriginal children and young people. There was emphasis on defining priority targets for existing and future health, education and social services. Building an epidemiological knowledge-base from which preventive strategies can be developed to facilitate the social, emotional, academic and vocational competency of young people was a notable feature of this survey.

The specific aims of the survey were to:

- ◆ describe and define the health and wellbeing of Western Australian Aboriginal and Torres Strait Islander children and young people aged 0–17 years
- ◆ estimate the prevalence and distribution of commonly occurring chronic medical conditions and disabilities (e.g. asthma, visual and hearing impairments, intellectual disability) and describe how they may affect a child's wellbeing and functioning
- ◆ estimate the prevalence, distribution and functional impact of common physical health, social and emotional problems in Aboriginal children and young people aged 0–17 years and their families
- ◆ estimate the prevalence and distribution of adverse health behaviours (e.g. smoking, alcohol, drug and volatile substance misuse)



- ◆ estimate the prevalence and distribution of other psychosocial problems, such as early school leaving, conduct problems, and juvenile offending
- ◆ describe Aboriginal and Torres Strait Islander children, young people and their families' access to, effective use of, and satisfaction with health care, education, juvenile justice, housing and social services
- ◆ identify factors resulting in protection from poor health and social and emotional wellbeing, adverse health behaviours and other psychosocial problems
- ◆ develop estimates of risk and markers identifying Aboriginal and Torres Strait Islander children and young people at increased risk for various health, educational and vocational outcomes.

## SURVEY CONCEPT AND DEVELOPMENT

The concept of gathering child health and wellbeing information from families with Aboriginal and Torres Strait Islander children was first proposed in 1991 during the development of the Western Australian Child Health Survey. However, for reasons owing to scale, cost and expertise, families with Aboriginal children were excluded from this earlier survey. The Telethon Institute for Child Health Research undertook to reassess the feasibility of conducting an Aboriginal child health survey following the conclusion of the original Western Australian Child Health Survey. The assessment of the feasibility, design and scope of the WAACHS was subsequently undertaken between 1996 and 1999.

Survey methodology and instrumentation were developed in consultation with Aboriginal leaders, key Aboriginal bodies (the Aboriginal and Torres Strait Islander Commission (ATSIC) Regional Councils, the Aboriginal Council of Elders, the Aboriginal Justice Council, and the Western Australian Aboriginal Community Controlled Health Sector), and through extensive community consultations throughout the state. A survey project team, reporting to an Aboriginal Steering Committee, had basic carriage of securing funding, developing the survey instruments, and implementing the fieldwork.

The Australian Bureau of Statistics (ABS) was a principal provider of consultancy services, expertise and support through all phases of survey development, implementation and analyses. Efforts were made to ensure that the data collected were both scientifically relevant and pertinent to current government information needs and policy initiatives. To do this, reference groups were convened during 1997–1998 with representation from the various government departments and community organisations that had an interest in the outcome of the survey findings. This process involved senior policy input from: the Western Australian Government Departments of Health, Education and Training, Community Development and Police; the Alcohol and Drug Authority; the Disability Services Commission; the State Housing Commission; the Catholic Education Office of Western Australia; and the Association of Independent Schools of Western Australia. Australian Government departments were also consulted about policy needs and to comment on the content and design of the survey.



## ABORIGINAL DIRECTION

All phases of the survey and its development, design, and implementation were under the direction of the Western Australian Aboriginal Child Health Survey Steering Committee. Established in 1997, the Aboriginal Steering Committee has the responsibility to control and maintain:

- ◆ cultural integrity of survey methods and processes
- ◆ employment opportunities for Aboriginal people
- ◆ data access issues and communication of the findings to the Aboriginal, and general, community
- ◆ appropriate and respectful relations within the study team, with participants and communities, with stakeholders and funding agencies and with governments of the day.

## COMMUNITY CONSULTATION AND APPROVAL

The survey was a large undertaking and involved extensive household sampling and voluntary participation in the survey by many Aboriginal and Torres Strait Islander people across Western Australia. Seeking support and approval for the survey required an extensive and ongoing consultation process. Consultations were undertaken during 1998 and 1999 with visits to Aboriginal communities in Albany, Bunbury, Broome, Carnarvon, Collie, Derby, Esperance, Fitzroy Crossing, Geraldton, Halls Creek, Kalgoorlie, Karratha, Katanning, Kwinana, Kununurra, Narrogin, Perth, Pinjarra, Port Hedland, and Roebourne. Every attempt was made to engage community leaders, community councils, administrative staff, service providers, and local residents to obtain their views about the requirements for the survey, and to secure their participation in the implementation of the survey. People were asked about survey methods and processes, their requirements with respect to specific survey content, their expectations about the use of the survey data, and intended outcomes.

The initial community consultations for the survey established that most participating carers and young people expressed a preference for the survey to be written and administered in plain English. The survey materials were assessed in the pilot test and dress rehearsal and found to yield reliable and valid information for all but the most isolated communities where there was a high level of traditional language use. In these communities, the majority of families chose to be interviewed with the assistance of an Aboriginal language translator employed through the local community council or Aboriginal Medical Service.

Approval for the survey was also obtained from the Western Australian Aboriginal Community Controlled Health Sector, the Western Australian Council of Elders, the Aboriginal Justice Advisory Committee and the Aboriginal and Torres Strait Islander Commission (ATSIC) State Council.



## ETHICAL APPROVAL FOR THE SURVEY

The project met the requirements of, and was approved by, the Western Australian Department of Health's Aboriginal Health Information and Ethics Committee as well as the Ethics Committee of King Edward Memorial and Princess Margaret Hospitals. These clearances ensured that the survey process and procedures conformed with requirements and protocols for health research with Aboriginal people and adhered to National Health and Medical Research Council (NHMRC) ethical standards and guidelines for research with human subjects.

## ABORIGINAL IDENTIFICATION AND THE SCOPE OF THE SURVEY

The survey was based on an area sample of dwellings (see *Glossary*). Families in selected dwellings who reported that there were 'Aboriginal or Torres Strait Islander children or teenagers living at this address who are aged between 0 and 18 years' were eligible to be in the survey (see *Aboriginal status* in *Glossary*).

Children living within group homes, institutions and non-private dwellings were not in the scope of the survey. However, where a selected household had a child temporarily living away from home (e.g. in a boarding school or hostel), these children were included in the scope of the survey.

Once the authority for the survey and the nature of the survey was explained to a responsible adult (usually the carer(s) or head of the household), and consent to participate was obtained, Aboriginal status was determined for each person who was reported to usually live in the dwelling. This was done by asking 'Does (the person) consider him/herself to be of Aboriginal or Torres Strait Islander origin?' Data were collected on all Aboriginal and Torres Strait Islander children under the age of 18 years in each of the participating households.

### TERMINOLOGY

Throughout this publication the term 'Aboriginal and Torres Strait Islander peoples' has been used as the most precise and inclusive reference for Aboriginal Australians. This was the form recommended by ATSIC for use in official documents. Where other group terms such as 'Aboriginal people' have been used, it should be noted that this is intended to refer to Aboriginal and Torres Strait Islander peoples.



## SURVEY OUTPUTS AND COMMUNITY FEEDBACK

This is the third volume of results from the WAACHS. *Volume One — The Health of Aboriginal Children and Young People* was published in June 2004, and *Volume Two — The Social and Emotional Wellbeing of Aboriginal Children and Young People* was published in April 2005. These publications are available from the ICHR web site: [www.ichr.uwa.edu.au](http://www.ichr.uwa.edu.au). After this volume, two further volumes of results are planned, which will focus on family and community, and justice issues. A summary booklet for each volume will be produced. Summary booklets for the first two volumes are already available. As well, there are plans to write a number of research papers and professional journal articles based on the findings of the survey.

A communication and dissemination strategy has been designed to maximise knowledge and awareness of the findings to both the Aboriginal and wider communities. The strategy, driven by the Kulunga Research Network, aims to engage Aboriginal communities in committed action using the data as a catalyst for political and community action and social change.

The WAACHS communication and dissemination strategy is also complemented by work undertaken by the State and Australian governments and the WAACHS team to develop a translation to policy strategy. This work is being led by the Government of Western Australia through the Human Services Senior Officers Group – Research and Evaluation. This strategy seeks to link the findings of each volume into government policy and planning.

For Volumes One and Two, ATSIC regional profiles have been produced for each ATSIC region in Western Australia. These have been disseminated throughout the State during consultation and feedback visits that have been conducted in every region. This process will continue with each subsequent volume. For Volume Three, regional profiles will be produced based on Indigenous Coordination Centre (ICC) regions. The results published in each main volume will guide the production of community information resources which will be followed by meetings, workshops and seminars in each region to inform and educate survey participants and Aboriginal communities in general about the survey findings.

### ICC REGIONS

With the abolition of ATSIC Regional Councils and the establishment by the Office of Indigenous Policy Coordination (OIPC) of regional Indigenous Coordination Centres (ICCs), changes may be made to the geographic regions used for producing statistics in relation to Aboriginal peoples. In Western Australia, seven ICCs have been established. The boundaries of the regions served by these ICCs are similar to those of the nine ATSIC regions in Western Australia, with the Perth Noongar and Noongar Country (Narrogin) ATSIC regions combined into the Perth ICC region, and the Western Desert (Warburton) and Mulga Mallee (Kalgoorlie) ATSIC regions combined into the Kalgoorlie ICC region.

At this stage it is assumed that the boundaries of the nine former ATSIC regions will remain unchanged, and for the purposes of this publication, these regions are now referred to as ICC regions.





## LEVEL OF RELATIVE ISOLATION

### MEASURING ACCESS TO SERVICES

1

A new classification of remoteness and isolation – the Level of Relative Isolation (LORI) – has been used in the WAACHS. The LORI is based on a product from the National Key Centre for Social Application of Geographic Information Systems (GISCA) at Adelaide University, called ARIA++. The ARIA++ is an extension of ARIA (the Accessibility/Remoteness Index of Australia), which has been widely adopted as the standard classification of remoteness in Australia. Because ARIA is based on describing the entire population of Australia, it has not been specifically designed to describe the circumstances of Aboriginal people living in remote areas. The ARIA++ gives a more detailed description of the most remote areas of Australia by including more service centres, of smaller sizes, in calculating the remoteness scores.

Under the original ARIA, over two-thirds of the land mass of Western Australia, and over one quarter of Aboriginal people in Western Australia live in areas classified as ‘very remote’. However, WAACHS data have revealed that, within this group, there were marked differences in access to basic services, cultures, lifestyles and health outcomes. The greater detail of ARIA++ enables these differences to be more adequately described in the Aboriginal population.

The Australian Bureau of Statistics has incorporated a measure of remoteness into the Australian Standard Geographic Classification (ASGC). The five ‘Remoteness Areas’ are based on ARIA+ and differ slightly from the original ARIA categories. However the Remoteness Areas have been defined to describe the total population of Australia, and the ‘very remote’ remoteness area is quite similar to the area defined as ‘very remote’ in the original ARIA.

### ILLUSTRATING THE DIFFERENCE BETWEEN ARIA AND ARIA++

As an example of the difference between ARIA and ARIA++, the town of Halls Creek in the East Kimberley – population about 1,300 people – is classified as ‘very remote’ under ARIA. However, it has a 4-bed hospital facility which provides health services to the town and communities throughout the surrounding region. One of those communities, Yiyili, about 120 kilometres east of Halls Creek, has a population of around 250 people. The Halls Creek Health Service provides a weekly community nursing clinic in the Yiyili community. Under ARIA’s 12 point remoteness scale, both Halls Creek and Yiyili receive the maximum score of 12 (‘very remote’).

Under ARIA++, which has an extended 18 point remoteness scale, Halls Creek receives a score of 12 and Yiyili receives a score of 18. Compared with major capital cities, both Halls Creek and Yiyili would be regarded as small places with limited access to services. However, analysis of WAACHS data has shown that the difference in isolation between Halls Creek and Yiyili is reflected not only in different access to basic services, but also in a different level of adherence to traditional cultures and languages, and different health outcomes.



## LORI CATEGORIES

Based on the ARIA++ scores, five categories of isolation have been defined to more appropriately reflect differences in cultures, access to services and health outcomes for Aboriginal children. To avoid confusion with the original ARIA, the five categories are referred to as Levels of Relative Isolation (LORI) and range from None (the Perth Metropolitan Area) to Low (e.g. Albany), Moderate (e.g. Broome), High (e.g. Kalumburu) and Extreme (e.g. Yiyili).

Figure 1.1 shows the proportion of Aboriginal children under 18 years in each LORI category. While one quarter of Aboriginal children in Western Australia live in areas classified as ‘very remote’ in the original ARIA, only 9.5 per cent (CI: 6.8%–12.7%) of children live in areas of extreme relative isolation.

Figure 1.2 illustrates the five LORI categories for Western Australia. This map is based on 1996 Census Collection districts, which were used as the sampling frame for the WAACHS. An important feature of the LORI categories is that, except for LORI None which is virtually identical with the Remoteness Area ‘Capital City Australia’ from the original ARIA, each area is more remote than the equivalent point on the ARIA scale. Areas classified as ‘very remote’ under the original ARIA can be classified as Moderate, High or Extreme on the LORI scale.

**FIGURE 1.1: ABORIGINAL CHILDREN AGED 0–17 YEARS, BY LEVEL OF RELATIVE ISOLATION (LORI)**

LORI	Number	95% CI	%	95% CI
None	10 200	(10 000 - 10 400)	34.1	(31.5 - 36.8)
Low	7 270	(6 640 - 7 930)	24.4	(21.8 - 27.0)
Moderate	6 390	(5 400 - 7 420)	21.4	(18.1 - 25.1)
High	3 170	(2 360 - 4 160)	10.6	(7.9 - 14.0)
Extreme	2 830	(2 040 - 3 800)	9.5	(6.8 - 12.7)
<b>Total</b>	<b>29 800</b>	<b>(29 800 - 29 800)</b>	<b>100.0</b>	



## THE SCHOOL SURVEY

Information about children in the WAACHS was collected from three sources: carers, young people themselves, and classroom teachers of those children attending school. By collecting information from different sources in different settings, it is possible to determine the influence of various settings — the family, the community, peer groups and schools — on the development and wellbeing of children.

## DESIGN HISTORY

The fieldwork for the household survey was intensive and occurred over a period of 15 months, while the schools survey ran over a 23 month period. The school component of the survey was, in effect, a ‘survey within a survey’ and posed its own unique challenges. To ensure that the content of the schools survey was relevant to the needs of policy and planning, the survey team convened planning meetings with representatives from the education sector during 2000.

In February 2000 an initial strategic meeting was held with senior executive officers from the Government, Independent and Catholic school systems to discuss the method for conducting the school survey and to seek support from the Chief Executive Officers of each of the three school systems. This meeting appointed a Working Party to oversee the development of the school survey questionnaires. It had members with executive, administrative and teaching experience and particular knowledge and expertise in Aboriginal education.

The terms of reference provided the working party with responsibility for:

- ◆ developing the survey questionnaires for the schools component of the survey
- ◆ developing the process by which these questionnaires were used by the Western Australian education sector
- ◆ communicating the survey’s objectives and processes within the education sector.

### Consultation processes

Extensive consultations with carers of Aboriginal children during 1998 and 1999 included assessing the willingness of carers to provide consent for the survey team to gather information on their children from schools. In addition, the consultations sought carers’ views about survey content relevant to education and schooling. Carers were asked about the role of education in their own lives and the lives of their children, whether there were particular issues or needs for information from the education sector, and about the role of school in family life. Separate consultations were held with young people aged 12–17 years. Common themes emerging from these consultations included:

- ◆ Doing well at school was important and desirable
- ◆ Carers of Aboriginal children had the same ambitions for their children as carers of non-Aboriginal children
- ◆ Educational opportunities for Aboriginal children were seen to be restricted — in the range of services, the range of curricula, and in the general educational expectations held by teachers and educational authorities



- ◆ School-related experiences of carers were important in shaping their attitudes and expectations about the education of their children
- ◆ Not all carers felt confident about approaching schools for help or assistance in regard to a child's needs or performance
- ◆ Exposure to racism and bullying was a point of concern
- ◆ Home environments were important in both preparation for getting to school and in being able to create conducive environments for homework
- ◆ While it was often claimed that Aboriginal children were 'not ready for school', many carers felt that 'schools were not ready for Aboriginal children'
- ◆ Aboriginal culture was not given any or enough attention, and cultural awareness was lacking
- ◆ Poor physical health and mental health detracted from children doing well.

In designing the survey questionnaires, these areas were given particular attention to ensure relevant coverage in the content.

The Working Party also provided extensive input into the design and content of the survey questionnaires. Many of the same issues raised in the consultations with families and communities were also raised by the education sector. Several other content areas were also highlighted as being desirable inclusions:

- ◆ School attendance and patterns of explained and unexplained absences
- ◆ The importance of nutrition and sleeping patterns on academic performance
- ◆ Community violence and its impact on school culture and performance
- ◆ The proportion of school staff who are Aboriginal
- ◆ Access to culturally relevant professional development for the school community.

The Working Party met intensively between March and early June 2000 to design the school survey questionnaires and specify the field methods for gathering the data. Item content was selected to maximise comparability with the previous Western Australian Child Health Survey<sup>1</sup> and to cover specific areas of interest identified in the consultation process. Some of the education-based content was placed in questionnaires for face-to-face interviews with carers while other content was placed in the school questionnaires. Small scale 'skirmishes' and pilot testing were undertaken to test the feasibility of both the questionnaire content and the process.

### Stakeholder input

A communications strategy was devised which aimed to develop a high degree of awareness of the survey within the education sector, and a high level of participation by schools. Throughout the development period, and under the guidance of the Working Party, briefings were held with key stakeholders. These included a full briefing of the State School Teachers' Union of Western Australia to discuss the survey, its implications and its impact on participating schools and teachers, as well as to gain support for the survey. Briefings about the survey were also held with the Aboriginal Education and Training Council and the Council of Early Childhood Education. These briefings provided an opportunity to solicit information to guide the development of the survey and increase the likelihood of policy relevance.



In May 2000 the final draft of the school questionnaires and the process for the school survey was presented to the WAACHS Aboriginal Steering Committee for review and approval. In June 2000, authorisation for the school survey was given at a full meeting of the Education Reference Group. At this meeting the content of the questionnaires and the process for gathering the information was presented. By August 2000 a joint letter was signed from the Chief Executive Officers of the Western Australian Department of Education, the Association of Independent Schools of Western Australia, and the Catholic Education Commission of Western Australia, authorising the survey and encouraging school principals to participate in the survey.

## CONTENT OF THE SCHOOL SURVEY

The content of the survey questionnaires for primary schools and high schools was identical. However, there were variations in the forms for each of these settings to allow for differences in access to the students and in recognition of the larger numbers of teachers that typically have access to students enrolled in Year 8 and above. There were three separate questionnaires used in the schools survey — one at the school level, and two student-level questionnaires. These are described below.

### Principal's Questionnaire – School Details

The principal was asked to fill out a questionnaire about the school. Only one of these questionnaires was required for each participating school. This questionnaire gathered demographic information about the school, composition of student enrolment, composition of teaching and support staff, and asked specific questions about professional development and curriculum activities targeting Aboriginal students. The final portion of this questionnaire asked the principal to rate the school on a range of school, social, and community factors that can impact on the school's ability to fulfil its educational purpose.

### Principal's Questionnaire – Student details

For each student in the survey, the principal was asked for information about the survey child. Instructions allowed the principal ample scope for determining the staff member best positioned to supply this information. The student details included: main language spoken, ratings of overall academic performance and ratings of performance in literacy and numeracy relative to all students of the same age, the length of enrolment and school attendance, whether they had repeated a grade, use of boarding facilities, classroom removal for behaviour problems, out of school suspension and school exclusion, and use of school support services for children with special needs.

### Classroom Teacher's Questionnaire

For survey children in primary school, information was provided by the classroom teacher. For survey children in high school the teacher of English Language or English Literature was asked to complete this questionnaire. The information gathered included the Teacher version of the Strengths and Difficulties Questionnaire — a measure of risk of clinically significant emotional or behavioural difficulties.<sup>2,3</sup>



For survey children in primary school, their classroom teacher was also asked to administer two brief tests for determining oral English vocabulary proficiency and non-verbal visuo-spatial reasoning. These assessments used the Word Definitions and Matrices scales of the British Abilities Scale<sup>4,5</sup> and were identical to the measures used in the 1993 *Western Australian Child Health Survey*.<sup>1</sup> For children in high school, a school counsellor, psychologist or year coordinator, or year head/form teacher or tutor conducted these tests.

## CONDUCTING THE SCHOOL SURVEY

During the household interview, carers of children attending school were asked for their consent for the survey team to approach the child's school and request information about the child's school performance, services used and attendance. Once signed consent was obtained, this was returned to the survey office for preparation of the school workloads.

### Maximising return rates

The fieldwork for the household survey was staged to occur in discrete regions. This allowed the survey office staff to monitor the completion of the field work and estimate when most returns from an area would have been received. It also allowed them to time the preparation of the school workloads to avoid, as best as possible, multiple postings to the same school. Many children within an area, particularly in rural and remote regions, attended the same school. Thus, workloads for an individual school could vary from a minimum of one child to, in some cases, over 45 children. Higher workloads posed particular problems for some schools and, as a result, several steps were taken to maximise returns:

- ◆ Schools were offered funding for teacher relief (i.e. payment for relief teachers in order for the classroom teachers to have time to be able to complete the survey questionnaires). While this was always offered to schools, only a relatively small proportion of schools took advantage of the offer and many schools chose to complete survey materials and post them to the survey centre without the use of paid relief arrangements. Nonetheless, the offer of teacher relief or payment for teacher time was important to maximising the return rates.
- ◆ Schools with high survey workloads — typically more than five children — were personally contacted to discuss customised arrangements for receipt and return of the survey questionnaires.
- ◆ In some instances, household interviewers visited schools to administer survey questionnaires to staff and students. This was an essential strategy in the rural and remote areas of Western Australia.
- ◆ Special arrangements were made for the Western Desert (Warburton) ATSIC region. Four members of the survey team travelled through the Western Desert (Warburton) ATSIC region to collect the school information on children in this very remote region. Because the majority of the students in these schools are Aboriginal, these schools sustained exceptionally high survey workloads. In most of these settings, teacher relief was not a feasible strategy to enable a school to participate in survey work. The most practical way to obtain participation from these schools was to send a team specifically to gather the information.



## Problems with undercount

As the household survey progressed, it became apparent that the specified sample frame was producing an undercount — that is, fewer than expected eligible households were identified. This occurred despite low proportions of non-contact with enumerated dwellings in selected census districts. Once the fieldwork had reached the half-way stage, it was possible to estimate the extent of the undercount and determine the level of supplementary sampling that would be required to achieve the target sample. It became apparent that further household sampling would be required and that this supplementary sampling would need to take account of Christmas, school holidays and the summer wet weather pattern in the north of the State. As a result, the household survey was extended well into 2001.

As a consequence of this supplementary sampling, the school survey took almost two calendar years to complete, spanning three academic years: 2000, 2001 and 2002. Due to turnaround times between household survey materials arriving at the data processing centre, and school survey questionnaires being despatched, as well as previously mentioned issues such as school workload burden, high child mobility between schools, change of academic year and school holidays, many children were unable to have their school survey questionnaires completed in the academic year that coincided with their household survey information. For the analyses reported in this volume, the age of the child and their year in school were based on the date on which the school survey data was collected rather than the date of collection of the household survey data.

In more isolated areas, Aboriginal students often outnumber non-Aboriginal students. In some of these areas the proportion of the student population participating in the survey was high. As teaching and administration staff are usually few in most small remote schools, this represented a substantial workload for the school. As a result, survey staff travelled to many of these schools to assist school staff in completing the survey questionnaires. Without this initiative, the response rate would have been considerably lower.

## Schools survey issues

The school survey was a highly complex undertaking seeking information on a small population of students. There are several features of the school survey for the WAACHS that distinguish it from the original Western Australian Child Health Survey:

- ◆ Aboriginal students are more frequently absent from school than are non-Aboriginal students. This prevented the administration of the tests to some students and jeopardised the return of the remaining information on the student.
- ◆ Aboriginal students appeared to be more mobile, and to move between schools more than other students. These students needed to be identified, their current school enrolment determined and contact made with their school. There were many instances of the survey office needing to trace students across more than two schools, spanning large distances. This could take several weeks. Because of this mobility, it was often first necessary to determine which school was in the best position to supply the information on the survey child.



- ◆ The identification of the survey as a survey of Aboriginal children often resulted in the survey materials being handed down the line to Aboriginal and Islander Education Officers and/or to infrastructures within the school that were less able to manage the task demands, or, were overburdened with existing demands. This prevented the timely return of materials and necessitated the development of strategies to support these schools in completing and returning the materials.
- ◆ A higher proportion of schools refused to participate in the survey process. Despite encouragement from the Chief Executive Officers of each school system, some principals did not want a survey that sought information on Aboriginal students. Despite offers of teacher relief and provision of field staff within schools, some principals were reluctant to participate and refused.

In the 1993 *Western Australian Child Health Survey*, 87 per cent of the survey materials on those children who were attending school were returned to the survey centre.<sup>1</sup> This compares with 67 per cent of returned school questionnaires on the WAACHS children. Non-response in the schools component of the survey is discussed further in *Appendix D — Levels of school and student participation*. Similar procedures and questionnaires were used in both surveys and the WAACHS enhanced these through the use of field staff who visited many schools to provide assistance. While there were acknowledged difficulties in response rates attributable to the school attendance characteristics of the survey children, the relative shortfall in participation between these two surveys also reflects system attitudes, barriers and processes that prevented achieving higher response rates for Aboriginal children.

Overall the school survey represented a sizeable undertaking in the scope of a household survey that itself was a considerable and unique task.

## CONSULTATION DURING ANALYSIS AND PUBLICATION PRODUCTION

An Education Reference Group was convened to oversee and advise on the analysis and writing of this volume. Membership of this group included representation from the Western Australian Department of Education and Training, the Association of Independent Schools of Western Australia, the Catholic Education Commission of Western Australia, the Australian Government Department of Education, Science and Training as well as representatives from the Western Australian Departments of Premier and Cabinet, Community Development, and Indigenous Affairs, and the Australian Government Department of Health and Ageing.

The reference group met regularly to review findings from the survey, and offer feedback and guidance on the direction of the analysis. The reference group also advised on the communication of results with key stakeholders and helped facilitate a process of translation of findings into positive impacts on policy and practice.





## ENDNOTES

1. Zubrick SR, Silburn SR, Gurrin L, Teoh H, Shepherd C, Carlton J, Lawrence D. *Western Australian Child Health Survey: Education, health and competence*. Perth: Australian Bureau of Statistics and TVW Telethon Institute for Child Health Research; 1997.
2. Goodman R. Psychometric properties of the Strengths and Difficulties Questionnaire (SDQ). *Journal of the American Academy of Child and Adolescent Psychiatry* 2001;40:1337–45.
3. Goodman R, Ford T, Simmons H, Gatward R, Meltzer H. Using the Strengths and Difficulties Questionnaire (SDQ) to screen for child psychiatric disorders in a community sample. *British Journal of Psychiatry* 2000;177:534–9.
4. Elliott CD, Murray DJ, Pearson LS. *British Ability Scales Manual 3 Directions for Administration and Scoring*. Windsor: NFER-Nelson; 1983.
5. Elliott CD, Murray DJ, Pearson LS. *British Ability Scales Manual 4 Tables of Abilities and Norms*. Windsor: NFER-Nelson; 1983.





# Chapter 2

## EDUCATING ABORIGINAL CHILDREN – ISSUES, POLICY AND HISTORY

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## Chapter 2

# EDUCATING ABORIGINAL CHILDREN – ISSUES, POLICY AND HISTORY

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*Education is an important means by which individuals can realise their full potential and make positive, informed choices about their lives. Educational experiences can affect job prospects, help the acquisition of socially valued qualities of character and behaviour, and support participation in social, cultural and economic life. Achieving these benefits for the population requires ensuring equity of access, participation and engagement with learning so that a critical mass of children attain a sufficient level of academic achievement to be empowering in their daily lives. This chapter provides a snapshot of the issues that have shaped the educational experiences of Western Australian Aboriginal children over time. It describes the school education system, and the relative disadvantage of Aboriginal students within that system, in terms of participation, retention and attainment.*

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## INTRODUCTION

The education of children is an enterprise that is the responsibility of families, schools, communities and governments. It spans a wide range of developmental settings, sectors, and occurs in formal and informal settings throughout the years of child and youth development. The aim is to equip individuals with the knowledge and skills they require to become responsible adults who make an active contribution to society.

Clearly, schools play a vital role in providing formal learning to children. This they should do in a nurturing and caring environment that will also support positive development. Schools should be places where children can come together to learn, play, interact and establish their social skills, as well as the abilities to read, write and do arithmetic. However, much informal learning occurs prior to the commencement of formal learning — through interactions in the home, play groups, child care centres, etc. Children traditionally consolidate this early informal learning with the formal development of their literacy and numeracy skills in the school environment. Research emphasises that pre-formal learning and early childhood learning are important determinants of later learning pathways.<sup>1</sup> Thus, the quality of the pre-school environment as well as that of teaching and support staff, and the characteristics of the school environment and curriculum all contribute to the quality of students' educational experiences. Each of these factors can have a profound impact on a range of developmental outcomes important for successful adaptation and function in Western Australia in the 21st century.

Education is a key factor that is known to build resilience and has potential to improve outcomes for Aboriginal people. Improving rates of participation and attainment of Aboriginal peoples in the education system are key strategies to improve socioeconomic and health outcomes, in particular. Many reasons have been offered for why the participation and attainment of Aboriginal people in education is below that of non-Aboriginal people. Factors contributing to this may include trouble accessing schools (particularly in remote areas), inability to afford education, and other community pressures and expectations affecting the ability and desire of families to get children to school.<sup>2</sup> There is currently a range of Aboriginal-specific education programmes designed to improve the educational experiences of Aboriginal



children but, despite this, Aboriginal children have significantly lower rates of school attendance and retention than their non-Aboriginal counterparts.

Measuring Aboriginal people's participation, performance and educational outcomes allows researchers and administrators to create an evidence base from which decisions can be made to improve the education of Aboriginal people as well as providing an indication of the relative disadvantage between Aboriginal children and other population groups. This chapter draws on a number of data sources to quantify this disadvantage and establish a context for the Western Australian Aboriginal Child Health Survey (WAACHS) results contained in subsequent chapters. The measures described here focus on issues of access to education (e.g. retention and participation) and effectiveness of the educational system (e.g. proportion meeting academic benchmarks and completing Year 12). In addition, the introductory parts of the chapter touch on some of the historical, social and cultural issues that have shaped Aboriginal education in Western Australia (and Australia), to provide a context for the analysis of survey data in subsequent chapters.

Despite the currently available sources of data that measure the educational participation, performance and outcomes of Aboriginal people, there is considerable scope for improvement in their measurement (in terms of breadth of available data and the quality and useability of existing data), both within Western Australia and Australia, and internationally.

## AN OVERVIEW OF THE SCHOOL EDUCATION SYSTEM

Governments have a statutory responsibility for educating children through the formulation of relevant policy and funding the delivery of schooling. The funding arrangements of governments (with regard to school education) are multifaceted, and include: the provision of funds to enable the implementation of new and existing policy initiatives; ensuring educational resources are sufficient and appropriately distributed; supporting families in meeting the financial costs of education; and promoting equitable access to education and training.

In Australia, state and territory governments have most of the responsibility for administering and funding school education. The Australian Government, in conjunction with the states and territories, provides the policy framework for the school education system, promoting consistency in the provision of education across Australia. It also has special responsibilities when it comes to the education of Aboriginal and Torres Strait Islander peoples, providing special grants to states and territories to address areas of particular need in Aboriginal education. This is in addition to the general funding that states and territories receive from the Commonwealth for educational purposes. It also has responsibilities to fund research and analysis to assist improvement in the quality of Aboriginal education.

## THE WESTERN AUSTRALIAN SCHOOL SYSTEM

The age at which compulsory schooling starts and ends varies across Australia. At the time of the survey in Western Australia, school attendance was compulsory from the beginning of the school year in which a child turned six until the end of the year in which they turned 15 years. The school leaving age in Western Australia was raised in January 2006, to extend the compulsory education period to the age of 16 years. It is expected to be lifted again, to 17 years of age, by 2008.<sup>3</sup> These recent legislative changes allow young people to either attend school or undertake formal training — as a result,



some 16 and 17 year-olds will be enrolled in school but not attend any of the final two years of schooling (Years 11 and 12).

Prior to the years of compulsory education, the Western Australian Department of Education and Training (DET) offers kindergarten and pre-school programmes for eligible children at their local or nearest school, or at the school or community kindergarten of their parents' choice. Kindergarten programmes are available to children who have/will have turned four by 30 June in any given year and these programmes run for the equivalent of four half days per week. Pre-primary programmes, which run for five full days per week, are available to children who have/will have turned five by 30 June in any given year. Schools may choose to 'phase-in' children's attendance at kindergarten and pre-primary during the first four weeks of the school year but all programmes must be running full-time by the beginning of week five. Parents are able to request that their child(ren) attend full-time in pre-primary, and/or the equivalent of four half days per week in kindergarten, from the first day of enrolment in school.

### ABORIGINAL KINDERGARTENS

There were 29 Aboriginal kindergartens operating in Western Australia in 2005. These kindergartens provide early childhood education programmes for both three and four year-old Aboriginal children. In addition to the general aims of all kindergartens, i.e. furthering the development of social, language, cognitive and physical skills, etc., Aboriginal kindergartens have a greater focus on:

- ◆ supporting and strengthening children's Aboriginal identity
- ◆ providing programmes which are inclusive of Aboriginal children's culture, language and learning styles
- ◆ family and community involvement
- ◆ providing Aboriginal children with opportunities to develop knowledge and skills in Standard Australian English
- ◆ addressing the disadvantages experienced by many young Aboriginal children.

Primary schooling in Western Australia provides a general elementary programme lasting seven years (up to and including Year 7). The main emphasis in early primary education is on developing basic language literacy and numeracy skills, health and social education, and creative activities. Upper primary schooling also focuses on developing these aspects, and provides additional opportunities to study other subject areas.

Students enter secondary school at Year 8 and typically undertake a general programme of study in the first two years. The core subjects are retained in later years, with students usually able to choose from a range of electives. There is a trend toward incorporating courses that suit the interests and needs of the students at a school, and an increasing amount of vocational education and training options have been incorporated into the secondary curriculum. Students completing Year 10 are usually eligible for Vocational Education and Training (VET) courses, whereas Year 12 completion is the minimum schooling requirement for entry into higher education and some other tertiary institutions.



## SETTING THE CONTEXT – ISSUES IN ABORIGINAL EDUCATION

The educational experiences and outcomes of Aboriginal peoples compare poorly with those of the non-Aboriginal population. As a result, Aboriginal students can experience greater difficulties in negotiating transition points in school and beyond. Poor educational outcomes among Aboriginal peoples have been evident for many decades and are influenced by a number of factors not shared by other Australians. Among the most pronounced disadvantages affecting the education of Aboriginal people are: the geographical dispersion of the population; minimal use or knowledge of Standard Australian English (which accounts for significant proportions of Aboriginal children who begin school in remote parts of Western Australia); and a high degree of chronic health conditions. These factors have existed for many decades and have had a cumulative impact on the educational outcomes of successive generations.

It has been argued that past policies, actions and attitudes toward Aboriginal people in Australia have generated intergenerational educational (as well as broader social) disadvantage.<sup>4</sup> There have been several landmark decisions and actions that have shaped the educational circumstances of Aboriginal people to the current day. Some of these relate to the realm of education and yet some of the most profound (particularly negative) effects on Aboriginal education can be traced back to broader historical events from colonisation onwards. The 1967 Referendum marked an important shift in the way government responsibilities for Aboriginal affairs were aligned, and coincided with a greater investment in formulating policies (including education-related policies) specifically geared toward improving the social and economic circumstances of Aboriginal people in Australia.

Over the past half century, the philosophy underpinning Aboriginal education policy and practice has moved from exclusion and segregation to greater cultural inclusiveness.<sup>5</sup> However, it has been argued that some elements of these earlier policies are still retained in present-day policies and practice, and that Aboriginal education has not received the attention it deserves nor been understood sufficiently by those responsible for educating Aboriginal people in the school system.<sup>4</sup>

The systematic exclusion of Aboriginal people in Australia from mainstream society has been extensively documented and is only touched on briefly here; nonetheless researchers regard the denial of Aboriginal people from access to land, culture, language, citizenship, employment and schooling (and forced removal of children from their families) over the course of the past two centuries as crippling legacies for Aboriginal communities and critical determinants of the poor state of Aboriginal education evident today.<sup>6</sup>

The survey results show that having a close relative who has been directly affected by forced separation has a negative impact on a child's educational outcomes. While some children overcome this type of adversity, for others it can take many generations of continuous access to education for a family to be able to overcome disadvantage and function effectively.<sup>7</sup> This point is reinforced by anecdotal evidence from schools, which suggests that the involvement of Aboriginal parents in their child's education is shaped by their own experience, i.e. parents who have had poor educational experiences are generally less likely to get involved in their children's schooling.<sup>8</sup> In many cases, this is because they do not have the skills to assist their children with school work. Further, children can adopt an attitude that doing well at school is either: of little value; something to be ashamed of; or simply unattainable, particularly if the prevailing attitude of parents is that school has been of little value to them.<sup>9</sup> All of these issues can contribute to an intergenerational cycle of educational disadvantage.





The effect of cultural orientation on Aboriginal children is disputed. On the one hand, it is argued that Aboriginal ceremonial and social obligations limit school attendance rates,<sup>10</sup> while it is also held that a strong cultural orientation promotes resilience and better educational outcomes. Cultural differences can put Aboriginal children at educational risk before they first walk through the school gate — and once in the school environment, learning can be restricted by a lack of understanding on behalf of teachers and other students.<sup>11</sup>

The issue of racism has been an undercurrent in most of the discussion concerning risk factors for poor educational outcomes for Aboriginal peoples. Most of the policies (educational and otherwise) up until the 1970s have either explicitly or implicitly incorporated racist ideology. Racism can break down self-esteem and promote aggressive behaviours, and has been known to isolate Aboriginal children and young people from both mainstream society and their own culture and community.<sup>12</sup>

Some of the issues outlined here are discussed further in the sections on *Government policy* and *Aboriginal education programmes* below. These sections outline the current policy framework for educating Aboriginal and other students in the school system, and mention some of the important programmes and initiatives in place at present.

## GOVERNMENT POLICY

### THE DEVELOPMENT OF POLICY

Prior to the 1960s, state governments had sole responsibilities for Aboriginal affairs, thus Aboriginal education policies differed across Australia. There was, however, a perception common to all state policies that Aboriginal people were inherently inferior and should receive minimal schooling.<sup>13</sup> This perception was consistent with the general policy of excluding Aboriginal people from contact with non-Aboriginal people and the specific policies in some states of excluding Aboriginal children from government-run schools which persisted into the 1950s. This ensured that accessing school education was, at best, likely to be difficult between colonisation and the 1960s. Indeed, estimates suggest that only a very small proportion of Aboriginal children in Australia in the 1940s were being educated in state schools. In total, only about a quarter were receiving any sort of formal education, mostly in institutions and particularly in Christian missions.<sup>14</sup>

The high number of Aboriginal children in Christian missions between the 1940s and 1970s was the result of earlier policies that effectively promoted racial assimilation. These types of overtones in Australian policy led to the practice of forcibly removing children from their families and placing them in missions and government-run institutions. The Western Australian government had the strongest backing to enforce these practices, as it was given guardianship of all Aboriginal children until 21 years of age. It has been well documented that the educational experiences of Aboriginal children in missions were far from ideal. Education often had a greater focus on Christian principles than formal education, with very little attention given to Aboriginal culture and languages.

While the exclusion of Aboriginal children from education was officially phased out by the 1950s, practices that effectively constituted exclusion have been reported into the 1970s. Education gradually became more accessible in the post-war period and coincided with an increase in the number of Aboriginal children attending state schools — however, participation was still mainly in primary schools, and levels of



school attendance and retention remained poor. In many respects, a similar statement about the degree of school engagement of Aboriginal people could be made today, suggesting that the legacies of decades of segregation from schooling and mainstream society have had a profound and long-lasting impact on the Aboriginal community.

Aboriginal-specific education policy was not afforded any notable attention by governments in Australia until around the 1970s, following the 1967 Referendum. This referendum provided the Commonwealth of Australia with the power to legislate on issues directly affecting Aboriginal peoples and led to a range of federal policy initiatives being implemented, often (but not always) run in conjunction with state and territory governments. It foreshadowed significant reform in Aboriginal education. Policy changes coincided with the introduction of the Aboriginal Study Grants Scheme (now ABSTUDY) in 1969 and the creation of the Commonwealth Department of Aboriginal Affairs in 1972. Both of these initiatives provided a strong impetus for improvements in participation and retention of Aboriginal students. These outcomes were seen as critical factors for improving skills and making Aboriginal self-determination a possibility.

The increased attention to Aboriginal education in the 1970s gradually gave rise to greater appreciation by Aboriginal people of the worth of school education and the perception that a secondary education was an advantageous pursuit. However, these views were undermined by poor job prospects for Aboriginal people and a discriminatory labour market. This often meant that the pathway of Aboriginal children from school to work was limited to low-skilled occupations.<sup>15</sup>

Throughout the 1970s and 1980s various inquiries — at the Commonwealth and state levels — and reviews concentrated on the state of Aboriginal education and quantified the disparity between Aboriginal and non-Aboriginal peoples' participation, retention and performance.<sup>16,17</sup> Often, these inquiries and reviews concluded that problems were endemic, although minor improvements were being made. There began to be a greater recognition that progress in educational outcomes were being hampered by a raft of issues outside of the traditional sphere of education, including physical health issues such as eye and ear disease. The notion of a holistic approach to the problems facing Aboriginal education was gaining acceptance by policy makers.

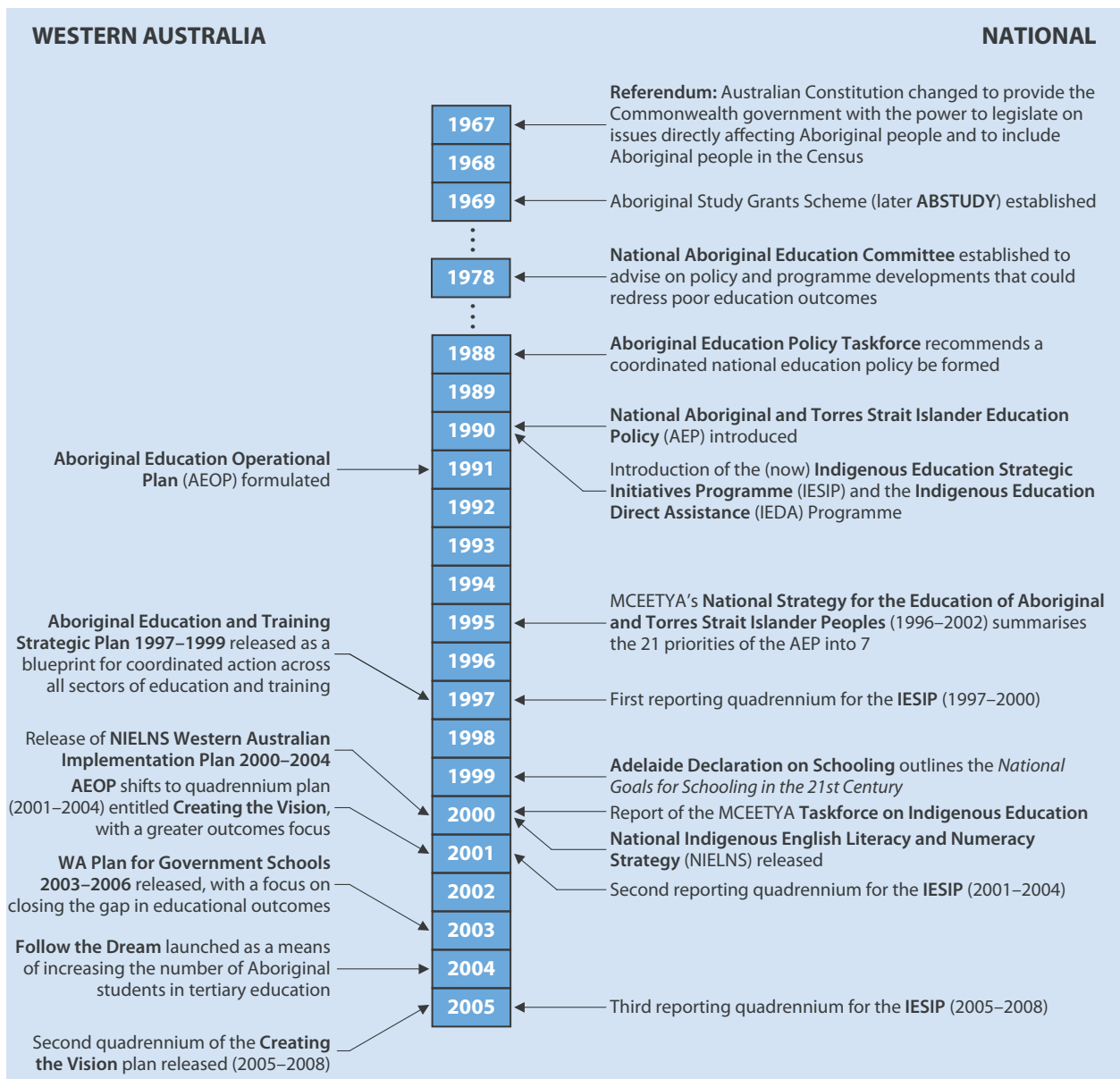
The report of the 1988 Aboriginal Education Policy Task Force recommended a coordinated National education policy be formed.<sup>16</sup> The Commonwealth and states agreed to this the following year, which led to the formation of the *National Aboriginal and Torres Strait Islander Education Policy (AEP)* in 1990, a policy that still remains in place today, albeit having undergone several revisions. This was perhaps the most significant development in the history of Aboriginal education in Australia, and the first attempt to set direction in the area of linking policy, schools and communities. However, the goals stipulated in the AEP did not address the wider social environment in which Aboriginal children and young people lived and, therefore, did not fully consider that poor outcomes were embedded in a range of institutional, historical and socioeconomic factors.<sup>4</sup> Various reviews of Aboriginal education have suggested that these deficiencies in the approach to Aboriginal education to the end of the 20th century were due to either: a lack of understanding of the complexity of the problems and the difficulty that schools would have in implementing new strategies and programmes; a lack of commitment to sustainable change; or leadership that was ineffective in implementing the policies and strategies that had been formulated.<sup>18,19</sup>



The report of the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) Taskforce on Indigenous education in 2000 was perhaps the first formal acknowledgment of many of these deficiencies and issues. The taskforce highlighted that the broader disadvantage, i.e. outside of educational disadvantage, faced by Aboriginal people was affecting the ability of policy makers, service providers and Aboriginal people themselves to improve educational outcomes.<sup>20</sup>

Even with the introduction of a nationwide policy on Aboriginal education and an increased focus on Aboriginal children in the education sector, some have observed that efforts to improve the relative disadvantage of Aboriginal children have been hampered by the inadequate capacity of many schools to implement the policies, plans and programmes designed by governments. In addition, there has been criticism that the policy process itself has, at times, been crisis-driven and not adequately strategic in its focus, so that the key problem areas have not always been addressed.<sup>4,19</sup>

FIGURE 2.1: TIMELINE OF ABORIGINAL EDUCATION DEVELOPMENT



## THE CONTEMPORARY PICTURE

The current paradigm for Aboriginal education policy development recognises that education policy cannot be developed in isolation from other areas that address social and economic wellbeing. This line of thinking is predicated on the notion that self-determination is a critical enabler in improving the wellbeing of Aboriginal peoples. However, the success of self-determination itself can be undermined by a lack of educational skills to effectively manage the social and economic development that governments have put in place.<sup>4</sup>

At the national level, there have been recent changes to the way in which the broader arena of Aboriginal affairs is structured and administered. These changes, documented in the Australian Government statement on New Arrangements in Indigenous Affairs,<sup>21</sup> include the formation of the Office of Indigenous Policy Coordination (OIPC) within the Department of Immigration and Multicultural and Indigenous Affairs (DIMIA). The OIPC has been established to ensure a whole-of-government approach to policy development, including education policy. The delivery of programmes and services is now coordinated by the network of Indigenous Coordination Centres (ICCs) which are managed by the OIPC.

### National education policies

The Council of Australian Governments (COAG) is responsible for initiating, developing and monitoring the implementation of policy reforms which are of national significance and which require cooperative action by governments in Australia. These responsibilities extend to Aboriginal education and training. In the school sector, MCEETYA facilitates coordination and consultation between governments in relation to the development and implementation of policy. Through MCEETYA, all Australian governments have committed to improving education and training outcomes for Aboriginal and non-Aboriginal Australians. In May 2005, MCEETYA agreed that bringing about improvements in the early literacy and numeracy skills of Aboriginal students should be the top educational priority for Australian governments.<sup>22</sup>

The AEP is Australia's national policy on Aboriginal education, and has been in place since 1990. The policy has been endorsed by the Australian, state and territory governments and essentially aims to achieve better educational results for Australia's Aboriginal and Torres Strait Islander peoples.

Some of the important tenets of the AEP include the enabling of Aboriginal and Torres Strait Islander students to have an appreciation of their history, cultures and identity, and to provide all Australian students with an understanding of, and respect for, Aboriginal and Torres Strait Islander traditional and contemporary cultures. Meeting these goals is considered to be dependent on the professional development of staff, the inclusion of Aboriginal staff in decision-making, and the active involvement of Aboriginal teachers and teaching assistants in school matters.<sup>10</sup>



## GOALS OF THE NATIONAL ABORIGINAL AND TORRES STRAIT ISLANDER EDUCATION POLICY (AEP)

The AEP has 21 long term goals, which are categorised into four major goals<sup>23</sup> These goals span all sectors, from early childhood to higher education:

- ◆ Major Goal 1 — Involvement of Aboriginal and Torres Strait Islander people in educational decision-making
- ◆ Major Goal 2 — Equality of access to educational services
- ◆ Major Goal 3 — Equity of educational participation
- ◆ Major Goal 4 — Equitable and appropriate educational outcomes.

The goals and objectives of the AEP are consistent with the national goals for all students, articulated in the 1999 Adelaide Declaration on *National Goals for Schooling in the Twenty-first Century*. The *Goals* underscore all government initiatives in the education sector. While these 18 goals are applicable to all school students, they are particularly relevant to Aboriginal students. In addition, two of the goals have specific relevance for Aboriginal students — Goals 3.3 and 3.4 state that schooling should be socially just, so that:

*‘Aboriginal and Torres Strait Islander students have equitable access to, and opportunities in, schooling so that their learning outcomes improve and, over time, match those of other students’; and*

*‘all students understand and acknowledge the value of Aboriginal and Torres Strait Islander cultures to Australian society and possess the knowledge, skills and understanding to contribute to, and benefit from, reconciliation between Indigenous and non-Indigenous Australians’.<sup>24</sup>*

These goals have an emphasis on lifelong learning as well as building the social and emotional skills of students. This broader focus recognises that social justice is predicated upon all students learning about Aboriginal cultures and therefore has a dual purpose for Aboriginal studies in school — improving the self-esteem of Aboriginal students and making the wider community more knowledgeable about Aboriginal peoples and their cultures.

Having a culturally inclusive schooling environment is seen as a remedy to the educational disadvantage of Aboriginal peoples. This issue is addressed and articulated in MCEETYA’s *National Statement of Principles and Standards for More Culturally Inclusive Schooling in the 21st Century*.<sup>5</sup> In past years, the Indigenous Education, Employment, Training and Youth Taskforce (IEETY) formed part of MCEETYA’s approach to achieving a more culturally inclusive educational environment (and improving educational outcomes in general) for Aboriginal students. While the IEETY Taskforce no longer exists, MCEETYA are currently devising a new structure for setting directions in Aboriginal education and training, including the development and implementation of strategic initiatives such as the *National Statement*.



MCEETYA research highlights that educational success is predicated upon two things:

- ◆ having teachers who are committed to improving outcomes for Aboriginal students and are able to tailor classroom experiences to meet individual and cultural differences
- ◆ learning environments that are both age and developmentally appropriate as well as culturally appropriate.<sup>20</sup>

### Education policies in the Western Australian jurisdiction

The national policies set by the Australian Government are broadly applicable in each of the states and territories, and are complemented by state- and territory-specific policies. In Western Australia, the primary strategy for Aboriginal education in government schools is documented in the *Aboriginal Education Operational Plan* and its foundation planning documents, *Creating the Vision* and *Making it Happen*. These plans were developed by the (then) Department of Education to assist the acceleration of improvement in Aboriginal education and close the education divide between Aboriginal and non-Aboriginal students. The current plan covers the quadrennium 2005–2008 and has a strong ‘outcomes focus’ in line with the general shift to outcomes-based education. *Creating the Vision* supports the *National Goals for Schooling in the Twenty-first Century* and the *Western Australian Plan for Government Schools 2003–2006*. *Creating the Vision* views Aboriginal students as ‘mainstream’ students, and is underpinned by a philosophy that recognises and supports Aboriginal young people’s differences as strengths. To this end, there is a focus on culturally sensitive, supportive and nurturing environments to assist learning.<sup>25</sup>

In the Catholic education system, the guiding principles and procedures for Aboriginal education are stipulated in the Catholic Education Commission of Western Australia’s *Policy Statement on Aboriginal Education*.<sup>26</sup> This statement encapsulates many of the philosophies inherent in government school Aboriginal education policies — including a focus on reconciliation and social justice issues. The position of the Catholic education system on these issues is described more fully in the *National Statement on Educating for Justice, Truth and Reconciliation*.<sup>27</sup>

## ABORIGINAL EDUCATION PROGRAMMES

Educational programmes that are appealing and appropriate can make schooling a more attractive proposition for Aboriginal students, and have been cited as contributing to increased enrolments and attendance in post-compulsory schooling years.

### National programmes

As discussed above, the Australian Government has special responsibilities when it comes to the education of Aboriginal and Torres Strait Islander peoples. The Australian Government funds the core of Aboriginal education and training programmes in Australia — these are designed to be strategic intervention programmes, which supplement general programmes. Programmes are administered by the Australian Government Department of Education, Science and Training (DEST), with funding appropriated through the *Indigenous Education (Targeted Assistance) Act 2000*.

While DEST provide funding for Aboriginal education and training programmes in government, Catholic and Independent schools, there are some differences in the



types of programmes that are administered between these school systems and between schools in different states and territories within the same school system. Some of these differences are touched on below.

One of the more important recent developments stemming from Aboriginal policy directions is the Indigenous Education Strategic Initiatives Program (IESIP). IESIP is designed to improve literacy, numeracy, education outcomes, enrolments, and inclusion in decision-making, in line with the goals of the AEP. Along with the Indigenous Education Direct Assistance (IEDA) programme, the IESIP offers supplementary recurrent assistance to education and training providers (this includes organisations and education systems in the government and non-government sectors, although it is restricted to schools or systems with 20 or more Aboriginal students).<sup>10</sup> IESIP also includes a number of programme initiatives, such as the National Indigenous English Literacy and Numeracy Strategy (NIELNS) and English as a Second Language – Indigenous Language Speaking Students, among others.

MCEETYA sets the priorities for the IESIP, however, each education provider who receives funding through the programme determines the targets to improve the educational outcomes of Aboriginal people, in partnership with the Commonwealth. These agreements are known as Indigenous Education Agreements.

IEDA programmes have been established to improve Aboriginal community involvement in schooling. At the time of the WAACHS survey, Aboriginal Student Support and Parent Awareness (ASSPA) committees were an important mechanism for enabling parents to get involved in educational decision-making in the school and helping to ensure that Aboriginal people's interests and goals were attended to (although this approach has now been superseded — see section on *The Western Australian focus*, below).

The NIELNS forms part of the IESIP and aims to ensure that Aboriginal students attain levels of literacy and numeracy comparable to other students. In short, NIELNS focuses on six factors in trying to achieve the broad objective of educational parity. These include: improving attendance; overcoming hearing and nutrition problems; positive pre-school experiences; getting good teachers; using the best teaching methods (part of this is appreciating the importance of Aboriginal perspectives in relating to Aboriginal students); and achieving accountability.<sup>28</sup> Further, the NIELNS aims to ensure that all children leaving primary school should be numerate and able to read, write and spell at an appropriate level. In the Catholic system, the Raising Achievement in Schools (RAISe) programme is an important whole-of-school literacy approach that has been widely implemented in schools in recent years.

### The Western Australian focus

In the Western Australian jurisdiction, delivery of education programmes to Aboriginal students in government schools is supported by the Aboriginal Support Network, comprising the Indigenous Participation and Achievement Standards Directorate, district-based Aboriginal Liaison Officers, and school-based Aboriginal and Islander Education Officers (AIEOs).



## ABORIGINAL AND ISLANDER EDUCATION OFFICERS (AIEOs) AND ABORIGINAL TEACHING ASSISTANTS (ATAs)

AIEOs (government schools) and ATAs (Catholic schools) are employed in schools to provide support and assistance to Aboriginal students, carers, teachers and the school community through their knowledge, understanding and sharing of Aboriginal history, language and culture. The role of the AIEO is designed to help ease the barriers to educational outcomes that Aboriginal students may encounter in the education system. As such, they can have an important influence on the behaviour and performance of Aboriginal students.

In the government school system, the allocation of AIEOs is based on a formula which takes account of the size of the Aboriginal student population, the year that these students are enrolled in, and the level of social disadvantage in the school community (see section entitled *The socioeconomic status of schools* in Chapter 3).

For the remainder of this publication, Aboriginal student support officers in government and Catholic schools will be referred to as AIEOs.

The Catholic and Independent school systems work closely with the government in providing Aboriginal education before and after school entry. As such, the programmes and Professional Development activities tend to be implemented and accessed in all school systems. The Aboriginal Education and Training Council (AETC) is the state ministerial advisory body on Aboriginal education and training, and, among other roles, provides a forum to enable a consistent approach to Aboriginal education across systems in Western Australia.

In recent years, there has been a shift from a highly centralised system of programmes, with little scope for Aboriginal ownership, to a more devolved system where individual schools are key in the decision-making process. Locally-specific aspirant programmes are an important part of the make-up of Aboriginal education programmes in most Western Australian schools, although programmes developed for the entire school system are still employed. *Follow the Dream* is the main programme developed for Aboriginal students in Western Australian schools. It aims to help secondary school students get through high school and into university education.

Enabling the parents of Aboriginal students and Aboriginal communities to get involved in educational decision-making in schools, and ensuring that Aboriginal people's interests and goals are attended to, has been the focus of a number of Aboriginal education programmes in recent years. Establishing ASSPA committees in schools was previously the prime mechanism for stimulating community involvement. However, this approach has now been superseded by a Whole of School Intervention Strategy, which incorporates elements such as the Parent School Partnerships Initiative (PSPI).





## ENGAGING ABORIGINAL PARENTS AND COMMUNITIES IN SCHOOL DECISION-MAKING

At the time of the survey, Aboriginal Student Support and Parent Awareness (ASSPA) committees were operating in most schools with Aboriginal students, with the aim of improving parental involvement in the educational decision-making process. The ASSPA scheme was operated by the Australian Government Department of Education, Science and Training (DEST) and provided funding to school and pre-school based parent committees, enabling problems in Aboriginal education to be addressed at a local, school-specific level. Funding levels depended on the number of Aboriginal students in the school, and were provided under the terms of a binding funding contract that stipulated planned activities during the year. At the end of each year, ASSPA committees reported to DEST on how funds were spent and what activities were completed.<sup>29</sup>

In 2005, the ASSPA scheme was effectively superseded by the Parent School Partnerships Initiative (PSPI). The PSPI, like ASSPA, requires providers to report to DEST on planned activities and outcomes. The PSPI encourages parents of Aboriginal students, Aboriginal communities and schools to work together in addressing local barriers to education. Specifically, the PSPI aims to improve school attendance and literacy and numeracy skills, and increase Year 12 retention and the number of successful Year 12 completions.<sup>30</sup>

## THE RELATIVE DISADVANTAGE OF ABORIGINAL STUDENTS IN THE EDUCATION SYSTEM

This section quantifies the degree of disadvantage that Aboriginal children experience in the Western Australian education system. Several robust measures of participation, retention and attainment in school education have been drawn upon to describe this disadvantage. These data are sourced from a mix of administrative and survey sources, primarily collected and/or disseminated by DET and the Australian Bureau of Statistics (ABS). This description provides context to the WAACHS school, staff and student estimates that follow. The other chapters in this volume then describe some of the key antecedents and associations that may give rise to this disadvantage.

It should be noted that the WAACHS included a number of similar measures to those presented below. Despite scope and methodological differences with the WAACHS, the results reported in this section are consistent with survey results. This has enabled comparison between Aboriginal and non-Aboriginal children, and across all schools in Western Australia and Australia. Time series data have also been presented and can, to a degree, provide an insight into how policy and other changes have impacted Aboriginal student outcomes over time.

### PARTICIPATION AND RETENTION

Historically, Aboriginal children have relatively low levels of participation in the formal education system, from pre-school years to post-compulsory education. While this is partly true today, there has been significant progress in raising the participation levels of Aboriginal children in the last 30 years. There were few Aboriginal students who stayed on to Years 11 and 12 in the early 1970s, whereas participation rates of



Aboriginal and non-Aboriginal children in primary and compulsory secondary education have been similar in recent years. At older age groups (especially at post-compulsory schooling ages), Aboriginal children are much less likely to be engaged in the school system than other children.<sup>28</sup> While the fact that almost all Aboriginal students in younger age groups are enrolled in school can be regarded as a positive outcome, it masks the reality that Aboriginal children enrolled in school have average rates of school attendance considerably lower than non-Aboriginal children (see Chapter 4 for more details on school attendance rates and the associations with school, carer and family factors).

Significant increases in the proportion of Aboriginal people participating in post-school education have been observed in recent decades also, particularly in TAFE. This reflects improvements in retention rates over time. However, many of these post-secondary students are enrolled in enabling and non-award courses, illustrating that schools continue to have problems servicing Aboriginal students.

In pre-school years, there are lower proportions of Aboriginal children enrolled when compared with non-Aboriginal children. This is true for both males and females.<sup>31</sup>

The following section uses data compiled by the ABS in order to set the context of school participation and retention across all schools in Western Australia. These data can also be used to compare the differences in participation and retention between Aboriginal and non-Aboriginal students. For the purposes of comparability with the WAACHS data, the ABS data provided below relate to either 2001 or 2002. In addition, pre-school participation rate data have been sourced from the *National Indigenous Preschool Census*.

It should be noted that, in Western Australia, it is compulsory for a child to begin formal schooling from the beginning of the school year in which they turn six. At the time of the survey, compulsory schooling finished at the end of the year in which a child turned 15 years (these arrangements have since changed and are detailed in the section entitled *The Western Australian school system*, earlier in this chapter). However, the start and end ages of compulsory schooling differ between the state and territory jurisdictions of Australia.

## Participation – All children

The school age participation rate is the number of students of a particular age expressed as a proportion of the total population of the same age. It indicates the proportion of the population who are enrolled at school at a given point in time.

In both Western Australia and Australia, age participation rates in school for all children remain close to 100 per cent at all ages from six years to 14 years (Table 2.1). Rates drop at age 15 years (to 90.4 per cent in Western Australia), coinciding with the age at which compulsory schooling ends. There is a marked drop in the participation levels at ages 16 years and onwards, with most 18 and 19 year-olds either in the work force, looking for work or studying at a tertiary institution.

While the rates of participation in the compulsory schooling years are generally higher in Western Australia than Australia, the reverse was true when considering post-compulsory schooling.



## Participation – Aboriginal children

Of Aboriginal children aged 10–14 years in Australia in 2001, 87.2 per cent were participating in school compared with 98.3 per cent of all Australian children. A much lower proportion of 15–19 year-old Aboriginal people were in school (32.9 per cent) compared with all people aged 15–19 years (50.2 per cent) (Table 2.1).

In recent years, almost nine in every ten Aboriginal children aged four years attended pre-school (88.8 per cent) (Table 2.2). In Western Australia, school participation rates were relatively similar between Aboriginal and all school-aged children, up until the last few years of compulsory schooling (Table 2.3). Beyond the age of compulsory schooling, school participation rates among Aboriginal children were much lower than among all children. Aboriginal student school participation rates fell sharply after age 14 years, to 78.2 per cent (CI: 71.4%–84.4%) of 15 year-olds and 24.0 per cent (CI: 17.9%–30.7%) of 17 year-olds.

In the post-compulsory years, there was no difference in participation rates between males and females (Table 2.4). By level of relative isolation, school participation rates for 16–17 year-olds were highest in the Perth metropolitan area at 48.9 per cent (CI: 38.4%–58.7%) and lowest in areas of low or moderate relative isolation (29.7 per cent; CI: 23.2%–37.3%) (Table 2.5). See Chapter 8 for an analysis of the associations between school participation, retention and academic performance among Aboriginal young people.

## Comparing school retention rates

An alternative measure of the degree to which children engage or participate in the school education system is the apparent retention rate. This is a measure of student progression through to the final years of school. They are described as ‘apparent’ because they estimate the proportion of students who continue studying to a certain year at school based on the respective cohort group at the commencement of secondary study (see *Glossary* for more details on *apparent retention rate*).

The majority of Aboriginal and non-Aboriginal children in Western Australia that start secondary schooling (Year 8) continue through to Year 10 (89.8 per cent). The proportion of Aboriginal students who continue into the post-compulsory secondary schooling environment is substantially lower — dropping to around half (of those that started Year 8) by Year 11 (53.8 per cent) and a quarter by Year 12 (24.9 per cent). In contrast, about three-quarters (76.2 per cent) of non-Aboriginal students continued to Year 12 (Table 2.6).

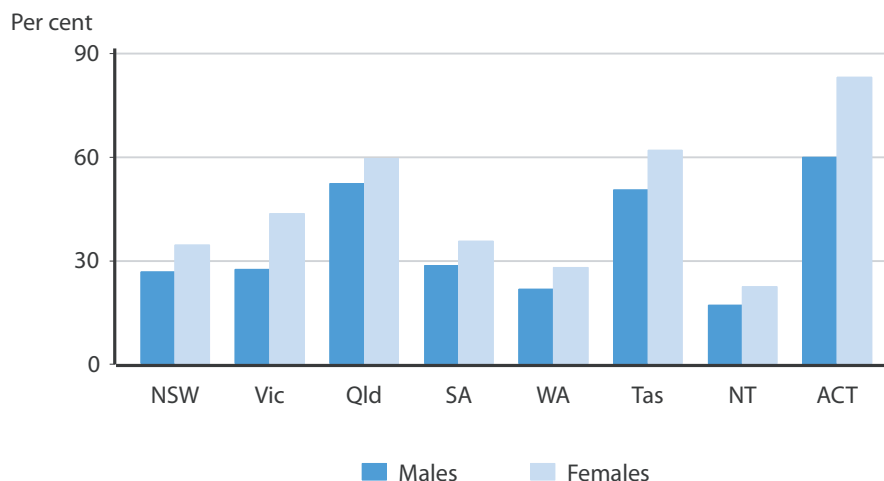
As a result, while the ratio of the apparent retention rates of non-Aboriginal and Aboriginal people to Year 10 was 1.1 for both males and females in 2002, the ratio was 3.3 for males and 2.9 for females when considering Year 12 retention.

Apparent retention rates among Aboriginal students were relatively similar across all states and territories up to the end of compulsory schooling (with the exception of the Northern Territory, which has significantly lower rates). However, at Year 12, there was a marked difference in retention by state and territory. Apart from retention rates in the Northern Territory, retention rates for Aboriginal students to Year 12 in Western Australia have generally been the lowest among all states and territories (Figure 2.2). In 2002, around a quarter of Aboriginal students in Western Australia that had started secondary schooling in 1998 were attending Year 12, with more females (28.1 per cent) than males (21.7 per cent) staying on to Year 12. Year 12 retention rates were highest in



the Australian Capital Territory (69.5 per cent) and Tasmania (56.8 per cent), although these states/territories have a very small Aboriginal population. However, states/territories with relatively large Aboriginal populations also had considerably higher Year 12 retention rates than those reported in Western Australia (from 30.6 per cent in New South Wales to 55.9 per cent in Queensland).

**FIGURE 2.2:** ABORIGINAL SCHOOL STUDENTS — APPARENT RETENTION RATES TO YEARS 12 (FROM YEAR 7/8), BY STATE OR TERRITORY, 2002 (a)



(a) The retention rates are for full-time students. The exclusion of part-time students from calculations has particular implications for the interpretation of results for South Australia. The small number of Aboriginal students in some jurisdictions (the Australian Capital Territory and Tasmania) can result in large fluctuations in the apparent retention rates when disaggregated by sex and other variables.

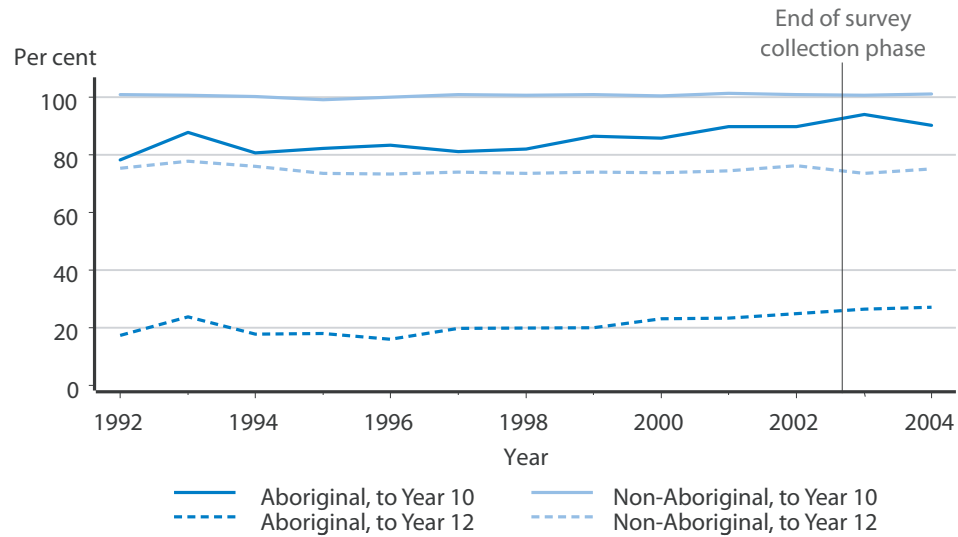
Source: Table 2.7

Despite the divide in retention rates between Aboriginal and non-Aboriginal students, modest improvements in the retention rates for Aboriginal students to Years 10 and 12 have occurred in Western Australia in recent years. Between 1992 and 2002, the apparent retention rate to Year 10 increased from 78.1 per cent to 89.8 per cent, while Year 12 rates improved from 17.2 per cent to 24.9 per cent — still around 50 percentage points lower than non-Aboriginal students (Table 2.8).

Figure 2.3 shows that, of those students who begin secondary schooling, the proportion of Aboriginal students who stay in the school system to Year 10 is about the same as the proportion of non-Aboriginal students who continue to Year 12.



**FIGURE 2.3:** ABORIGINAL AND NON-ABORIGINAL SCHOOL STUDENTS — APPARENT RETENTION RATES TO YEARS 10 AND 12 (FROM YEAR 8), BY YEAR



Source: Table 2.8

## EDUCATIONAL ATTAINMENT

Measures of school academic performance consistently indicate that Aboriginal students have lower levels of achievement than the non-Aboriginal student population. The reasons for this are multifaceted and complex and appear to be primarily related to the impact of other aspects of disadvantage which impact on students’ capacity to undertake the academic tasks of the primary and secondary education systems.<sup>32</sup> Nonetheless, the Aboriginal student population has lower average levels of performance in national school benchmark tests and, when engaged in post-compulsory secondary education, are less likely to attain a Year 12 certificate.

It should be noted that, although the attainment data in this section focus predominantly on Western Australia as a whole, there are regional and community-specific differences. The geographic disparity of the Aboriginal population and differences in community types give rise to differences in socioeconomic status, cultural beliefs and values that, in turn, can create gaps in educational outcomes. As such, it is difficult to make generalisations about the types of educational problems that Aboriginal people face, and the reasons for those problems.

### Years 3, 5 and 7 benchmark tests

Academic achievement in primary school years is a strong precursor to successful secondary school transition and performance. DET has aggregate results of student performance in national benchmark tests in Years 3, 5 and 7 across a range of subject areas, including reading, writing, spelling and numeracy. In short, the benchmarks represent the agreed minimum acceptable standard in a particular area of study. Students who do not meet these standards are considered to be at risk of not making sufficient progress at school.



At all year levels, and within each area of study, a lower proportion of Aboriginal students attained the required benchmark level. Achievement levels for both Aboriginal and non-Aboriginal students tended to decline at higher year levels, although this was more pronounced among Aboriginal students. As a result, the disparity in the proportion of Aboriginal and all students who achieved national benchmarks was higher in Year 7 than in Years 3 and 5. As an example, in 2001, 70.5 per cent of Year 3 Aboriginal students achieved the national benchmark in numeracy compared with 91.0 per cent of all Year 3 students in Western Australia — a difference of 20 percentage points. This difference increased to 31 percentage points in Year 5 numeracy testing and 42 percentage points in Year 7 numeracy testing (Figure 2.4).

When compared with all students, the best relative results in Years 3 and 5 testing for Aboriginal students appeared to be in reading. While the best result in Year 7 was evident in spelling, the majority of Aboriginal students had still not met the benchmark (46.0 per cent).

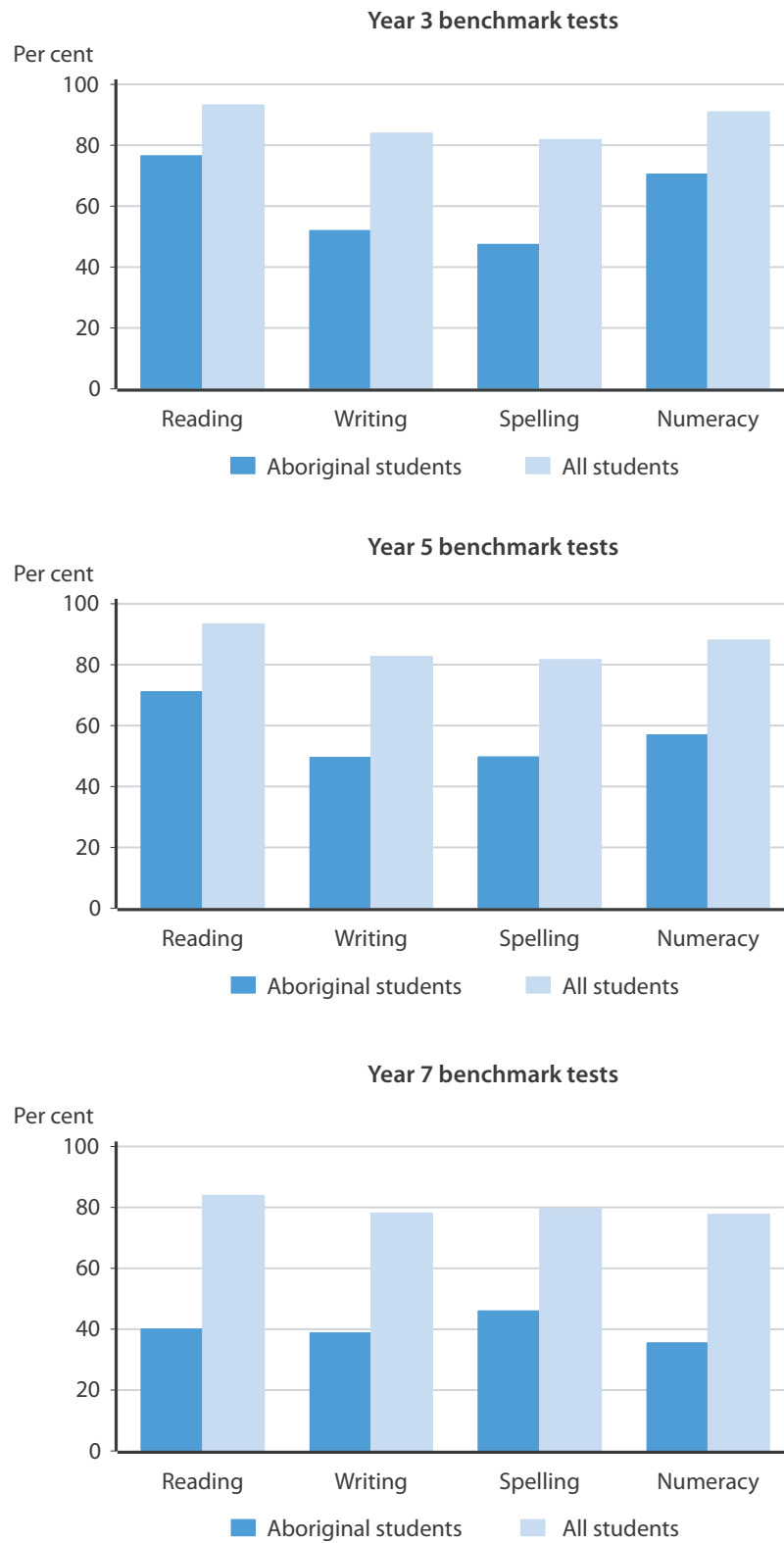
### Students achieving a Year 12 certificate

Another indicator of school academic performance is the proportion of students who successfully complete their schooling. The measure used here is the number of students who attain a Year 12 certificate (Western Australian Certificate of Education) as a proportion of those students who commenced Year 11 in the previous year.

In 2001, 22.2 per cent of Aboriginal students who had commenced Year 11 in 2000 (Government and Catholic schools) achieved a Year 12 certificate. The corresponding figure for non-Aboriginal students in Western Australia was 62.0 per cent.



**FIGURE 2.4:** PROPORTION OF (GOVERNMENT AND NON-GOVERNMENT) SCHOOL STUDENTS ACHIEVING NATIONAL BENCHMARKS IN READING, WRITING, SPELLING AND NUMERACY, 2001



Source: Table 2.9



## ENDNOTES

1. Zubrick SR, Silburn SR, Prior MR. Resources and contexts for child development: Implications for children and society. In: Prior MR, Richardson S, editors. *No time to lose. The well-being of Australia's children*. Carlton: Melbourne University Press; 2005. p. 161–200.
2. Education of Aboriginal and Torres Strait Islander Peoples. In: Australian Bureau of Statistics. *Australian social trends 2002*. Canberra: Australian Bureau of Statistics (Catalogue No. 4102.0); 2002.
3. Government of Western Australia. *Acts Amendment (Higher School Leaving Age and Related Provisions) Bill 2005*. Perth: Parliament of Western Australia; 2005.
4. Beresford Q. The Context of Aboriginal Education. In: Beresford Q, Partington G, editors. *Reform and resistance in Aboriginal education*. Perth: University of Western Australia Press; 2003. p. 10–40.
5. Ministerial Council on Education, Employment, Training and Youth Affairs. *National statement of principles and standards for more culturally inclusive schooling in the 21st century*. [Online] MCEETYA; 2000; [cited 2005 Nov 11]; Available from: URL: <http://www.mceetya.edu.au/pdf/principl.pdf>
6. Human Rights and Equal Opportunity Commission. *Bringing them home. Report of the national inquiry into the separation of Aboriginal and Torres Strait Islander children from their families*. Canberra: HREOC; 1997.
7. Comer J. Cited in Finnegan W. *Cold new world: Growing up in a harder country*. New York: Random House; 1998.
8. Human Rights and Equal Opportunity Commission. *National Inquiry into Rural and Remote Education Inquiry*. [Online] HREOC; 1999 [cited 2005 Dec 29]. Available from: URL: [http://www.hreoc.gov.au/human\\_rights/rural\\_education/](http://www.hreoc.gov.au/human_rights/rural_education/)
9. Purdie N, Tripcony P, Boulton-Lewis G, Fanshawe J, Gunstone A. *Positive self-identity for Indigenous students and its relationship to school outcomes*. Canberra: Commonwealth Department of Education, Training and Youth Affairs; 2000.
10. Department of Education, Science and Training. *National report to Parliament on Indigenous education and training, 2003*. Canberra: Commonwealth of Australia; 2005.
11. Steering Committee for the Review of Government Service Provision. *Overcoming Indigenous disadvantage: Key indicators 2003*. Canberra: Productivity Commission; 2003.
12. Gordon S, Hallahan K, Henry D. *Putting the picture together. Inquiry into response by government agencies to complaints of family violence and child abuse in Aboriginal communities*. Perth: State Law Publisher; 2002.
13. Bateman FEA. *Report of the survey of Native affairs*. Perth: Government of Western Australia; 1948.
14. Neville AO. *Australia's coloured minority: Its place in the community*. Sydney: Currawong; 1947.
15. Watts BH. *Aboriginal futures: Review of resources and developments and related policies in the education of Aborigines*. Brisbane: Education Research Development Committee; 1981.
16. Aboriginal Education Policy Task Force. *Report of the Aboriginal Education Policy Task Force*. Canberra: Department of Employment, Education and Training; 1988.
17. Government of Western Australia. *Report of the Western Australian Royal Commission into Aboriginal Affairs*. Perth: Government of Western Australia; 1974.
18. Ministerial Council on Education, Employment, Training and Youth Affairs. *A National strategy for the education of Aboriginal and Torres Strait Islander peoples 1996–2002*. Canberra: Department of Employment, Education, Training and Youth Affairs; 1995.
19. Northern Territory Department of Education. *Learning lessons: An independent review of Indigenous education in the Northern Territory*. Darwin: Department of Education; 1999.
20. Ministerial Council on Education, Employment, Training and Youth Affairs. *Report of MCEETYA Taskforce on Indigenous Education*. Canberra. MCEETYA; 2000.





21. Office of Indigenous Policy Coordination. *New Arrangements in Indigenous Affairs*. [Online] Canberra: Australian Government Department of Immigration and Multicultural and Indigenous Affairs; 2004; [cited 2005 Nov 15]. Available from: URL: [http://www.oipc.gov.au/About\\_OIPC/Indigenous\\_Affairs\\_Arrangements/default.asp](http://www.oipc.gov.au/About_OIPC/Indigenous_Affairs_Arrangements/default.asp)
22. Ministerial Council on Education, Employment, Training and Youth Affairs. *Information Statement 18th MCEETYA meeting Canberra, 12–13 May 2005*. [Online] Canberra: MCEETYA; 2005. [cited 2005 Oct 3]. Available from: URL: <http://www.mceetya.edu.au/meetings/meet18.htm>
23. Department of Education, Science and Training. [Online] [cited 2005 Aug 9]. Available from: URL: <http://www.dest.gov.au/archive/schools/indigenous/aep.htm>
24. Ministerial Council on Education, Employment, Training and Youth Affairs. *The Adelaide declaration on National goals for schooling in the twenty-first century*. [Online] 1999 [cited 2006 Jan 5]. Available from: URL: [http://www.dest.gov.au/sectors/school\\_education/policy\\_initiatives\\_reviews/national\\_goals\\_for\\_schooling\\_in\\_the\\_twenty\\_first\\_century.htm](http://www.dest.gov.au/sectors/school_education/policy_initiatives_reviews/national_goals_for_schooling_in_the_twenty_first_century.htm)
25. Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA). *National Report on Schooling in Australia*. [Online] 2001 [cited 2006 Jan 9]. Available from: URL: <http://cms.curriculum.edu.au/anr2001/>
26. Catholic Education Commission of Western Australia. *Policy Statement on Aboriginal Education Policy Statement 2 – C1*. [Online] Perth: Catholic Education Commission of Western Australia; 2000. [cited 2005 Dec 6]; Available from: URL: [http://web1.ceo.wa.edu.au/pls/portal30/docs/FOLDER/CA\\_CATH\\_ED/CEO\\_REP\\_COMMISSION/POLICIES/SCHOOLANDCOMMUNITYOPERATIONS/2-C1%20ABORIGINAL%20EDUCATION.PDF](http://web1.ceo.wa.edu.au/pls/portal30/docs/FOLDER/CA_CATH_ED/CEO_REP_COMMISSION/POLICIES/SCHOOLANDCOMMUNITYOPERATIONS/2-C1%20ABORIGINAL%20EDUCATION.PDF)
27. National Catholic Education Commission. *Education for justice truth and reconciliation: A new partnership with Indigenous peoples of Australia*. [Online] Canberra: National Catholic Education Commission; 1998. [cited 2005 Dec 6]; Available from: URL: <http://www.ncec.catholic.edu.au/justice.pdf>
28. Mellor S, Corrigan M. *The case for change: A review of contemporary research in Indigenous education outcomes*. Melbourne: Australian Council of Educational Research; 2004.
29. Department of Education, Science and Training. *A guide for Aboriginal student support and parent awareness (ASSPA) committees*. [Online] Canberra: Department of Education, Science and Training; 2004. [cited 2006 Jan 5]; Available from: URL: [http://www.dest.gov.au/sectors/indigenous\\_education/publications\\_resources/profiles/guide\\_for\\_aboriginal\\_student\\_support.htm](http://www.dest.gov.au/sectors/indigenous_education/publications_resources/profiles/guide_for_aboriginal_student_support.htm)
30. Department of Education, Science and Training. *Indigenous Education Programme Provider Guidelines 2005–2008*, [Online] Canberra: Department of Education, Science and Training; 2005. [cited 2005 Nov 11]; Available from: URL: [http://www.dest.gov.au/sectors/indigenous\\_education/programmes\\_funding/forms\\_guidelines/IEP\\_Provider\\_Guidelines\\_2005\\_2008/](http://www.dest.gov.au/sectors/indigenous_education/programmes_funding/forms_guidelines/IEP_Provider_Guidelines_2005_2008/)
31. Attending preschool. In: Australian Bureau of Statistics. *Australian social trends 2004*. Canberra: Australian Bureau of Statistics (Catalogue No. 4102.0); 2004. p. 98–100.
32. Department of Indigenous Affairs. *Overcoming Indigenous Disadvantage in Western Australia Report*. Perth; Department of Indigenous Affairs; 2005.



**TABLE 2.9:** ABORIGINAL AND ALL STUDENTS (a) — PROPORTION ACHIEVING NATIONAL BENCHMARKS IN READING, WRITING, SPELLING AND NUMERACY, 2001 (per cent)

<i>Benchmark test</i>	<i>Aboriginal students</i>	<i>All students</i>
Year 3 benchmark test		
Reading	76.6	93.3
Writing	52.1	84.0
Spelling	47.5	81.9
Numeracy	70.5	91.0
Year 5 benchmark test		
Reading	71.3	93.5
Writing	49.5	82.7
Spelling	49.7	81.8
Numeracy	56.9	88.2
Year 7 benchmark test		
Reading	40.0	83.9
Writing	38.9	78.2
Spelling	46.0	79.6
Numeracy	35.5	77.8

(a) Includes government and non-government schools.





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### WESTERN AUSTRALIA'S SCHOOLS

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*Schools have a significant influence on the lives of students. In addition to the learning opportunities they provide through the curriculum, schools also play a critical role supporting students' socialisation and the development of life skills and competencies. The experiences of students in Western Australian schools vary widely within and across Government, Catholic and Independent school systems and urban, rural, remote and very remote areas of the State. These experiences are also shaped by the school's ethos and environment and how this is geared to address the learning and other needs of Aboriginal students, and the skills and experience of teaching staff in meeting these needs. The nature of the school environment from kindergarten to Year 12 plays a vital role in shaping students' sense of belonging and social inclusion. It is also a key influence on the development of social and emotional wellbeing, adaptive coping skills and healthy values and standards. This chapter examines the characteristics of the schools that Aboriginal children attend — the staff, students and the school environment as described by principals, school teachers and the carers of Aboriginal students.*

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#### SUMMARY

At the time of the survey, around three-quarters of schools in Western Australia had at least one Aboriginal student. The profile of these schools, in terms of staff and student numbers, differed by Level of Relative Isolation, category of school and school type.

#### Schools with Aboriginal students

- ◆ There were 750 schools in Western Australia that had at least one Aboriginal student. Almost three-quarters (72.2 per cent) were Government schools, 16.8 per cent were Catholic education schools and 11.1 per cent were Independent schools. This is a similar profile to all schools in Western Australia.
- ◆ Over half of the schools with Aboriginal students were primary schools (55.0 per cent), another 21.0 per cent were secondary schools only, while 24.0 per cent taught both primary and secondary year levels. The majority of schools in areas of high or extreme relative isolation were combined primary/secondary schools (78.7 per cent).
- ◆ Most schools with Aboriginal children were in the Perth metropolitan area (58.8 per cent), although the majority of Aboriginal school students were living outside of Perth. Less than one in ten schools in the State were in areas of high or extreme relative isolation (7.4 per cent).

#### Aboriginal school students

There were an estimated 19,600 Aboriginal students in the Western Australian school system (pre-primary to Year 12) at the time of the survey.

- ◆ The majority of these students were engaged in primary school education (Years 1 to 7) (11,700 students), with another 5,590 students in secondary schooling (Years 8 to 12) and 1,920 pre-primary students.



## SUMMARY *(continued)*

- ◆ Around one in twenty Aboriginal students were older than the expected age of students in their current enrolled year at school (1,020 students).
- ◆ Although schools with Aboriginal students were most commonly located in Perth, Aboriginal students were more likely to go to schools in areas of low or moderate relative isolation (50.1 per cent) than Perth (36.0 per cent) or areas of high or extreme relative isolation (13.9 per cent).
- ◆ Most Aboriginal students went to Government schools (85.3 per cent), 12.4 per cent attended a Catholic school, while 2.3 per cent went to an Independent school.
- ◆ Almost all four and five year-olds had been to pre-primary or kindergarten (98.3 per cent of four year-olds; 97.8 per cent of five year-olds). A smaller proportion of children at older age groups had ever attended kindergarten.

### A profile of staff in schools with Aboriginal students

- ◆ Schools with Aboriginal students had, on average, a total of 44 full-time equivalent staff. The staff numbers in secondary schools were almost three times that of primary schools.
- ◆ Aboriginal people made up 39.3 per cent of the staff in schools in areas of extreme relative isolation, 7.9 per cent in areas of moderate relative isolation, and 1.1 per cent in the Perth metropolitan area.
- ◆ Only a handful of schools reported more than 30 per cent of their teachers as being in their first year of teaching — these tended to be small and isolated schools.

### The school environment

Many aspects of the environment of a school can influence how the school, and the staff and students within it, operates. A welcoming school environment can enable Aboriginal children to engage with the process of formal schooling.

- ◆ Principals painted a positive picture of the school environment. The degree of problems associated with absenteeism, truancy, vandalism, graffiti, physical violence in the school and community, racism, poverty, and drug and alcohol abuse was generally considered to be low.
- ◆ While principals generally reported that the learning, teaching and support programmes in the school were fully adequate or close to fully adequate, this was more likely to be true in schools with a smaller proportion of students who are Aboriginal.
- ◆ Most schools (91.7 per cent) said that their ability to fulfil their educational purpose was adequate. Fewer schools in areas of high or extreme relative isolation regarded their capacity as adequate when compared with Perth (75.6 per cent and 94.3 per cent respectively).
- ◆ The primary carers of 10.8 per cent of Aboriginal children stated that they were unhappy with their access to a school bus service.



**SUMMARY** *(continued)*

- ◆ At the time of the survey, 60.0 per cent of schools with Aboriginal students had an Aboriginal Student Support and Parent Awareness Committee (ASSPA) and 38.1 per cent employed an Aboriginal and Islander Education Officer (AIEO).
- ◆ Aboriginal Studies (across the curriculum) (55.8 per cent of schools) and *Our Story* (45.5 per cent) were the most commonly implemented Aboriginal-specific education programmes in schools with Aboriginal students.

## Use of school support services

Teachers were asked whether Aboriginal students had used a range of school support services either within or outside the school in the year of the survey.

- ◆ Compared with non-Aboriginal students, Aboriginal students were more likely to receive school support services for learning difficulties (16.8 per cent compared with 2.7 per cent), emotional or behavioural disturbances (3.9 per cent compared with 1.8 per cent), and intellectual disabilities (3.0 per cent compared with 1.3 per cent). However, Aboriginal students were less likely to receive services for talented and gifted children (1.1 per cent compared with 5.5 per cent).
- ◆ There is substantial unmet need for support services — in general, the level of unmet need for support services was higher than the number of students who actually received the service.
- ◆ The demand for support services was relatively constant across areas of relative isolation, although there tended to be lower proportions accessing services in more isolated areas.





## INTRODUCTION

This chapter draws on survey findings and other data to provide an overview of the characteristics of schools which Aboriginal children in Western Australia attend. It examines the staffing and student populations and the characteristics of school environments. In addition to a description of the number of schools, staff and students, this chapter includes an analysis of aspects of student access and participation, parental involvement in education, appropriateness of school services, and the quality of education services — in particular, it presents information on the implementation of Aboriginal-specific Professional Development and curriculum activities, pastoral care arrangements of schools, student to staff ratios, levels of staff training, age participation rates, carers' views of aspects of the school environment, and the degree of school, social and community problems which may affect the school environment. The chapters that follow describe the interrelationships between the characteristics presented here and school and other life outcomes.

The *National Report to Parliament on Indigenous Education and Training 2003* notes that living in remote locations is one of the most significant disadvantages impacting education and training.<sup>1</sup> Not surprisingly, the degree to which school characteristics vary by Level of Relative Isolation (LORI) is a recurring theme throughout this chapter (see *Level of Relative Isolation* in *Glossary*). It should be noted that the use of LORI in the analysis of survey data relates to the place of residence of the student as opposed to the location of the school they attended. In almost all cases, the LORI category of the student's usual residence was the same as that of the school they attended — hence, the LORI variable is regarded as a robust and appropriate descriptor of relative isolation for the purposes of analysing school-level data.

Survey data in this chapter were derived from a number of WAACHS survey instruments. Most of the information reported here is based on principals' responses to questions about the school and school environment, and is supplemented by interview responses provided by the carers of Aboriginal students. It should be noted that the survey response rate from schools was lower than the corresponding rate in the 1993 *Western Australian Child Health Survey* (see Chapter 1 and *Appendix D — Levels of school and student participation* for a detailed discussion of schools survey issues and implications for the analysis).

## SURVEY CONTEXT

The WAACHS surveyed all schools attended by surveyed Aboriginal children where families had consented to schools being approached for information on their children. The weighted estimates of schools (and correspondingly, school students) and their characteristics are derived from these surveyed schools, and represent the number of schools in Western Australia with at least one Aboriginal student. For further information on the scope of WAACHS schools data and the weighting methodology, see Chapter 1 and Appendices.

## SCHOOLS WITH ABORIGINAL STUDENTS

There were 750 schools in Western Australia that had at least one Aboriginal student at the time of the survey. Almost three-quarters (72.2 per cent; CI: 67.0%–77.4%) of these schools were Government schools (or 540 schools; CI: 510–580). The remainder were either Catholic schools (16.8 per cent; CI: 12.3%–21.3%) or Independent schools (11.1 per cent; CI: 7.1%–15.0%) (Table 3.1).

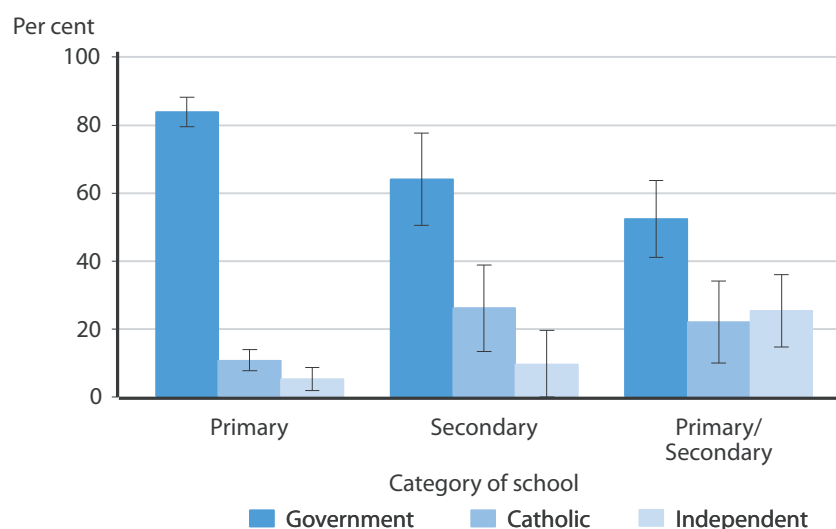


The profile of schools from the survey was similar to that of all schools in Western Australia. Department of Education and Training (DET) administrative data indicate that Government schools made up 73.1 per cent of all schools in the State in 2001. In comparison, survey estimates show that 72.2 per cent (CI: 67.0%–77.4%) of schools with Aboriginal children were Government schools (including Aboriginal community governed schools). Accordingly, there were very similar proportions of Catholic and Independent schools in Western Australia (14.9 per cent and 12.0 per cent respectively) when compared with survey results.

Over half of all Western Australian schools with Aboriginal students were primary schools (55.0 per cent; CI: 50.1%–59.9%) — this included schools that had classes for one or more of the Years from 1 to 7 inclusive. Another 21.0 per cent (CI: 16.5%–25.4%) were secondary schools only, while 24.0 per cent (CI: 19.6%–28.4%) taught both primary and secondary year levels (Table 3.2).

The distribution of Government, Catholic and Independent schools varied depending on whether the schools were responsible for primary or secondary level education. While Government schools accounted for the majority of all schools, they comprised a higher proportion of primary schools with Aboriginal children (83.8 per cent; CI: 79.5%–88.2%) than secondary schools (64.1 per cent; CI: 50.6%–77.7%) or combined primary/secondary schools (52.4 per cent; CI: 41.1%–63.7%). Independent schools accounted for about a quarter (25.4 per cent; CI: 14.8%–36.1%) of combined primary/secondary schools, while Catholic schools made up a greater proportion of secondary schools (26.2 per cent; CI: 13.4%–38.9%) (Figure 3.1).

**FIGURE 3.1: SCHOOLS WITH ABORIGINAL CHILDREN — PROPORTION THAT WERE GOVERNMENT, CATHOLIC OR INDEPENDENT, BY TYPE OF SCHOOL**



Source: Table 3.3

## NUMBER OF SCHOOLS BY LEVEL OF RELATIVE ISOLATION

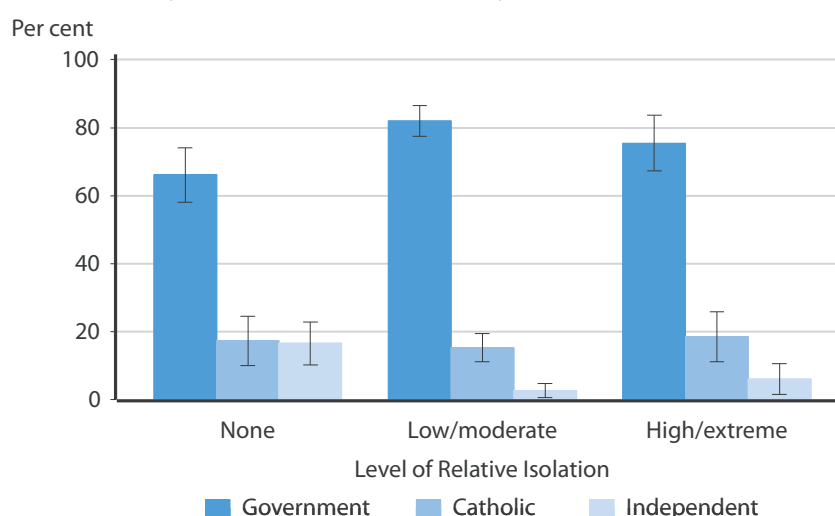
Most schools with Aboriginal children are located in the Perth metropolitan area (58.8 per cent; CI: 54.4%–63.1%), although the majority of Aboriginal school students were living outside of Perth (see section entitled *Aboriginal school students*). Very few schools in the State were in areas of high or extreme relative isolation (3.5 per cent; CI: 2.5%–4.5%, and 3.9 per cent; CI: 2.8%–4.9% respectively) (Table 3.4).



The majority of schools in Perth and areas of low or moderate relative isolation were primary schools only. In areas of high or extreme relative isolation, there were very few schools that catered for just primary or just secondary school students, with 78.7 per cent (CI: 70.8%–86.6%) regarded as being a combined primary/secondary school (Table 3.5). This is because most isolated areas do not have the population base to sustain separate primary and secondary schools. In addition, this can give rise to a greater likelihood of multiple-year classes and higher student to staff ratios.

Schools with Aboriginal children in the Perth metropolitan area were less likely to be Government schools than those in more isolated parts of the State. The reverse was true when considering Independent schools. In contrast, the proportion of Catholic education schools was similar across all levels of relative isolation (Figure 3.2).

**FIGURE 3.2: SCHOOLS WITH ABORIGINAL STUDENTS — PROPORTION THAT WERE GOVERNMENT, CATHOLIC OR INDEPENDENT, BY LEVEL OF RELATIVE ISOLATION**



Source: Table 3.6.

Almost all schools with Aboriginal students were coeducational (97.3 per cent; CI: 96.0%–98.5%).

## ABORIGINAL SCHOOL STUDENTS

This section describes the characteristics of Aboriginal children enrolled in schools in Western Australia. In addition to presenting the demographic profile of Aboriginal school students, the participation of Aboriginal students across year levels and whether they had engaged in early school environments such as kindergarten are examined. Some results have been compared with corresponding figures for the total student population (sourced from DET and Australian Bureau of Statistics (ABS) records).

### YEAR OF EDUCATION

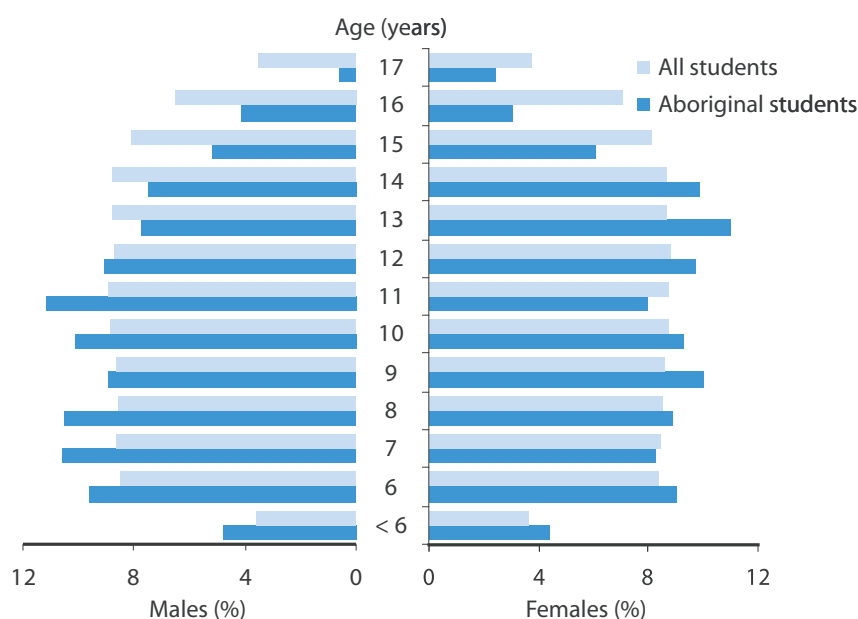
There were an estimated 19,600 Aboriginal students in the Western Australian school system (pre-primary to Year 12) at the time of the survey. There were slightly more male students (10,100 students) than females (9,500 students). The majority of Aboriginal children were engaged in primary school education (Years 1 to 7) (11,700 students, or 59.7 per cent; CI: 57.0%–62.3%), with another 5,590 students in secondary schooling (Years 8 to 12) (28.5 per cent; CI: 26.1%–31.1%) (Table 3.7).



## AGE AND SEX PROFILE

The age profile of Aboriginal school students shows that there was a similar number of students at each single year of age from 6 to 14 years. However, there were lower numbers of 15–17 year-olds in the school system, coinciding with the specified age that defines when compulsory schooling formally ends (end of the year a child turns 15 years). In comparison, ABS data highlight a more even age distribution among all students in Western Australia, corresponding with comparatively higher retention rates to Years 11 and 12 (Figure 3.3).

**FIGURE 3.3:** AGE AND SEX PROFILE OF ABORIGINAL STUDENTS AND ALL STUDENTS, WESTERN AUSTRALIA (STUDENTS AGED UNDER 18 YEARS IN PRIMARY AND SECONDARY SCHOOLING) (a) (b)



(a) Includes students in primary and secondary schooling only. Excludes pre-Year 1 students and those in an ungraded class.

(b) Data for all students relate to students in Western Australia in the 2001 school year. Excludes pre-primary school students.

Source: Table 3.8

## STUDENT AGE BY YEAR OF EDUCATION

Table 3.9 provides a summary of the number of Aboriginal students in Western Australia, by the age of the student and their year of education. The table shows the age profile of Aboriginal students within each year at school, as well as the distribution of Aboriginal students by age across years of education. As a result, it is possible to quantify the number of Aboriginal school students who are not of the age expected for the year level that they are enrolled in at school. That is, those students who could be regarded as being too old or too young for their current year at school. Students who are 'too old' may be those who have repeated a grade or started schooling late. Those who appear to be 'too young' may be restricted in their school and educational choices as a result of geographical isolation.



In Western Australia, it is compulsory for a child to be enrolled at school in the year that they turn six. Therefore, children are generally expected to be five or six years of age in Year 1. It follows that they should be either six or seven years of age in Year 2 and so on, so that Year 12 students can be expected to be 16 or 17 years of age. Aboriginal students who fall outside of these parameters are regarded as being either ‘too young’ or ‘too old’ for the purposes of the following analysis.

Around one in every twenty Aboriginal students were regarded as being ‘too old’ for their current enrolled year at school (1,020 students; CI: 810–1,270, or 5.2 per cent; CI: 4.1%–6.5%). About half this number were ‘too young’ for their year (480 students; CI: 330–690, or 2.5 per cent; CI: 1.7%–3.5%) (Table 3.10).

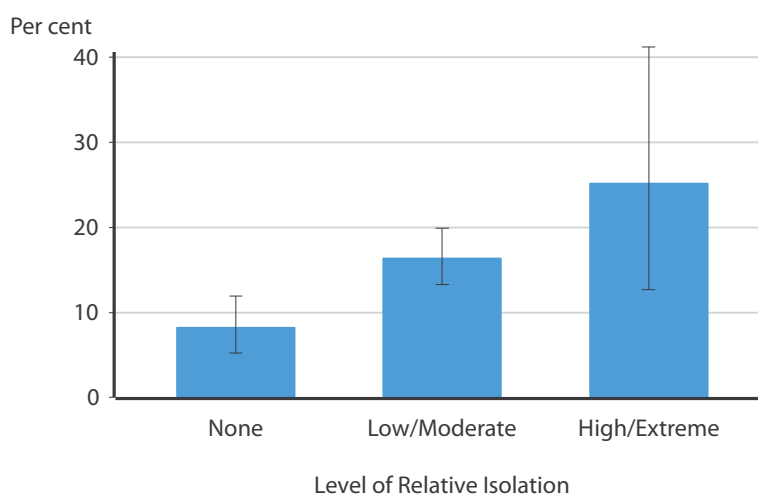
### CHARACTERISTICS OF THE SCHOOLS THAT ABORIGINAL STUDENTS ATTEND

More than half of Aboriginal students were in schools catering for primary year levels only (52.6 per cent; CI: 49.4%–55.8%), with 18.4 per cent (CI: 16.2%–20.7%) in schools for secondary students only and the remainder in combined primary and secondary schools (29.1 per cent; CI: 25.7%–32.6%) (Table 3.11).

Although schools with Aboriginal students were most commonly located in the Perth metropolitan area, Aboriginal students were still more likely to go to schools in areas of low or moderate relative isolation (50.1 per cent; CI: 46.6%–53.8%) than Perth (36.0 per cent; CI: 33.2%–38.8%) or areas of high or extreme relative isolation (13.9 per cent; CI: 10.6%–17.9%) (Table 3.11). This is because of the higher concentration of Aboriginal students in schools in more isolated parts of the State.

Most Aboriginal students went to Government schools (85.3 per cent; CI: 82.5%–87.9%), regardless of the location of the student. However, there was a greater proportion of Aboriginal students in Catholic or Independent schools in areas of high or extreme relative isolation (25.2 per cent; CI: 12.7%–41.2%) when compared with Perth (8.2 per cent; CI: 5.2%–11.9%) and low or moderate areas of relative isolation (16.4 per cent; CI: 13.3%–19.9%) (Figure 3.4).

**FIGURE 3.4:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION IN CATHOLIC OR INDEPENDENT SCHOOLS, BY LEVEL OF RELATIVE ISOLATION



Source: Table 3.12



## STUDENTS WHO HAD BEEN TO KINDERGARTEN

The learning behaviours and experiences of children prior to entering the formal (compulsory) educational setting is an extremely important element of development in the early years of life. Not only do pre-school settings help to build a sense of self, positively impact on the development of physical and behavioural skills and develop language and communication skills, they can expose children to professionals who can help with learning and behavioural difficulties.

Attending a pre-school programme or kindergarten is not compulsory in Western Australia. That said, at the time of the survey, most 4–11 year-old Aboriginal students had been to pre-school or kindergarten at some stage in their life. However, the proportion decreased at older ages — this may reflect an improvement in participation in pre-school and kindergarten over time, or relate to the inability of some carers to recall the early years educational experiences of children.

Almost all four and five year-olds had been to pre-school or kindergarten (98.3 per cent; CI: 96.4%–99.3% and 97.8 per cent; CI: 89.6%–100.0%, respectively). A smaller proportion of eleven year-olds had ever attended pre-school or kindergarten (85.6 per cent; CI: 79.6%–90.0%) (Table 3.13).

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## A PROFILE OF STAFF IN SCHOOLS WITH ABORIGINAL STUDENTS

This section deals with the characteristics of staff in schools attended by Aboriginal students. It describes the size and structure of school staff populations, the distribution of persons employed in schools, newly appointed and qualified staff, and student to staff ratios. This information is designed to provide context to the analysis of schools and school-related characteristics in subsequent chapters.

### SIZE, STRUCTURE AND DISTRIBUTION

Schools with Aboriginal students vary in size and type, from small community-based schools with only a few staff to large metropolitan schools with a few hundred staff supporting teaching across the spectrum of primary and secondary year levels. Most schools have a staff size of less than 50 persons, with 14.2 per cent (CI: 11.6%–16.8%) of schools employing less than 20 staff in total (teaching, non-teaching and support staff). One-third of schools had 50 or more staff (33.3 per cent; CI: 28.5%–38.1%) (Table 3.14).

Schools in Western Australia with Aboriginal students had, on average, the full-time equivalent (FTE) of 44 (CI: 39–48) staff in total (Table 3.15). The staff numbers in secondary schools were almost three times that of primary schools — an average of 75 FTE staff (CI: 69–80) compared with 26 FTE staff (CI: 24–28) respectively. Combined primary/secondary schools had an average of 57 FTE staff (CI: 48–66) (Table 3.16).

The majority of FTE staff was teaching staff (average of 31 staff; CI: 27–34). The remainder of school staff were either working in a non-teaching capacity (11 staff on average; CI: 10–13) or were support staff (2 staff on average; CI: 1–2). Teaching staff make up a greater proportion of the total staff of secondary schools (76.9 per cent; CI: 74.2%–79.6%) than primary schools (66.6 per cent; CI: 65.7%–67.6%) or combined primary/secondary schools (66.0 per cent; CI: 62.4%–69.7%).



### PROPORTION OF STAFF WHO ARE ABORIGINAL

Almost all staff (teaching, non-teaching and support staff) in schools with Aboriginal students were non-Aboriginal. On average, there was 1.3 FTE Aboriginal staff (CI: 1.1–1.5) on the staff of these schools (Table 3.16).

Most schools in the State with Aboriginal students had only a small proportion of Aboriginal staff — 85.0 per cent (CI: 82.6%–87.3%) of these schools identified less than 10 per cent of their total staff as being Aboriginal, and 52.4 per cent (CI: 47.8%–57.1%) of these schools had no Aboriginal staff (Figure 3.5). The number of Aboriginal staff in each school was reported by the school principal — as a result, these numbers may be different to the numbers derived by self-identification.

**FIGURE 3.5:** DISTRIBUTION OF SCHOOLS WITH ABORIGINAL STUDENTS, BY PROPORTION OF ALL SCHOOL STAFF WHO ARE ABORIGINAL (FULL-TIME EQUIVALENT)



Aboriginal people comprised 3.4 per cent (CI: 2.8%–4.0%) of all people working in schools with Aboriginal children in Western Australia. When considering FTE staff, they accounted for a slightly lower proportion (2.9 per cent; CI: 2.4%–3.5%) (Table 3.17).

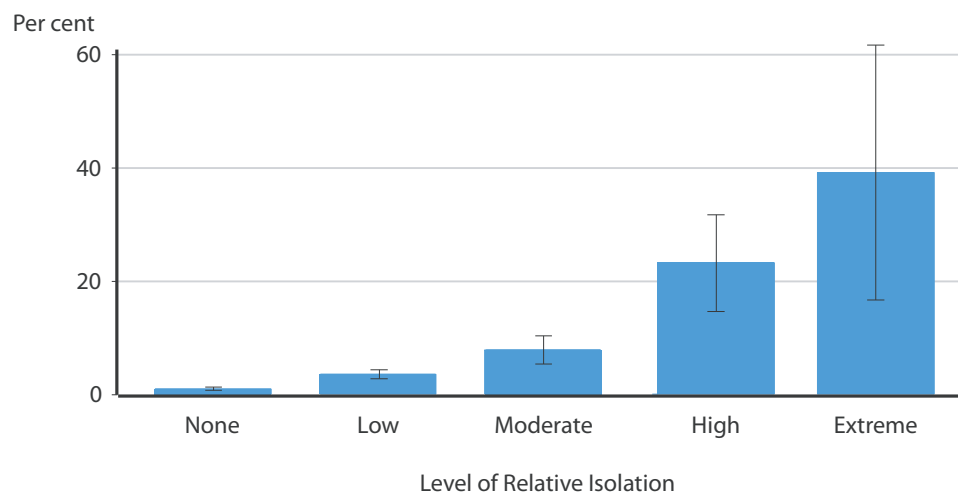
Aboriginal people made up a lower proportion of the total number of secondary school FTE staff (1.1 per cent; CI: 0.8%–1.5%) when compared with primary schools (3.9 per cent; CI: 3.2%–4.6%) and combined primary secondary schools (4.0 per cent; CI: 2.4%–5.5%). They were also more likely to be employed in Government schools (4.1 per cent; CI: 3.4%–4.8%) than both Catholic schools (1.6 per cent; CI: 0.7%–2.5%) and Independent schools (0.7 per cent; CI: 0.1%–1.4%) (Table 3.17).

In terms of FTE staff numbers, there was a considerably higher proportion of Aboriginal staff in schools located in areas of high or extreme relative isolation when compared with other schools. The proportions ranged from 39.3 per cent (CI: 16.8%–61.8%) in areas of extreme relative isolation to 7.9 per cent (CI: 5.4%–10.4%) in areas of moderate relative isolation and 1.1 per cent (CI: 0.8%–1.4%) in areas of no relative isolation (Figure 3.6).

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**FIGURE 3.6:** ALL SCHOOL STAFF (FULL-TIME EQUIVALENT) — PROPORTION WHO ARE ABORIGINAL (a), BY LEVEL OF RELATIVE ISOLATION



(a) Proportions are based on the sum of Aboriginal staff within a specified category (e.g. areas of extreme relative isolation) divided by the sum of all staff in that category.

Source: Table 3.18

There was a lower proportion of teachers who were Aboriginal (0.7 per cent of all teachers; CI: 0.5%–1.0%) than among non-teaching staff. There was a total of only 80 (CI: 64–100) Aboriginal teachers across all areas with a level of relative isolation of none, low or moderate (representing 0.4 per cent of all teachers in these areas; CI: 0.3%–0.5%) whereas in areas of high or extreme relative isolation 14.8 per cent (CI: 6.2%–23.4%) of teachers were Aboriginal (Table 3.19).

## NEWLY QUALIFIED STAFF AND STAFF NEW TO THE SCHOOL

New staff to a school can have particular needs depending on whether they are transferring from another school (which may, for example, involve moving house), returning to work after a period of absence, or new to the school system (e.g. newly qualified teachers). Research suggests that staff that are new to a school require a greater level of support than others. New staff entering schools without sound induction processes and care arrangements may have some difficulty coping with the demands of their job.<sup>2</sup> This may impact on the quality of education delivered to students.

DET records indicate that about three-quarters of school teachers continue from one year to the next at the same school.<sup>3</sup> Traditionally, schools in more isolated areas tend to experience higher levels of staff turnover than those in more urbanised areas. In addition, when staff leave remote schools, it may be difficult to replace them depending on the time of year. Conditions within and surrounding these schools, such as poverty in the community and the physical condition of schools, add to the difficulties in finding staff. Finding appropriate teaching staff, in particular, is also hampered by the extra challenges in the classroom, which demand highly skilled and experienced professionals. Financial incentives and improved conditions are mechanisms used to attract a greater number of quality teachers and administrators to schools that are difficult to staff. In the Government system, teachers and administrators in schools deemed part of the Country and Metropolitan Teaching Programs and Remote Teaching Service (RTS) are eligible for a range of incentives, including greater leave provisions and priority in future school transfers.<sup>4</sup> These have attracted more





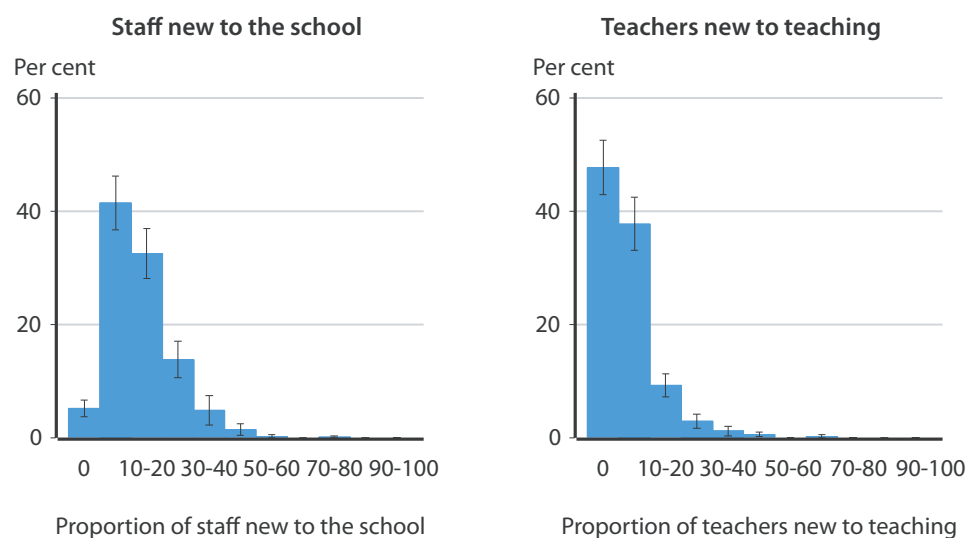
experienced staff to remote schools in recent years and lowered the proportion of graduate teachers.<sup>2</sup>

The following section provides a description of schools with new staff and newly qualified teaching staff. It does not explore indicators of school support for schools with new staff, nor does it examine whether schools with many new staff are producing less positive outcomes than other schools in regard to student development. These issues are discussed in later chapters.

Figure 3.7 shows that schools with Aboriginal children most commonly had around 10 per cent of their staff new to the school in the current year. Less than one in ten schools had no new staff at the school in the current year.

For almost all schools, the proportion of teaching staff new to teaching was very small. Close to half of schools with Aboriginal children (47.8 per cent; CI: 43.0%–52.6%) had no teachers in their first year of teaching, while only a handful of schools reported more than 30 per cent of their teachers as being in their first year of teaching — these tended to be small and isolated schools. In comparison, the 1993 *Western Australian Child Health Survey* found a generally greater level of first year teachers across all schools in the State — only 5.0 per cent (CI: 2.9%–7.2%) of all schools had no new teaching staff, another 18.1 per cent (CI: 14.3%–21.9%) had less than or equal to 10 per cent of teachers new to teaching, while 17.9 per cent (CI: 14.1%–21.7%) reported that over 30 per cent of their teaching staff were new to teaching in the year the survey was conducted.

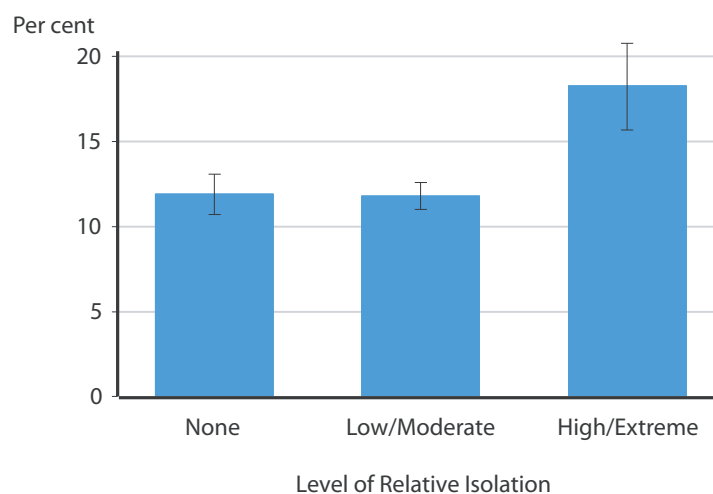
**FIGURE 3.7: SCHOOLS WITH ABORIGINAL CHILDREN — DISTRIBUTION OF THE PROPORTION OF STAFF NEW TO THE SCHOOL AND THE PROPORTION OF TEACHERS NEW TO TEACHING (IN THE YEAR OF THE SURVEY)**



At the time of the survey, one in eight staff members in schools with Aboriginal students were in their first year at the school (12.1 per cent; CI: 11.2%–13.0%). Of these, 18.7 per cent (CI: 16.0%–21.3%) were teachers in their first year of teaching.

The proportion of school staff in Western Australia who were new to their school in the current year did not vary appreciably by the type or category of school. However, the proportion of school staff new to the school was higher in areas of high or extreme relative isolation (18.3 per cent; CI: 15.7%–20.8%) when compared with areas of low or moderate isolation (11.8 per cent; CI: 11.0%–12.6%) and no relative isolation (11.9 per cent; CI: 10.7%–13.1%) (Figure 3.8).



**FIGURE 3.8:** ALL SCHOOL STAFF — PROPORTION WHO WERE NEW TO THE SCHOOL, BY LEVEL OF RELATIVE ISOLATION

### STUDENT TO STAFF AND STUDENT TO TEACHER RATIOS

Student to staff ratios are a simple measure of the number of students divided by the number of staff. These calculations can be applied to full-time or all students, teachers or all staff, FTE or raw staff numbers, etc. In addition, student to staff ratios can be calculated for single schools or an aggregate of schools (across areas, school types or categories of school, etc.). As a general rule, student to staff ratios provide an indication of the relative load on teachers or staff within a specified set of schools. They tend to be a reflection of a number of broader factors, particularly the 'outcomes of decisions made by education authorities in regards to curricula, learning outcomes, and the allocation of resources',<sup>3</sup> and policies regarding class size. More directly, they fluctuate in response to changes in: the school aged population, age participation rates, Year 12 retention rates, school location, the level of government and private funding for schools, and teacher and ancillary costs.<sup>3</sup> In turn, student to staff ratios are a key determinant of the future demand for teachers.

Data published by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) indicate that, in Western Australia, student to teacher ratios are higher in primary schools than secondary schools, although ratios in both have decreased steadily over the last two decades.<sup>5</sup> This is consistent with DET initiatives in recent years to reduce class sizes in Government schools in Western Australia. Current DET guidelines state that schools should plan for class sizes of 24 students for Years 1–3, 32 students for Years 4–10, and 25 students for Years 11–12.<sup>4</sup>

The data provided in Table 3.20 incorporate ratios of all students to all staff (teachers, non-teaching staff and support staff) and Aboriginal students to Aboriginal staff. At most levels of aggregation, Aboriginal student to staff ratios were much higher than overall student to staff ratios. This may have implications for Aboriginal students in terms of the availability of Aboriginal role models, quality of teaching, and exposure to Aboriginal-specific learning and cultural awareness.

Consistent with other sources of data, student to staff ratios derived from the survey were higher in Western Australian primary schools with Aboriginal students (ratio of 11.5 students to every staff member; CI: 11.1–12.0) when compared with secondary schools (ratio of 9.0; CI: 8.1–9.9). There was no discernible difference in student to staff ratios in Government, Catholic and Independent schools.



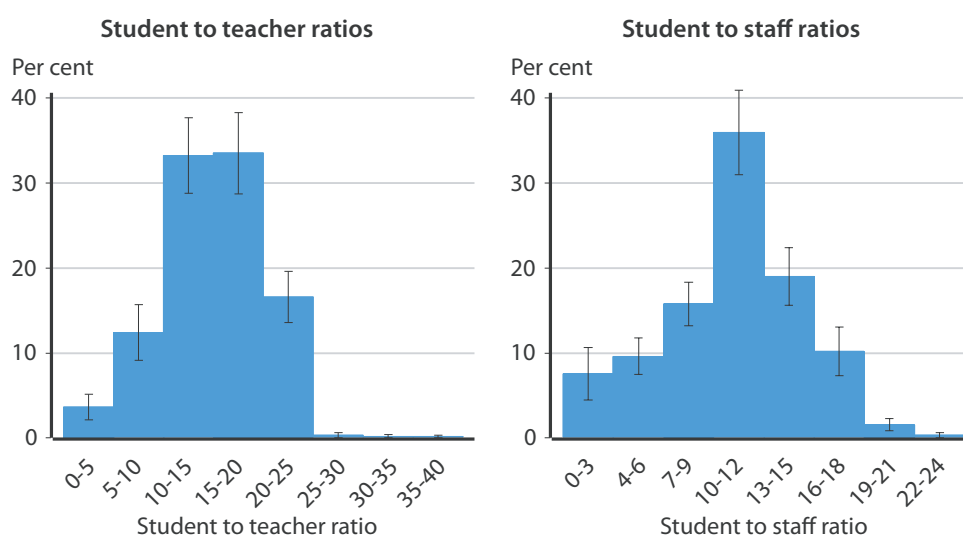
Student to staff ratios were lower in the more isolated parts of the State. Schools in areas of no or low relative isolation had, on average, 10.7 (CI: 10.2–11.1) students per staff member, while the ratio dropped to 8.4 (CI: 7.6–9.1) in areas of moderate relative isolation, and to 6.5 (CI: 6.0–7.0) in areas of high or extreme relative isolation.

In addition to comparisons of student to total staff numbers, student to teacher ratios can be also be derived (Table 3.21). Across all schools with Aboriginal children, there were, on average, 15.0 (CI: 14.5–15.5) students to every teacher. While the ratio was higher in primary schools (17.2; CI: 16.7–17.8) than secondary schools (11.8; CI: 10.9–12.8), there was a more marked difference in the student to teacher ratio between school types when compared with the corresponding student to staff ratios.

At all levels of aggregation, the ratio of Aboriginal students to Aboriginal teachers was higher than overall student to teacher ratios. In contrast to Aboriginal student to staff ratios, the Aboriginal student to teacher ratio was higher in areas of moderate and high or extreme isolation than areas with no or low isolation (Table 3.21).

Across all schools with Aboriginal students, student to teacher ratios were a few points higher than the corresponding ratios of students to all staff. Figure 3.9 shows that the modal student to staff ratio was around 11 to 1 — this compares with around 13.5 students per teacher. Student to teacher ratios reached as high as 37 in some schools.

**FIGURE 3.9: SCHOOLS WITH ABORIGINAL CHILDREN — DISTRIBUTION OF STUDENT TO TEACHER RATIOS AND STUDENT TO STAFF RATIOS (a)**



(a) Student to teacher ratios and student to staff ratios are derived using staff numbers based on full-time equivalent (FTE) values.

## THE SCHOOL ENVIRONMENT

Many aspects of the environment of a school can influence how the school, and the staff and students within it, operates. Consequently, environmental factors can impact on the developmental, social, emotional and physical health of students. A welcoming and inclusive school environment is regarded as a particularly important factor for Aboriginal students, as it helps to enable children and their families to engage with the process of formal schooling. School engagement is especially important in the early years of schooling, and can determine the educational outcomes later in the school cycle.<sup>6</sup>



The school environment includes such things as the adequacy of relevant and culturally appropriate curriculum and Professional Development activities, the pastoral care arrangements of the school, the nature and frequency of problems occurring in the school, and the effectiveness of staff and student support mechanisms, among others. In addition, many aspects of the wider community environment can impact on schools, directly or indirectly, by affecting the students who attend the school. The degree of community violence, poverty, racism, and drug and alcohol abuse are some of the risk factors to student and school wellbeing.

### SCHOOL, SOCIAL AND COMMUNITY PROBLEMS WHICH MAY AFFECT THE SCHOOL ENVIRONMENT

A series of questions were asked of school principals to determine the degree to which specific school, social and community problems may affect the school environment. Principals were asked to rate, on a seven-point scale ranging from 'none' to 'extreme', the degree of problems related to:

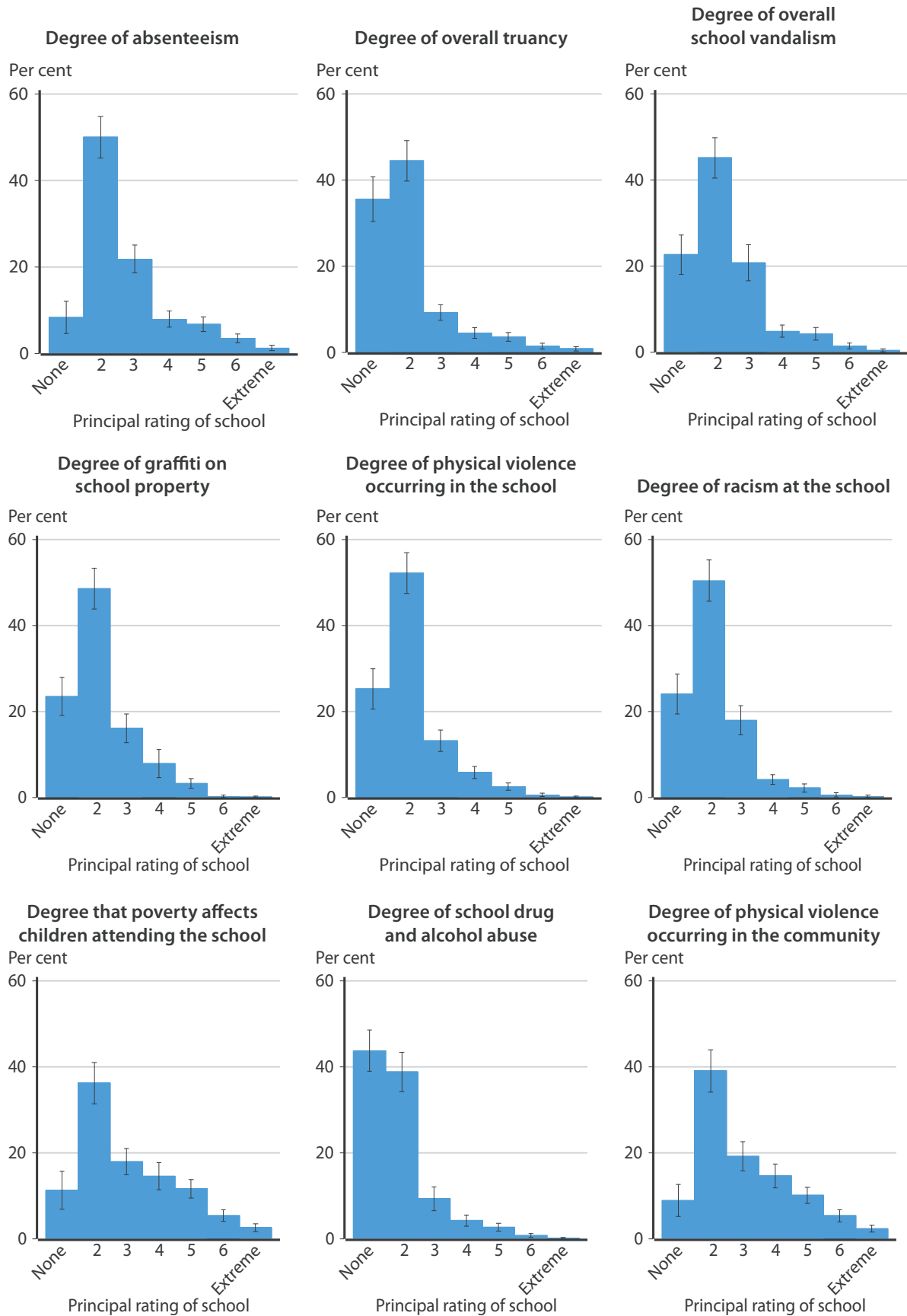
- ◆ absenteeism in the school
- ◆ truancy
- ◆ school vandalism
- ◆ graffiti on school property
- ◆ physical violence in the school
- ◆ racism in the school
- ◆ poverty affecting students
- ◆ drug and alcohol abuse
- ◆ physical violence occurring in the community.

Collectively, principals painted a positive picture of the environment of schools with Aboriginal students. The distribution of responses for each school, social and community problem highlight a tendency for principals to answer at the low end of the seven-point scale. Apart from problems with poverty affecting students and physical violence occurring in the community, more than half of all school principals rated the degree of each problem in the lowest two categories on the seven-point scale (Figure 3.10).

Alternatively put, the median response was '2' for all school environment problems, with the exception of poverty affecting students and physical violence occurring in the community, which principals regarded as being a slightly bigger problem (median rating of '3').



**FIGURE 3.10: SCHOOLS WITH ABORIGINAL CHILDREN — DISTRIBUTION OF PRINCIPALS' RESPONSES TO ASPECTS OF SCHOOL, SOCIAL AND COMMUNITY PROBLEMS AFFECTING THE SCHOOL ENVIRONMENT**



Source: Table C.1 in Appendix C



Table 3.22 compares the responses to the set of questions on school environmental problems among schools with different proportions of Aboriginal students in the student population. Responses to questions that were in the top three points of the seven-point scale were defined as a 'high level' of problems. To compare schools, a value for the proportion of students who are Aboriginal has been calculated for each school, with schools categorised into one of three groups — schools with an Aboriginal student population that comprised less than 1 per cent of the total student population; those with a proportion of at least 1 per cent and less than 10 per cent; and those with an Aboriginal student population of 10 per cent or more.

Most of the nine questions relating to school environmental problems appeared to be associated with the proportion of students in the school who are Aboriginal. In particular, the proportion of schools with a high level of problems was greater in schools with 10 per cent or more Aboriginal students (than those with less than 1 per cent Aboriginal students) when examining problems with absenteeism, truancy, poverty among students and violence in the community. These results were, not surprisingly, mirrored by the association with relative isolation.

### LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ABORIGINAL STUDENTS

Principals were asked a series of questions to establish their views on the adequacy of learning, teaching and support programmes in the school. A separate set of questions was asked for the arrangements as they pertained to all students and Aboriginal students. The questions centred around the adequacy of:

- ◆ the school's learning and teaching programmes
- ◆ behaviour management programmes
- ◆ arrangements for students at risk
- ◆ carer involvement in their child's learning
- ◆ pastoral care for students
- ◆ support for carers
- ◆ teacher support
- ◆ staff morale.

Principals generally reported that the learning, teaching and support programmes in the school were fully adequate or close to fully adequate (using a seven-point scale to describe adequacy, ranging from 'inadequate' to 'fully adequate'). That said, they had a more positive outlook on the school's arrangements for the total population of students than those for Aboriginal students specifically. The lowest median rating by principal's was in relation to the adequacy of Aboriginal carers' involvement in school activities and their children's learning (median response of four on the seven-point scale).

For the purposes of comparison between different schools and population groups, the responses to the set of questions on learning, teaching and support programmes in schools were considered collectively, to create an overall value for each school. Schools were then sorted into quartile groups based on the overall adequacy of arrangements (see *Appendix C* for details on how this measure was derived). Aboriginal school students were over-represented in the lowest two quartiles of adequacy of school learning, teaching and support programmes, i.e. they were more often in schools that had poorer ratings of the adequacy of these programs. This was true when considering



the learning, teaching and support programmes in place for Aboriginal students (61.4 per cent in the lowest two quartiles; CI: 57.7%–65.1%) and those that apply to all students (66.6 per cent; CI: 62.8%–70.1%) (Table 3.23).

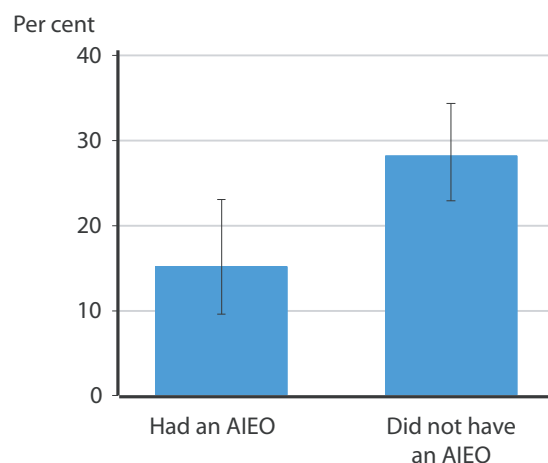
Although there was no significant difference in the adequacy of learning, teaching and support programmes for Aboriginal students between Government and Catholic/Independent schools, the latter were more likely to be rated in the highest quartile of adequacy of learning, teaching and support programmes for all students (Table 3.24).

The adequacy of learning, teaching and support programmes for all students and Aboriginal students was not significantly different by school size. Although the estimates were small, there was no discernable pattern in the data.

It is apparent from the data that most of the schools that excel in providing learning, teaching and support programmes for Aboriginal students also excel in catering for all students. However, there is also a fair proportion of schools which do one well and the other moderately or poorly. Some of these schools have either a very high or very low proportion of Aboriginal students and therefore would be expected to be gearing their efforts predominantly toward a specific population group, i.e. Aboriginal students or non-Aboriginal students.

The adequacy of learning, teaching and support programmes for Aboriginal students did not appear to be associated with the number or proportion of staff in the school who are Aboriginal or the existence of an Aboriginal Student Support and Parent Awareness Committee (ASSPA). However, in schools where there was an Aboriginal and Islander Education Officer (AIEO) a smaller proportion were rated in the highest quartile of adequacy of learning, teaching and support programmes (15.2 per cent; CI: 11.7%–18.7%) than in schools with no AIEO (28.2 per cent; CI: 21.6%–34.9%) (Figure 3.11).

**FIGURE 3.11: SCHOOLS WITH ABORIGINAL CHILDREN — PROPORTION IN THE HIGHEST QUARTILE OF SCHOOL PRINCIPAL'S ASSESSMENT OF LEARNING, TEACHING AND SUPPORT PROGRAMMES, BY WHETHER THE SCHOOL HAD AN ABORIGINAL AND ISLANDER EDUCATION OFFICER (AIEO)**



In schools where the proportion of students who are Aboriginal was greater than 10 per cent, the proportion in the highest quartile of adequacy of learning, teaching and support programmes was lower (14.1 per cent; CI: 10.3%–17.8%) than in schools where Aboriginal students comprised less than 1 per cent of the student population (29.1 per cent; CI: 17.6%–40.6%).

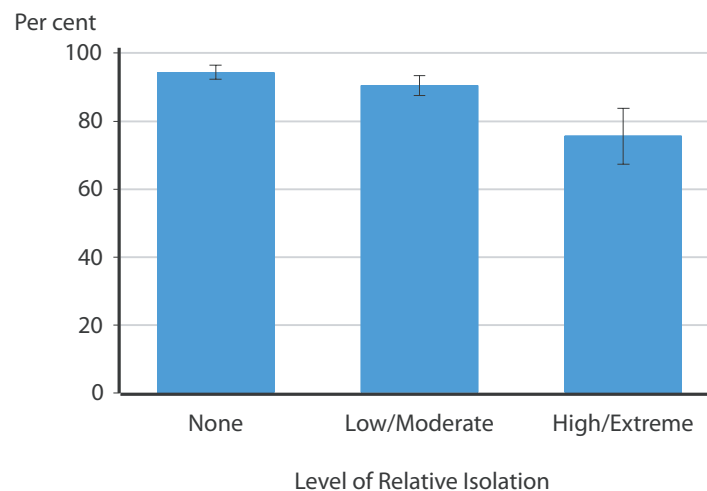


## CAPACITY TO FULFIL EDUCATIONAL MISSION

As discussed earlier in this section, there are many school and community issues and factors that affect the capacity that a school has to accomplish its educational purpose. In addition to questions regarding some of the specific school problems and determinants of school functioning, the survey also asked principals to provide a global rating of the school's capacity to fulfil its educational mission. Principals rated their school on a seven-point scale, ranging from 'inadequate' to 'fully adequate'. Where a school was rated in the top three points of the scale, they were considered to have an 'adequate' capacity to fulfil their mission.

Most schools (91.7 per cent; CI: 89.9%–93.4%) stated that their ability to fulfil their educational purpose was adequate. While the proportion was estimated to be higher in secondary schools than primary schools, in private schools than Government schools, and in less isolated areas of Western Australia, the only significant associations were between 'adequacy' and LORI. In the Perth metropolitan area, almost all schools (94.3 per cent; CI: 92.3%–96.4%) regarded their capacity to fulfil their educational purpose as adequate, whereas the same was true of 90.5 per cent (CI: 87.6%–93.4%) of schools in areas of low or moderate relative isolation and 75.6 per cent (CI: 67.5%–83.8%) of schools in areas of high or extreme relative isolation (Figure 3.12).

**FIGURE 3.12: SCHOOLS WITH ABORIGINAL CHILDREN — PROPORTION WITH AN ADEQUATE CAPACITY TO FULFIL THEIR EDUCATIONAL PURPOSE (a), BY LEVEL OF RELATIVE ISOLATION**



(a) 'Adequate' is defined as the top three points on a seven-point scale ranging from '1 – inadequate' to '7 – fully adequate'.

Of all Aboriginal students in Western Australia, 85.9 per cent (CI: 83.0%–88.4%) were in schools rated as having an adequate capacity to fulfil its educational mission.





### THE SOCIOECONOMIC STATUS OF SCHOOLS

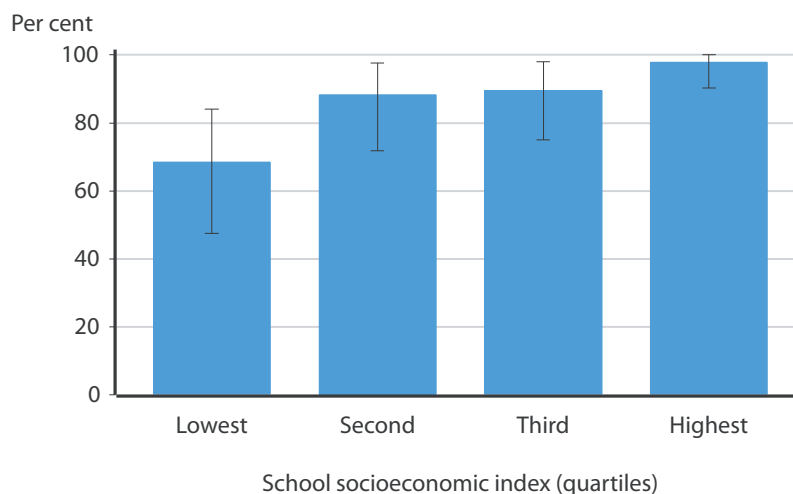
DET has derived a measure of the level of socioeconomic disadvantage for the areas surrounding Government schools in the State. This measure is referred to as the Socioeconomic Index for Schools (SEI) and can be used to assess the welfare of Government school communities. For details on how the SEI is constructed see the *Glossary*.

Almost half (48.1 per cent; CI: 40.8%–55.2%) of Government schools with Aboriginal students were in the highest quartile of SEI scores, i.e. situated in areas with the least socioeconomic disadvantage, whereas only 12.6 per cent (CI: 8.7%–17.0%) were in the lowest quartile.

There was an association between the level of community socioeconomic disadvantage and the school’s ability to fulfil its educational purpose. A larger proportion of schools in the highest quartile of SEI scores regarded their capacity to fulfil their educational purpose as adequate (97.8 per cent; CI: 90.3%–100.0%) than schools with a higher level of community socioeconomic disadvantage (68.5 per cent of those in the lowest SEI quartile; CI: 47.6%–84.1%) (Figure 3.13).

While SEI scores are not available for Catholic and Independent schools, it is widely accepted that the socioeconomic status of these schools is quite different to that of schools in the Government system.<sup>7</sup>

**FIGURE 3.13: GOVERNMENT SCHOOLS WITH ABORIGINAL CHILDREN — PROPORTION WITH AN ADEQUATE CAPACITY TO FULFIL THEIR EDUCATIONAL PURPOSE (a), BY SCHOOL SOCIOECONOMIC INDEX (SEI)**



(a) ‘Adequate’ is defined as the top three points on a seven-point scale ranging from ‘1 – inadequate’ to ‘7 – fully adequate’.

Source: Table 3.25



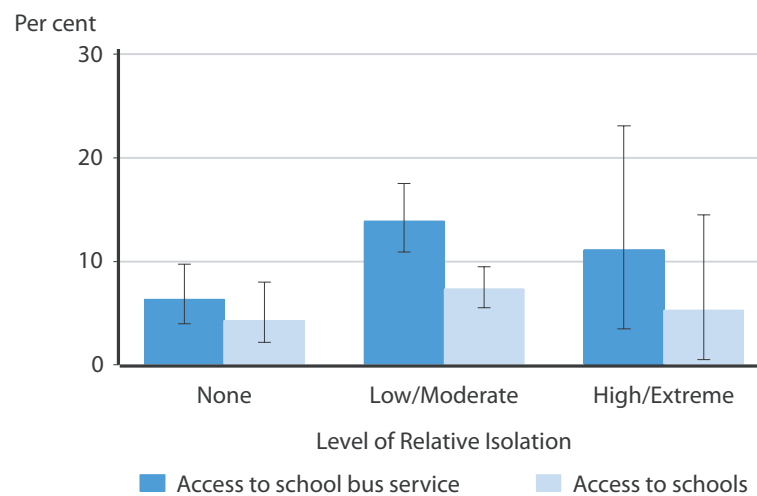
## CARERS' PERSPECTIVE ON ACCESS TO SCHOOL ISSUES

Carers were asked whether they were satisfied with their access to a range of services and facilities. This included satisfaction with access to schools and school bus services. The primary carers of 10.8 per cent (CI: 8.6%–13.2%) of Aboriginal students were unhappy with their access to a school bus service (Table 3.26). There was some difference in satisfaction with access to school bus service, with more carers in areas of low or moderate relative isolation unhappy with access (13.9 per cent; CI: 10.9%–17.5%) when compared with carers in the Perth metropolitan area (6.3 per cent; CI: 4.0%–9.7%). While the estimated proportion was higher in areas of high or extreme relative isolation (11.1 per cent; CI: 3.5%–23.1%) than Perth, the difference was not statistically significant.

Some of the carers of children who were not living in remote communities, and who indicated they were unhappy with school bus services, stated that they were happy with their access to public transport systems. This may provide some children with regular and reliable transport to school where there is not an adequate school bus service.

The vast majority of primary carers of students were happy with their access to schools. Only 5.9 per cent (CI: 4.4%–7.7%) of Aboriginal students had a primary carer who was unhappy with access to schools (Figure 3.14). This was similar to the proportion reported for all students from the 1993 *Western Australian Child Health Survey* (3.1 per cent; CI: 2.0%–4.5%).

**FIGURE 3.14:** STUDENTS AGED 4–17 YEARS — PROPORTION OF CARERS UNHAPPY WITH ACCESS TO SCHOOLS AND SCHOOL BUS SERVICE, BY LEVEL OF RELATIVE ISOLATION



Source: Table 3.27



## IMPLEMENTATION OF PROFESSIONAL DEVELOPMENT AND CURRICULUM ACTIVITIES

## REPORTING ON ABORIGINAL-SPECIFIC PROGRAMMES IN THE SCHOOL

The survey asked principals if specific Professional Development and curriculum activities geared toward improving the educational outcomes of Aboriginal students had ever been implemented in the school. The survey targeted eight specific programmes that were pertinent at the time the survey was being developed (after consultation with experts in the field of Aboriginal education). It should be noted that some programme priorities have changed since this time — in particular, *Follow the Dream* (which began in 2004 and is now the major Aboriginal-specific programme currently run by the DET. It is an aspirations-based programme that aims to improve the number of Aboriginal students entering into university studies), *Walk Right In* (parent participation programme), the *Aboriginal Literacy Strategy*, *Racism No Way* and *Happy Kids* (resilience programme).

The survey asked about the following Professional Development and curriculum activities:

- ◆ *Our Story* – has provided Aboriginal Cultural Awareness Training for the education sector over the last decade. The programme includes seven modules, which can be delivered in two days using role plays, videos, course work, etc., and is compulsory for all DET staff. The topics are designed to help teach Aboriginal children and describe what it is like to be an Aboriginal person. This program, like most Professional Development activities, is delivered by Aboriginal Education Teams in each district.
- ◆ *ABC of Two Way Literacy and Learning* and *Deadly Ways to Learn* – these programmes are part of the ABC strategy and have been developed jointly by the DET and Edith Cowan University. The programme focuses on building the capacity of schools to deliver positive literacy and numeracy outcomes for Aboriginal students. ABC refers to: Accepting Aboriginal English, Bridging to Standard English, and Cultivating Aboriginal ways.
- ◆ *FELIKS* – is an Aboriginal English Language programme developed by the Catholic Education Office for use in Kimberley schools. *FELIKS* is similar to government-developed programmes such as *ABC of Two Way Literacy and Learning* and *Deadly Ways to Learn*.
- ◆ *Time for Talk* – is a teacher resource kit containing materials that can be used to screen children for difficulties with Standard Australian English and provides classroom activities that can be used in lessons. The programme is aimed at children in the kindergarten to Year 3 range, and while it was specifically developed for students who speak Aboriginal English, it builds on Languages Other Than English (LOTE) theory and can also aid other students who have difficulties with English.
- ◆ *Aboriginal Studies* (across the curriculum) – is a resource kit that was distributed to all schools in Western Australia in 2000. It provides guidance to teachers on how to incorporate the perspectives of Aboriginal people in all learning areas.

*Continued . . .*



**REPORTING ON ABORIGINAL-SPECIFIC PROGRAMMES IN THE SCHOOL** *(continued)*

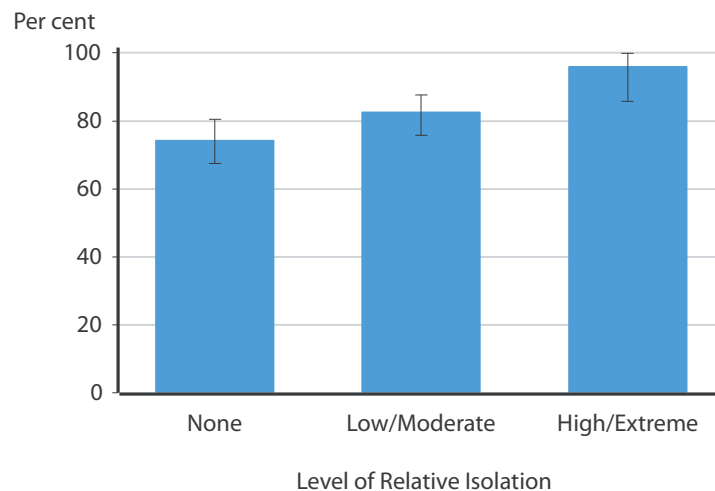
- ◆ Aboriginal Studies (discrete unit or course).
- ◆ *Do You Hear What I Hear* (Otitis Media) – is an optional programme geared toward teachers and encompasses a workshop and package of materials for teachers to use in the classroom. These materials are aimed at developing an understanding of conductive hearing loss and how it affects children, providing strategies to address the needs of children with conductive hearing loss, providing tools to identify children with conductive hearing loss, and providing aids for developing lesson plans.
- ◆ other Professional Development on developing culturally inclusive curricula.

Some of the Professional Development and curriculum activities that were asked about in the survey had been implemented by only a small or localised set of schools. For instance, *FELIKS* – 5.5 per cent (CI: 4.3%–6.8%), and *Time for Talk* – 9.0 per cent (CI: 7.0%–10.9%) while others, including Aboriginal Studies (across the curriculum) (55.8 per cent of schools; CI: 51.0%–60.6%) and *Our Story* (45.5 per cent; CI: 40.9%–50.1%) were relatively common in schools with Aboriginal students. Further, an estimated 44.8 per cent (CI: 39.9%–49.6%) of schools had implemented culturally inclusive Professional Development activities other than those listed above (Table 3.28).

The implementation of the *FELIKS* programme was confined to essentially those schools in the Broome, Derby and Kununurra regions — 87.1 per cent (CI: 78.0%–96.3%) of schools in these regions had implemented *FELIKS* at some point.

Most schools with Aboriginal students had implemented at least one of the programmes listed above (78.7 per cent; CI: 74.7%–82.6%). This was more likely to be the case in schools located in the more isolated parts of the State (96.0 per cent of schools in areas of high or extreme relative isolation; CI: 92.2%–99.7%) when compared with schools in Perth (74.3 per cent; CI: 68.2%–80.4%) (Figure 3.15).

**FIGURE 3.15:** SCHOOLS WITH ABORIGINAL STUDENTS — PROPORTION THAT HAD IMPLEMENTED AT LEAST ONE SELECTED PROFESSIONAL DEVELOPMENT AND/OR CURRICULUM ACTIVITY, BY LEVEL OF RELATIVE ISOLATION



Source: Table 3.29



In most instances, schools that reported having implemented a specific Aboriginal education programme were still operating the programme at the time of the survey. However, programmes had mainly only been partially implemented. For example, of those schools that, at the time of the survey, had implemented Aboriginal Studies (across the curriculum), 71.4 per cent (CI: 66.8%–76.1%) had partially implemented the programme and 22.8 per cent (CI: 18.7%–26.9%) had fully implemented the programme.

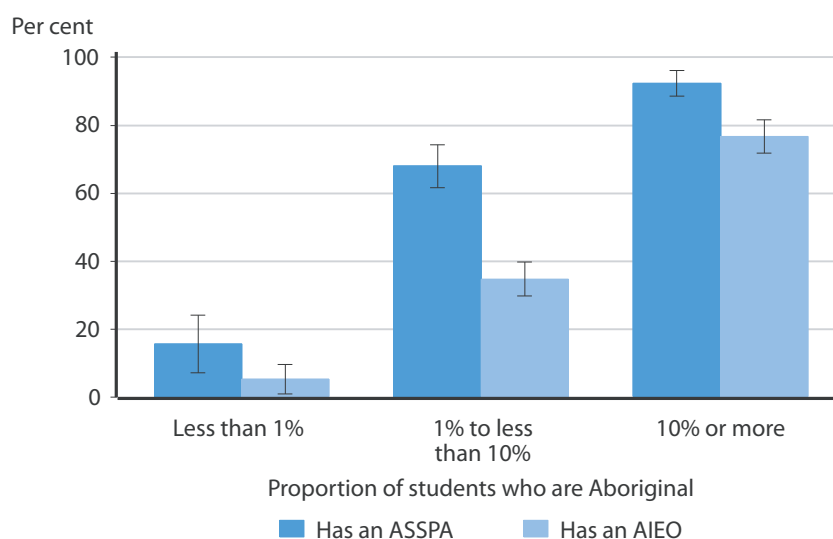
### ASSPAs and AIEOs

At the time of the survey, most schools with Aboriginal students in Western Australia had an ASSPA (60.0 per cent; CI: 54.7%–65.3%). AIEOs were employed in 38.1 per cent (CI: 34.1%–42.1%) of schools (Table 3.30).

As could be expected, ASSPA Committees and AIEOs were more likely to be present in areas with a relatively high concentration of Aboriginal children and schools with a large Aboriginal student population. In addition, they tended to be located in Government schools as opposed to Catholic or Independent schools. Virtually all schools in areas with high or extreme relative isolation had an ASSPA committee, while the same was true of less than half of schools in the Perth metropolitan area (43.3 per cent; CI: 36.7%–49.9%). Consistent with this pattern, ASSPA committees were more likely to be part of schools with a relatively large Aboriginal student component — 15.7 per cent (CI: 7.3%–24.1%) of schools with less than 1 per cent Aboriginal students had an ASSPA Committee compared with almost all schools with 10 per cent or more Aboriginal students (92.3 per cent; CI: 88.5%–96.2%) (Table 3.30).

Although schools were less likely to have an AIEO than an ASSPA, the majority of schools in areas of high or extreme relative isolation, and those with 10 per cent or more of their students being Aboriginal, had an AIEO (79.0 per cent; CI: 71.2%–86.9%, and 76.8 per cent; CI: 71.8%–81.7% respectively) (Figure 3.16).

**FIGURE 3.16: SCHOOLS WITH ABORIGINAL STUDENTS — PROPORTION WITH AN ABORIGINAL STUDENT SUPPORT AND PARENT AWARENESS COMMITTEE (ASSPA) OR ABORIGINAL AND ISLANDER EDUCATION OFFICERS (AIEOs), BY PROPORTION OF STUDENTS WHO ARE ABORIGINAL**



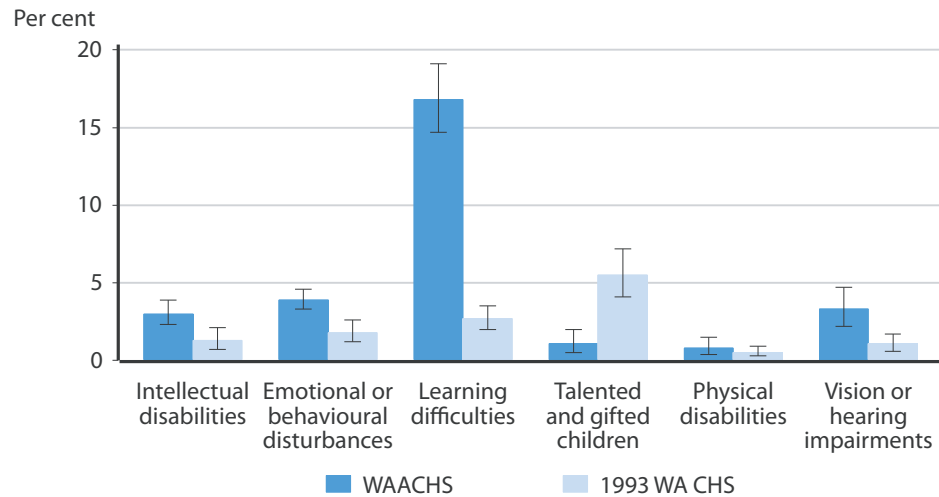
Source: Table 3.30



## USE OF SCHOOL SUPPORT SERVICES

Teachers were asked whether students had received any of a range of support services either within or out of the classroom during the current year at school. Figure 3.17 shows the proportion of Aboriginal students who have used each of these services in the past year, compared with corresponding figures from the 1993 *Western Australian Child Health Survey*.

**FIGURE 3.17: ABORIGINAL AND ALL STUDENTS — USE OF SCHOOL SUPPORT SERVICES, WAACHS COMPARED WITH CHS**



Source: Tables 3.31 & 3.32

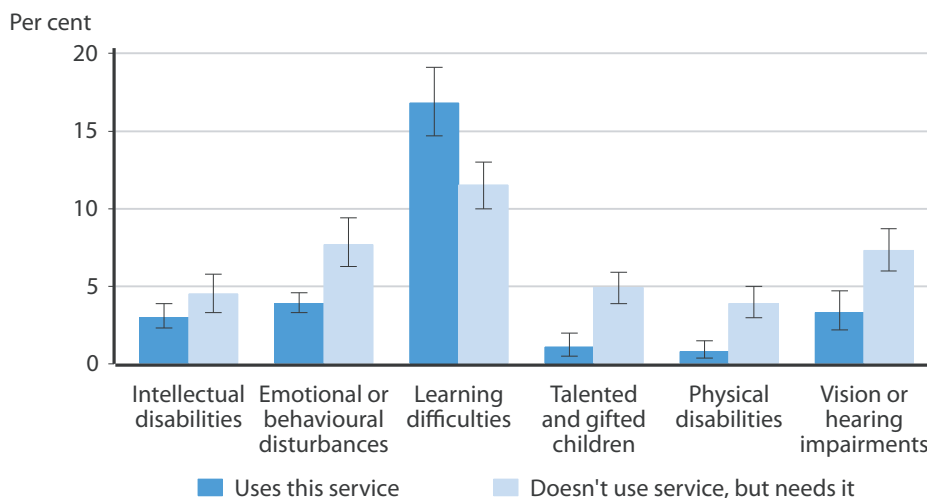
The proportion receiving school support services for learning difficulties was higher among Aboriginal students compared with all students (16.8 per cent; CI: 14.7%–19.1%, and 2.7 per cent; CI: 2.0%–3.5%, respectively). Compared with all students, a higher proportion of Aboriginal students had received support for emotional or behavioural disturbances (3.9 per cent; CI: 3.3%–4.6%, compared with 1.8 per cent; CI: 1.2%–2.6%) and intellectual disabilities (3.0 per cent; CI: 2.3%–3.9%, compared with 1.3 per cent; CI: 0.7%–2.1%). However, fewer Aboriginal students had received services for talented and gifted children (1.1 per cent; CI: 0.5%–2.0%, compared with 5.5 per cent; CI: 4.1%–7.2%) (Tables 3.31 and 3.32).

## UNMET NEED FOR SUPPORT SERVICES

Teachers were also asked whether students who weren't using school support services needed these services. Figure 3.18 shows the proportion of Aboriginal students receiving each service along with the proportion who did not use a service but needed it. The data suggest that there is substantial unmet need for each type of support service, with the proportion of students not receiving the service but needing it being higher than the proportion receiving the service. This applies to all school support services except learning difficulties.



**FIGURE 3.18:** STUDENTS AGED 4–17 YEARS — USE OF, AND NEED FOR, SCHOOL SUPPORT SERVICES



Source: Table 3.31

### LEVEL OF RELATIVE ISOLATION

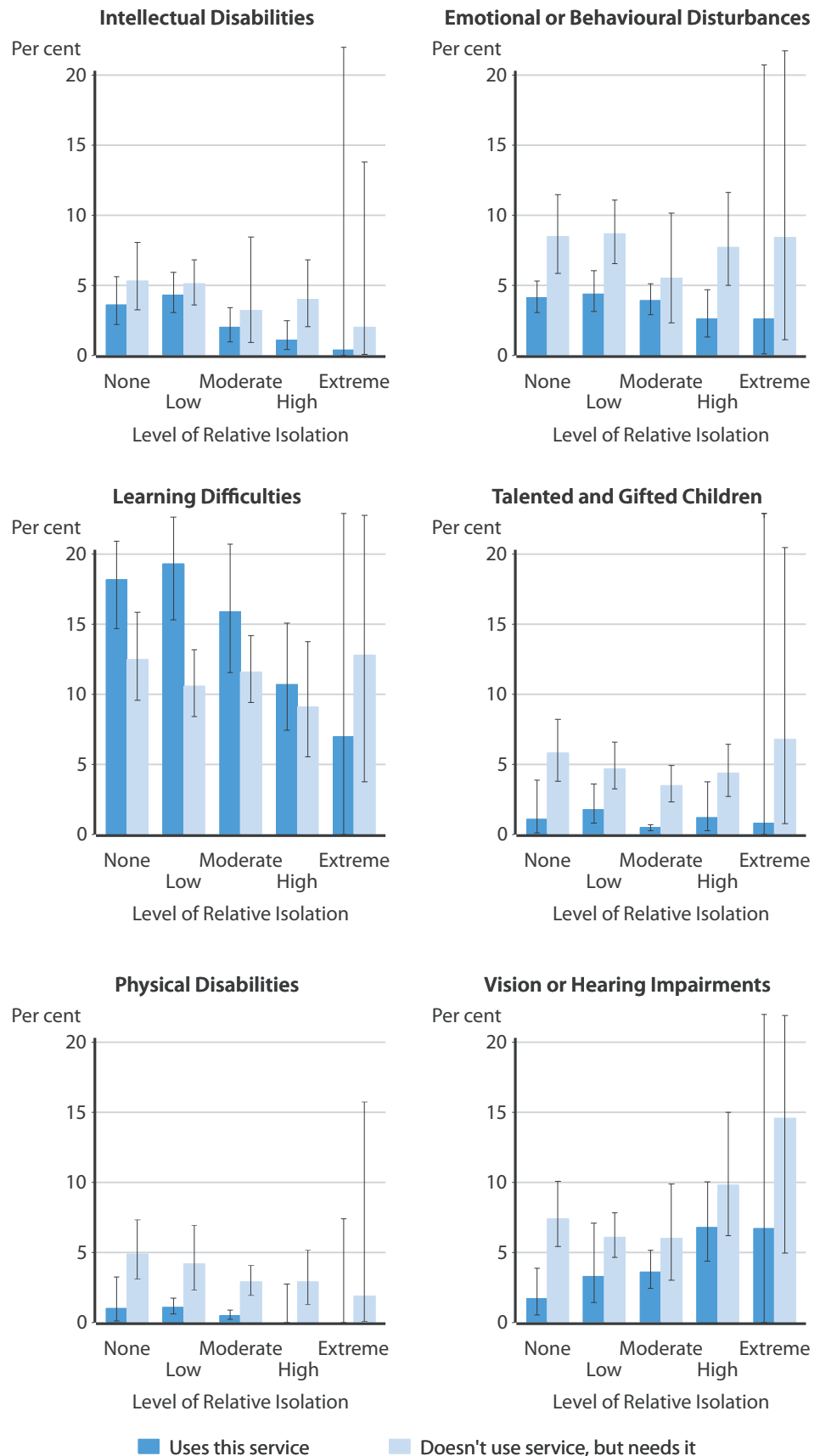
Both the use of, and the need for, school support services varied with LORI. As seen in Figure 3.19, use of school support services, except for vision and hearing impairments, declined with increasing relative isolation, while demand for most services remained approximately constant across levels of relative isolation (except for vision and hearing impairments where demand was highest in areas of high and extreme relative isolation).

#### USE OF SCHOOL SUPPORT SERVICES

While the proportions of Aboriginal students using school support services identified in the survey was generally higher than the corresponding proportions of all students (as measured by the 1993 *Western Australian Child Health Survey*), there appears to be considerable unmet need for services. The survey findings also show that the shortfall in service provision is greatest in the more isolated areas—highlighting the difficulty of providing support services in isolated areas, despite a similar level of need for services across all levels of relative isolation.



**FIGURE 3.19:** STUDENTS AGED 4–17 YEARS — USE OF, AND NEED FOR, SCHOOL SUPPORT SERVICES, BY LEVEL OF RELATIVE ISOLATION



Source: Table 3.33





## ENDNOTES

1. Department of Education, Science and Training. *National report to Parliament on Indigenous education and training, 2003*. Canberra: Commonwealth of Australia; 2005. p. 3.
2. Department of Education and Training. *Re-thinking the provision of education and training in remote Aboriginal communities project report 2004*. Perth: Department of Education and Training; 2004.
3. Ministerial Council on Education, Employment, Training and Youth Affairs. *Demand and supply of primary and secondary school teachers in Australia*. Carlton: MCEETYA. 2005.
4. Department of Education and Training & Australian Education Union. *Government School Teachers' and School Administrators' Certified Agreement 2004*. Perth. 2004.
5. Ministerial Council on Education, Employment, Training and Youth Affairs. *National Report on Schooling in Australia 2001*. [Online] Carlton: MCEETYA; 2001. [cited 2005 Aug 16]. Available from: URL: <http://cms.curriculum.edu.au/anr2001/>
6. Department of Indigenous Affairs. *Overcoming Indigenous disadvantage in Western Australia report*. Perth: Department of Indigenous Affairs; 2005.
7. Le AT, Miller PW. Choice of school in Australia: Determinants and consequences. *The Australian Economic Review* 2004;36:55–78.



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## Chapter 4

### SCHOOL ATTENDANCE

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*The levels of school attendance of Aboriginal students are well below the levels of non-Aboriginal students. Poor school attendance is a key factor in the gap in academic performance between Aboriginal and non-Aboriginal students. While improving attendance at school for Aboriginal students is only one aspect of improving academic performance, it is an important first step. This chapter describes the patterns of attendance at school of Aboriginal students and is examined in the context of the characteristics of the students, their carers, families and households and schools.*

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#### SUMMARY

##### Attendance at school

Compared with non-Aboriginal students, Aboriginal students miss significantly more school. The median number of days absent was 26 days for Aboriginal students. The 1993 *Western Australian Child Health Survey* (WA CHS) found that the median number of days absent for all Western Australian students was 8 days. Only 18.1 per cent of Aboriginal students had less than 8 days of absence from school.

The following factors were found to be associated with attendance at school:

- ◆ Students were one and a half times less likely to have been absent from school for more than 26 days if their carers had been educated beyond Year 10 to Years 11 or 12.
- ◆ Students assessed by their teachers to be at high risk of clinically significant emotional or behavioural difficulties were almost twice as likely to have at least 26 days of absence from school.
- ◆ Students in families where 7 to 14 life stress events had occurred in a given year were almost twice as likely to be absent from school for 26 days or more than students from families where 2 or less life stress events had occurred.
- ◆ Students were more likely to miss more than 26 days of school if their main language spoken in the playground was Aboriginal English or an Aboriginal language.
- ◆ Students who had trouble getting enough sleep were over one and a half times more likely to be absent for at least 26 days.
- ◆ Students who had never attended day care were one and a half times more likely to be absent from school for 26 days or more during the school year.
- ◆ Students whose primary carer had needed to see the school principal about a problem students were having at school were almost twice as likely to be absent for 26 days or more.
- ◆ Poorer attendance at school was found in schools with a high proportion of Aboriginal students, schools that had Aboriginal and Islander Education Officers (AIEOs), and Government schools in the highest quartile of the socioeconomic index for schools (SEI).



## **SUMMARY** *(continued)*

### Unexplained absence from school

Almost half of all Aboriginal students had 10 or more unexplained days absent from school during the school year compared with only 4 per cent of all students in the 1993 WA CHS. Two thirds of the absences of Aboriginal students away for at least 26 days were unexplained.

Most of the factors found to be associated with poor school attendance were also associated with high levels of unexplained absences from schools. The following additional factors were found to be associated with students having 10 or more unexplained absences from school:

- ◆ Students whose primary carer had ever been arrested or charged with an offence were almost twice as likely to have 10 or more unexplained absences.
- ◆ Students whose primary carer had been forcibly separated from their natural family were over one and a half times as likely to have 10 or more unexplained absences.
- ◆ Students who lack the support of someone at home to help them with their school work were over one and a half times as likely to have 10 or more unexplained absences from school.



## INTRODUCTION

This chapter is about school attendance – and more particularly about the circumstances associated with being absent from school. In the two years of community consultations that preceded the WAACHS, Aboriginal people regularly cited the school attendance and absence from school of their children as an important aspect to measure and report and were insistent on the survey measuring this aspect of the child’s educational experience.

The Education Working Party (see *Chapter 1*) designed questions to measure school attendance and assess some of the reasons for non-attendance. Lengthy discussions took place in the Working Party about the role of attendance and the meaning of non-attendance (i.e. absences) from school. Many of these discussions focussed on the use of information about the school attendance of Aboriginal children and the interpretation of the findings. How would the findings be used and by whom? Several issues were highlighted in these discussions that are worthy of mention.

- ◆ The Working Party was aware that the contemporary pattern of poor attendance at school of Aboriginal children and young people is embedded in a wider history of colonisation and with the role that colonial education played as a force that destroyed Aboriginal culture and language. The experience of education, in population terms, has not been positive for Aboriginal people.
- ◆ In a contemporary society where education is valued for its relevance in gaining employment, Aboriginal people rightly question this value in light of the disadvantage they continue to sustain in areas where there is no meaningful access to employment. Moreover, for many families in rural and remote regions, education leads to diminishment of community capacity, the weakening of family contact and ties, and the dissolution of culture as young people who gain higher education leave their family and community of origin to improve their prospects.
- ◆ For all children and families (Aboriginal and non-Aboriginal alike), contemporary media portrayals of school attendance, and particularly absenteeism, present stereotypes largely based on blame: Attending school is reduced to a simple formulae of parental and/or school system responsibility. When children do not attend, and particularly when they are truant, the blame for this is directed at children (particularly when they are older), the parent and the school. Neither existing data nor the data presented here support a view that school attendance is merely a matter of someone’s responsibility.

The findings in this chapter are confronting. However, they supply evidence on which to base decisions for change. In presenting information about school attendance and absence, it is important to acknowledge the outcomes that are desired. What is desired for all children are educational experiences that:

- ◆ support, promote and develop their talents and interests
- ◆ respect and validate them
- ◆ challenge and develop their talents
- ◆ embrace their cultural heritage and the opportunities that this heritage offers
- ◆ empower them as life long learners with the tools of learning
- ◆ respond to the life experiences that children bring with them to school.



Children deserve and need school to be a positive experience and for school to be a place where they want to attend. It is in this light that attendance becomes an important (but not the only) indicator of these desired outcomes.

### Aboriginal children and school attendance – Australian research

At the time of the survey, school attendance in Western Australia was compulsory through to the end of the school year in which children turned 15 years of age. Missing school means that students have reduced hours of instruction resulting in reduced levels of educational success. A consequence of this is that many young people leave school at an early age with low skill levels, putting themselves at greater risk of poor life prospects including reduced employment opportunities, poverty and welfare dependency and at greater risk of contact with the justice system.<sup>1</sup>

The available Australian research on the school attendance of Aboriginal children suggests that the poor rate of attendance at school among Aboriginal children is a major contributor to the lower level of educational success among Aboriginal students.<sup>2</sup> The underlying reasons for the high rates of absenteeism have been reported to include low socioeconomic status, low parental achievement, domestic violence, child abuse and drug and alcohol abuse.<sup>1,2,3,4,5</sup>

As children attend school, their experiences at school influence the decisions that they (and others) make about its relevance, importance, and their enjoyment of it. As time goes on, attendance at school becomes only one factor, albeit an important one, that links school attendance and outcomes of learning. Increasing absence may represent an outcome of disengagement arising from frustration and a lowering of self-esteem in response to poor performance. It may represent alienation from school through failure to identify with educational values and expectations.<sup>6</sup> It may also represent failure of the school ethos to respect and validate cultural and self identity, and to supply experiences that are relevant to life's circumstances. Theories and supporting evidence about the causes of non-attendance carry with them significant implications for responses to the problem. These beliefs, in their extreme, can lead to a unilateral focus on the student or family as the principal source of non-attendance or upon the school system as the agent of non-attendance.<sup>7</sup>

Gray and Beresford noted that, despite the amount of literature on the subject of non-attendance for Aboriginal students, 'there has been no consistent definition of what constitutes non-attendance for Aboriginal students and a lack of a consistent methodology for data collection' and that school records were likely to understate the extent of the problem.<sup>8</sup> This chapter describes how attendance and absence was measured in the WAACHS and examines family, household, community and school level influences that are associated with poor attendance.

### Chapter structure

This chapter describes school attendance patterns among Aboriginal children in Western Australia and examines the factors that are associated with missing at least 26 days of school during the school year. The rationale for using the median attendance level as the basis for analysis along with prevalence levels are detailed at the beginning of the chapter.

The bulk of the chapter analyses the factors associated with being absent from school for 26 days or more. Relevant factors are discussed separately within groups — firstly, student factors, followed by carer factors, family factors and finally school-level factors.



Within each of these groups, analysis is directed toward identifying:

- ◆ factors significantly associated with missing 26 days or more of school
- ◆ factors that predict missing 26 days or more of school (independent of other factors)
- ◆ factors that have no association with missing 26 days or more of school.

To conclude, predictors from each of the groups – student, carer, family and school level factors – are considered collectively, in a final model, to determine the most significant independent predictors of missing 26 days or more of school.

The same format has been applied to the section on unexplained absence.

Finally, the chapter looks briefly at the impact of poor school attendance on academic performance.

## MEASURING SCHOOL ATTENDANCE

### DAYS ABSENT FROM SCHOOL

School principals were asked about the attendance at school of their students. They were asked ‘So far this school year, what is the total possible days of attendance for this student?’ and ‘how many of these days was the student absent?’ Principals were asked to round up days absent to whole days.

For comparability, the number of reported days absent was converted to an estimate for the full year by standardising to a reference year of 209 days attendance at school. This allows for the possibility that the total possible number of days at school could vary between school jurisdictions and parts of the state. Standardisation was achieved by multiplying the ratio of the days absent over the days of possible attendance by 209. For a few of the children in the survey, the number of possible days of attendance was nil. This occurred because the survey had spanned two calendar years resulting in some forms being filled out prior to the commencement of the school year. Children affected by this were assumed to have 100 per cent attendance.

### ATTENDANCE RATIO

An attendance ratio was constructed for each student by subtracting the days of absence from possible days of attendance and dividing the result by possible days of attendance. The survey was carried out over an extended period of time and consequently the number of possible attendance days for students varied from school to school – from nil to a maximum of 209 days. For children who, at the time of the survey, had no possible days of attendance, an attendance ratio of 100 per cent was assumed.

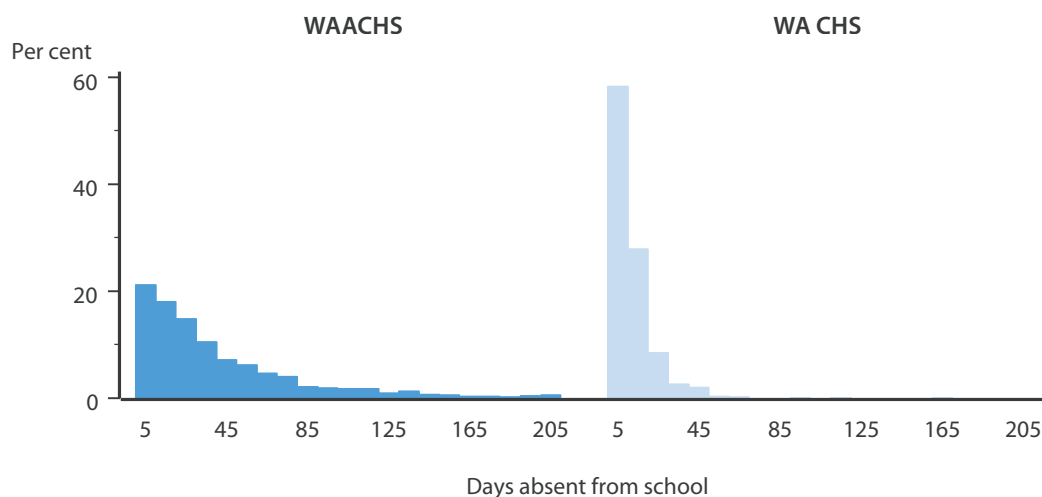
The median attendance ratio for Aboriginal students was 87.5 per cent (CI: 86.4%–88.4%) which translated to 183 days of attendance out of a possible 209 days. This means that half of all Aboriginal students would have missed at least 26 days (CI: 24–28) of school in the school year. In contrast, the 1993 *Western Australian Child Health Survey* (WA CHS) found that, among the total population of 4–16 year-olds, the median number of days absent from school was 8 days (CI: 6–8). Fewer than one-fifth (18.1 per cent; CI: 15.9%–20.4%) of Aboriginal students had less than 8 days absence from school (Table 4.1). The findings of the survey support previous findings that Aboriginal school children attend school on average about 84 per cent of the time.<sup>3</sup>





Figure 4.1 shows the distribution of days absent for Aboriginal students (from the WAACHS) and all students from the 1993 WA CHS. Notable is the cluster around the lower number of days absent for all students compared with the greater spread among Aboriginal students.

**FIGURE 4.1:** STUDENTS AGED 4–17 YEARS — DAYS ABSENT FROM SCHOOL, WAACHS COMPARED WITH WA CHS



### Age and sex

While there were no significant differences between males and females in the proportion who had missed at least 26 days of school, there was a significant difference between 4–11 year-olds and 12–17 year-olds. Over half (57.0 per cent; CI: 52.0%–61.7%) of all Aboriginal students aged 12–17 years were absent for 26 days or more compared with 46.5 per cent (CI: 43.0%–50.1%) of students aged 4–11 years. However, this age difference was only reflected among female students where 60.5 per cent (CI: 54.2%–66.7%) of 12–17 year-olds had missed 26 days of school compared with 43.9 per cent (CI: 39.2%–48.6%) of 4–11 year-olds (Table 4.2).

By single years of age there were no differences among males. For females, 14 year-olds had the highest proportion absent for 26 days or more (77.4 per cent; CI: 69.6%–83.7%). This difference was statistically significant for all ages with the exception of 13 year-olds, 16 year-olds and 17 year-olds (Table 4.3).

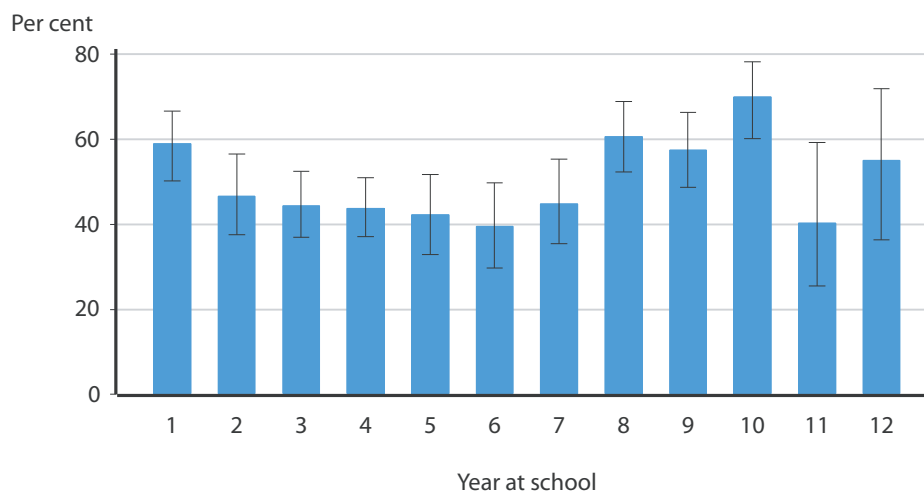
Medians were also calculated specifically for male and female students and for students in two age groups. For both males and females, the median number of days absent from school was 26 (CI: 23–29). For students aged 12–17 years the median number of days absent from school was 32 days (CI: 27–35), significantly higher than the median for students aged 4–11 years (24 days; CI: 22–26) (Table 4.4).

### Year at school

As shown in Figure 4.2, the proportion of students who missed at least 26 days of school in the school year tended to decline from Year 1 to Year 6 then increase to Year 10 where the proportion who have missed 26 or more days peaked at 70.0 per cent (CI: 60.2%–78.2%). This is significantly higher than for all primary school years with the exception of Year 1. The effect of staying on at school beyond the end of compulsory schooling is reflected among Year 11 students with the proportion who have missed 26 days or more of school falling to 40.3 per cent (CI: 25.5%–59.2%).



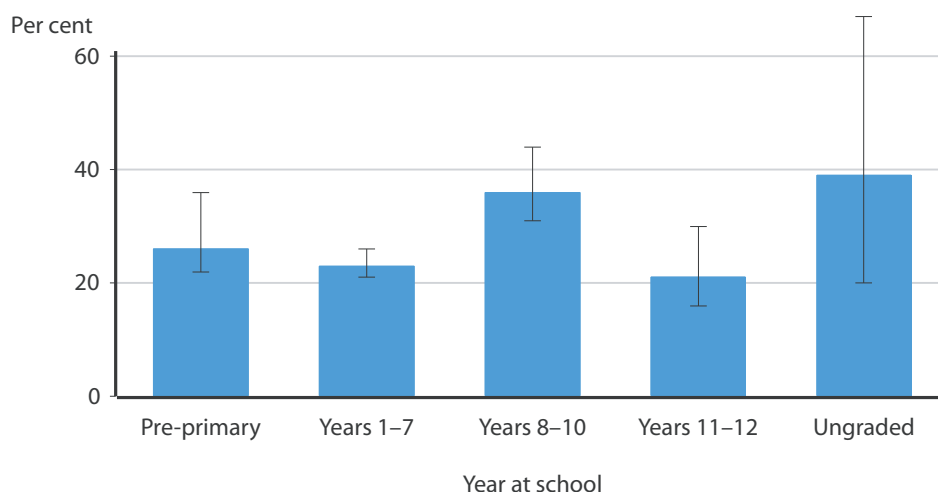
**FIGURE 4.2:** STUDENTS AGED 4–17 YEARS — PROPORTION ABSENT FROM SCHOOL FOR 26 DAYS OR MORE, BY YEAR AT SCHOOL



Source: Table 4.5

Median days of absence were calculated for school year groups. For Years 1–7, the median number of days absent was 23 days (CI: 21–26). This was significantly lower than the median for students in Years 8–10 (36 days; CI: 31–44) and similar to the median for Years 11–12 (21 days; CI: 16–30) (Figure 4.3).

**FIGURE 4.3:** STUDENTS AGED 4–17 YEARS — MEDIAN NUMBER OF DAYS ABSENT FROM SCHOOL, BY YEAR AT SCHOOL



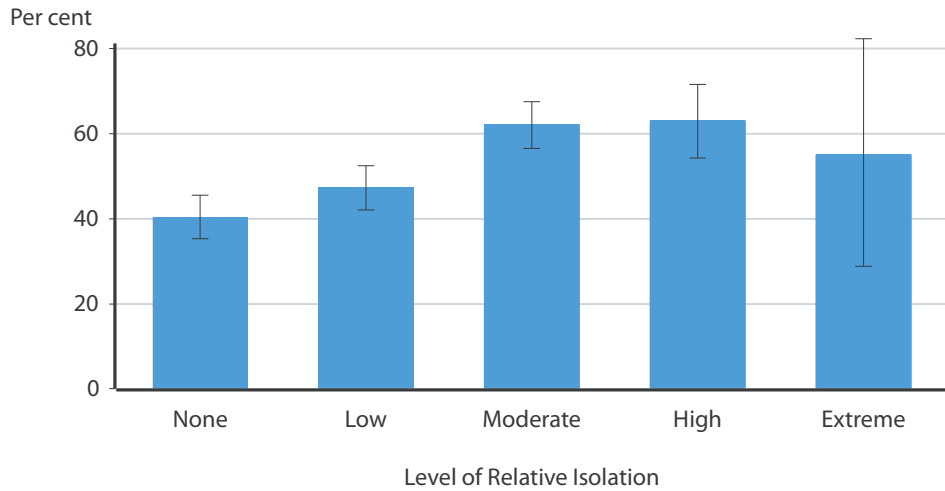
Source: Table 4.4

### Level of Relative Isolation

Where students lived was related to the proportion of students who had missed at least 26 days of school. As shown in Figure 4.4, the proportion of students who had missed at least 26 days of school was significantly lower in the Perth metropolitan area and in areas of low isolation (40.3 per cent; CI: 35.3%–45.5%, and 47.4 per cent; CI: 42.1%–52.5% respectively) than in areas of moderate and high isolation (62.1 per cent; CI: 56.6%–67.6%, and 63.1 per cent; CI: 54.3%–71.6% respectively).



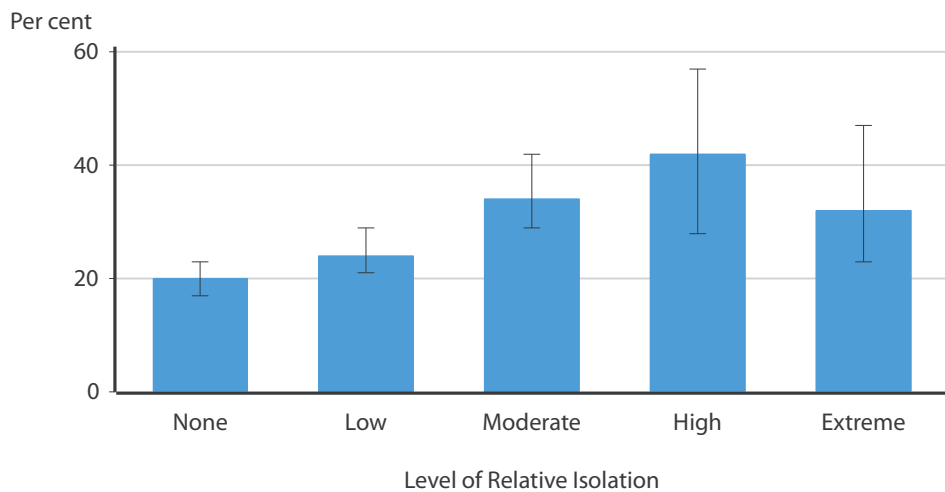
**FIGURE 4.4:** STUDENTS AGED 4–17 YEARS — PROPORTION ABSENT FROM SCHOOL FOR 26 DAYS OR MORE, BY LEVEL OF RELATIVE ISOLATION



Source : Table 4.6

Median days absent were calculated for each level of relative isolation. As shown in Figure 4.5, the median number of days absent for students in the Perth metropolitan area (20 days; CI: 17–23) was significantly lower than for students in areas of moderate and high isolation (34 days; CI: 29–42, and 42 days; CI: 28–57 respectively).

**FIGURE 4.5:** STUDENTS AGED 4–17 YEARS — MEDIAN NUMBER OF DAYS ABSENT FROM SCHOOL, BY LEVEL OF RELATIVE ISOLATION



Source : Table 4.4

4



## NATIONAL AND INTERNATIONAL PERSPECTIVES ON SCHOOL ATTENDANCE

Previous research with Western Australian children has shown a clear relationship between school attendance and academic performance. In the 1993 Western Australian Child Health Survey, the median number of days absent from school for all students was 8 days.<sup>9</sup> In the WAACHS, the median number of days absent for Aboriginal students was substantially greater at 26 days. More widely in Australia, there have been comprehensive reviews of school attendance and repeated calls for improvements in the school attendance rates for Aboriginal and Torres Strait Islander children.<sup>2,3,5,10,11</sup>

### Australia

The 1996 *National School English Literacy Survey* reported that Aboriginal students missed on average 17.9 days of school per year, compared with 6.2 days for non-Aboriginal students. The Aboriginal supplementary sample in this survey was selected from schools with at least 10 Aboriginal students in both Years 3 and 5.<sup>12</sup>

In an analysis of South Australian attendance data, Groom and Hamilton reported that 'the average attendance rate of Aboriginal students at primary schools was 85.5 per cent compared with 93.1 per cent for the total primary school population. This represents an average loss to each Aboriginal student of a day and a half each fortnight. The secondary school figures for the same period were 78.4 per cent compared with 89.4 per cent. This represents an average loss of over two days each fortnight.'<sup>13</sup> They also reported that in three unidentified states, absence rates for Aboriginal students ranged from 16 to 18 per cent compared with 5 to 8 per cent for non-Aboriginal students.<sup>13</sup>

### New Zealand

In New Zealand, the 2002 *Survey on Attendance, Absences and Truancy* produced estimates of absences from school based on data collected from 2,195 state schools (including primary, intermediate, secondary and composite schools) out of a total of 2,540 such schools in New Zealand. The survey found that New Zealand Māori students had an average absence rate from school of 11.2 per cent compared with an average absence rate of 7.4 per cent for New Zealand students of European ancestry. The rate of explained absences was 6.3 per cent among New Zealand Māori students and 5.6 per cent among New Zealand students of European ancestry while truancy rates were 4.8 per cent and 1.8 per cent respectively. Within Māori students, no differences were reported between males and females. Figures were not separately reported by year in school.<sup>14</sup>

### Canada

Canadian data sources are relatively silent about the measurement of attendance rates in First Nations students. Ten per cent of the 440 recommendations in the report of the 1996 Canadian Royal Commission on Aboriginal Peoples specifically pertained to education. The Commission received substantial evidence concerning

*Continued . . .*



**NATIONAL AND INTERNATIONAL PERSPECTIVES ON SCHOOL ATTENDANCE** (*continued*)

the changes required across the education system to enable greater participation in education of Canadian First Nation Peoples. Canadian data focus primarily upon retention rates rather than attendance.<sup>15</sup>

There are several suggestions of poor school attendance in Canadian education literature. At the Blue Quills Native Education Centre, the implementation of an outdoor curriculum improved attendance from 'below 80 per cent' for the 1985–86 school year<sup>16</sup> and McCaskill reported that the Calgary Plains Indian Cultural Survival School had an average daily attendance rate of 60 to 70 per cent in the same period.<sup>17</sup> However, it remains the case that the empirical data on Canadian Aboriginal children's attendance rates that are available are very sparse. Attendance rates for schools selected by Bell *et al* (2004) in a review of ten case studies of Canadian Aboriginal schools which are performing well varied from 81.4 per cent at the Gift Lake school with 205 First Nations students to over 90 per cent for both the Southwest Education Centre with 140 First Nations students and the Chalo school with 130 First Nations students.<sup>18</sup>

## United States

In 1993–94, the *Schools and Staffing Survey* (SASS), an integrated survey of American schools, school districts, principals, teachers and student records, was supplemented with an Indian and Public Schools Questionnaire sent to all 170 schools either operated by the Bureau of Indian Affairs (BIA) or by tribal organisations under contract from the BIA. From these data, the rate of student absence from school was estimated at 8.2 per cent (CI: 8.0%–8.4%) among Native American Indian students compared with an estimated 6.4 per cent (CI: 6.3%–6.5%) from the total student population in public schools. Among students in BIA or Tribal schools, the rate of student absence from school increased from 6.5 per cent (CI: 6.2%–6.8%) in elementary schools to 9.7 per cent (CI: 9.7%–9.7%) in secondary schools and 11.3 per cent (CI: 11.3%–11.3%) in combined schools. Among all public schools the corresponding absentee rates were 5.5 per cent (CI: 5.3%–5.7%) in elementary schools, 8.3 per cent (CI: 8.1%–8.5%) in secondary schools, and 6.3 per cent (CI: 5.9%–6.7%) in combined schools.<sup>19</sup>

The *National Education Longitudinal Study* of 1988 followed 24,599 students for five years, including 299 students identified as being of American Indian or Alaska Native ethnicity. In 1990, when these students were in 10th grade, 41.9 per cent of American Indian students missed 5 or more days in the first half of the school year compared with 24.8 per cent of all students. In 1992 when the students were in 12th grade, 28.6 per cent of American Indian students missed 7 or more days in the first half of the school year compared with 25.9 per cent of all students.<sup>20</sup> The *2005 National Indian Education Study* will provide detailed information on both attendance and academic performance of North American Indian and Alaska Native students.

*Continued . . .*

## NATIONAL AND INTERNATIONAL PERSPECTIVES ON SCHOOL ATTENDANCE (continued)

### Comparison with Western Australian Aboriginal school children

For variables that are highly skewed, such as attendance rates, the median is a better indicator of overall averages than the population mean. For this reason the data presented in this chapter are based on medians. However, the comparative data presented here are based on mean attendance rates. Means have therefore been estimated for comparison purposes from the WAACHS data and the 1993 WA CHS data. For Aboriginal children attending school, the mean absence rate was 18.8 per cent (CI: 17.7%–20.0%) corresponding to 39 days absence from school. The mean absence rate among all Western Australian school children in the 1993 WA CHS was 4.8 per cent (CI: 4.5%–5.2%) corresponding to 10 days absence from school.

Compared with the figures for New Zealand Māori students and American Indian and Alaska Native students, the mean absence rate for Western Australian Aboriginal students is considerably higher. However, the absentee rate for all Western Australian students in 1993 was slightly better than the overall absentee rates in New Zealand or the United States.

There are important differences in the way educational services for Indigenous students are structured and administered in each country that impact on the interpretation of these figures. In Canada, approximately 60 per cent of registered Indian school children living on-reserve are enrolled in First Nations managed schools, with the remaining 40 per cent attending provincial schools. Since 1973, it has been Canadian policy for First Nations education to be controlled by First Nations at the local level. While these schools receive federal funding through the Canadian Department of Indian and Northern Affairs, only very limited data is collected at the national level. Within the provincial school systems (attended by 40 per cent of registered Indian children living on-reserve and the approximately 25 per cent of registered Indian children who live off-reserve), only British Columbia collects Aboriginal identification within school statistics. Unfortunately British Columbia does not collate figures on school attendance at the province level.<sup>21</sup>

In the United States, the *1975 Indian Self-Determination and Education Assistance Act* allowed individual tribes and Indian organisations to take over and run schools funded through the Bureau of Indian Affairs. Over time, the number of schools under direct Indian control has grown. While schools are administratively controlled at the local level, the United States maintains a comprehensive programme of school and student surveys, which have included over sampling of Indian students on several occasions. While attendance and achievement of American Indian and Alaska Native school children lags behind white children, figures for black and Hispanic school children show some greater disparities.

The majority of the national and international literature on educational participation is focused upon school retention statistics rather than school attendance statistics. In Australia, school retention has typically focused upon

*Continued . . .*



### NATIONAL AND INTERNATIONAL PERSPECTIVES ON SCHOOL ATTENDANCE (*continued*)

participation in Years 11 and 12 of high school – that is, the proportion of students who participate in the post-compulsory years of school. Improving retention of all students, and particularly Aboriginal students, is regularly charted in official collections. The measurement of school retention overshadows the measurement of school attendance as a performance indicator of educational participation.

While the focus on educational retention is understandable, attendance data also provide a critical measure of individual participation in education. Thus, these data provide valuable insight into the pathway toward later retention in the post-compulsory years. Quite apart from the issue of school retention into the post-compulsory years, these data suggest that the total level of participation in education by Aboriginal students is substantially and chronically low relative to non-Aboriginal students, and that attendance ratios should be a key performance indicator in charting educational improvements for Aboriginal children and young people.

## 4

### FACTORS INFLUENCING SCHOOL ATTENDANCE

There are a range of factors that could affect school attendance. These include personal characteristics such as physical health and social and emotional wellbeing; family and community characteristics such as stress placed upon families, whether carers had been forcibly separated from their families when they were children, financial strain, housing and mobility; and school issues such as size and type of school, proportion of students in the school who are Aboriginal, educational curricula, and teacher training. The interaction of these factors can impact on the student's desire to go to school, their sense of belonging and the desire to do well at school.

The survey examined a number of these issues and, for the purposes of this analysis, these have been grouped into four distinct categories – student factors, carer factors, family factors and school level factors.

#### STUDENT FACTORS

Issues relating to the student include neonatal factors, whether they had ever been in day care and main language spoken at school, in the playground and in the classroom (see *Glossary*). A number of physical health factors were looked at as well as the social and emotional wellbeing of the student.

#### Alcohol consumption by birth mothers during pregnancy

Over half of students whose mother had drunk alcohol during pregnancy were absent from school for at least 26 days (57.3 per cent; CI: 51.2%–63.2%). This was significantly higher than for students whose mothers had not drunk alcohol during pregnancy (47.2 per cent; CI: 43.5%–50.9%) (Table 4.7).



### Physical health of student and trouble getting enough sleep

A number of health variables were examined with respect to school attendance. These included whether the child had normal vision in both eyes, normal hearing, whether they had ever had runny ears, whether they had difficulty saying certain sounds, whether they had ever had asthma, whether they had difficulty getting enough sleep (Table 4.8), diet and nutrition, and whether they currently had holes in their teeth. Of these variables, none were found to be associated with being absent from school for 26 days or more in a school year. However modelling did show that students who had difficulty getting enough sleep were more likely to miss at least 26 days of school.

### Youth risk behaviour

Tobacco smoking, alcohol drinking and marijuana use, as well as experiences of bullying at school and racism, as reported by young people aged 12–17 years were also examined against school attendance. No significant associations were found.

### Day care

The survey found a strong association between school attendance and whether the student had ever been in day care. The proportion of 4–11 year-old students who had missed at least 26 days of school during the school year was significantly lower if they had been in day care at some time (35.5 per cent; CI: 29.4%–42.4%) relative to those who had never been in day care (51.8 per cent; CI: 47.5%–56.1%) (Table 4.9).

### Pre-school or kindergarten

Early childhood education is valued by both Aboriginal people and non-Aboriginal people as providing a good start to schooling.<sup>22</sup> The survey found that the proportion of students who had missed at least 26 days of school was higher among students who had never been to pre-school or kindergarten (54.5 per cent; CI: 41.6%–67.9%) than among those who had been to pre-school or kindergarten (46.0 per cent; CI: 42.3%–49.7%). However this difference was not statistically significant (Table 4.10).

### Helping with school work at home

The survey asked primary carers 'At home, who usually helps with school work?' (For definition of primary carer see *Glossary*). Among those students who had no-one to help them with their school work at home, the proportion with at least 26 days absence from school was significantly higher (64.4 per cent; CI: 55.9%–71.9%) than among those who had someone from their home who helped them with their school work (47.3 per cent; CI: 43.7%–50.8%) (Table 4.11).

### Language spoken at school

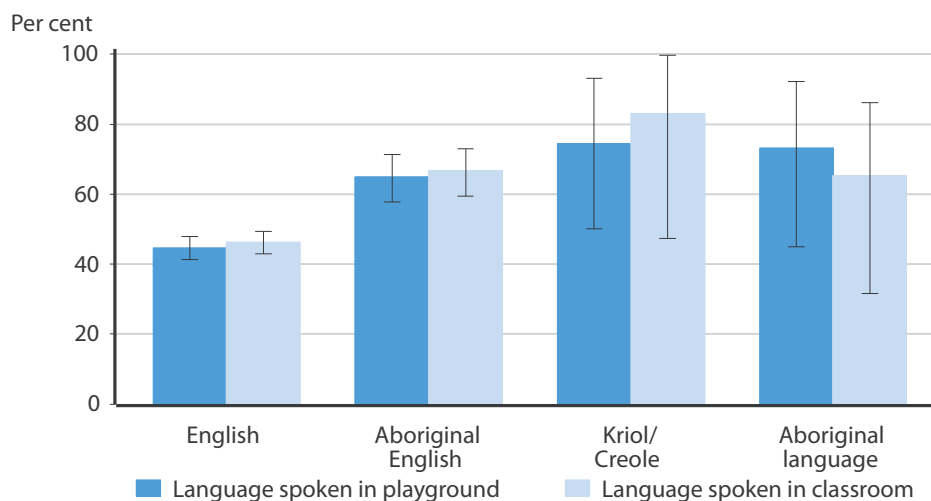
While the majority of students spoke English in the classroom, the main classroom language for 1,960 students (CI: 1,630–2,340) was Aboriginal English. Of these students, 66.7 per cent (CI: 59.4%–73.0%) were absent for 26 days or more. Among students whose main classroom language was English, 46.2 per cent (CI: 43.0%–49.4%) were absent for 26 days or more (Table 4.12).





Similarly, the proportion of students who had missed 26 days or more of school was higher among students whose main language spoken in the playground was Aboriginal English than among students who mainly spoke English (64.9 per cent; CI: 57.7%–71.3% compared with 44.6 per cent; CI: 41.3%–47.9%) (Table 4.13).

**FIGURE 4.6:** STUDENTS AGED 4–17 YEARS — PROPORTION ABSENT FROM SCHOOL FOR 26 DAYS OR MORE, BY LANGUAGE SPOKEN AT SCHOOL



Source: Tables 4.12, 4.13

### Academic performance

Teachers rated the overall academic performance of students on a five point scale, ‘far below age level’, ‘somewhat below age level’, ‘at age level’, ‘somewhat above age level’ and ‘far above age level’. The first two categories were combined to become ‘low academic performance’ and the remaining three were combined to become ‘average or above average academic performance’. See Chapter 5 for further information on measuring academic performance in the survey.

Six in ten students (58.9 per cent; CI: 55.0%–62.5%) with low academic performance were absent from school for at least 26 days in a school year compared with four in ten students (38.4 per cent; CI: 34.3%–42.7%) who had average or above average academic performance (Table 4.14).

### Use of school support services

Primary carers were asked whether, in the last 6 months, they or their partner had needed to see any of the following people about problems their child may have had at school: School psychologist/counsellor; Aboriginal and Islander Education Officer (AIEO); class/form teacher; deputy principal/deputy headmaster; and the principal/headmaster. An association with absence from school for 26 days or more was found only in relation to the principal or headmaster. The proportion of students absent from school for 26 days or more was significantly higher if their carers had needed to see the school principal or headmaster in the last six months (61.6 per cent; CI: 54.3%–68.1%) than if the carer had not needed to see the school principal or headmaster (48.0 per cent; CI: 44.8%–51.2%) (Table 4.15).



## Emotional or behavioural difficulties

Volume Two of the WAACHS — *The Social and Emotional Wellbeing of Aboriginal Children and Young People* reported the risk of clinically significant emotional or behavioural difficulties based on primary carer responses to the Strengths and Difficulties Questionnaire (SDQ)<sup>23</sup> (see *Glossary*). The same SDQ questions were asked of classroom teachers. Responses have been used to produce a teacher-assessed risk of clinically significant emotional or behavioural difficulties.

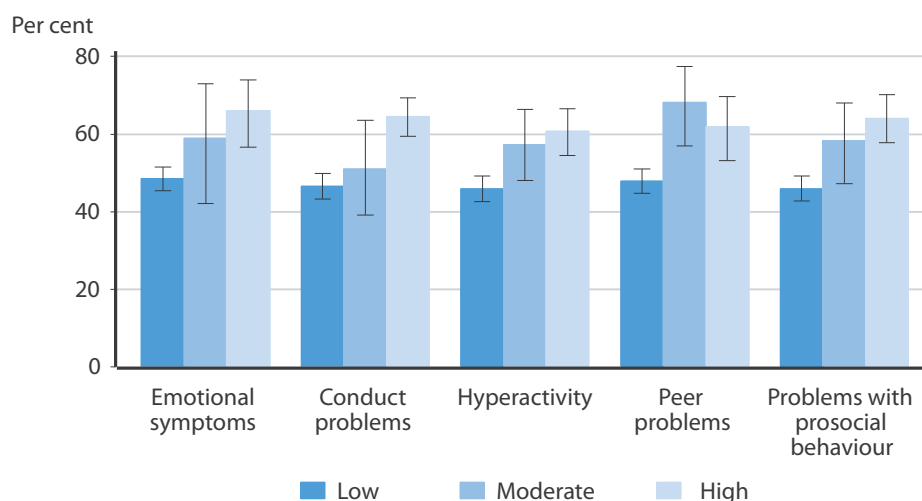
Poor school attendance was not found to be associated with risk of clinically significant emotional or behavioural difficulties as based on primary carer responses. However an association with poor school attendance was found with risk of clinically significant emotional or behavioural difficulties based on responses from teachers. The proportion of students who had missed at least 26 days of school was significantly higher among those at moderate and high risk of clinically significant emotional or behavioural difficulties (57.4 per cent; CI: 50.1%–64.3% and 66.2 per cent; CI: 60.2%–72.2% respectively) than those at low risk (44.8 per cent; CI: 41.5%–48.2%) (Table 4.16).

Medians were calculated for each level of risk of clinically significant emotional or behavioural difficulties. The median number of days absent from school for students at high risk of clinically significant emotional or behavioural difficulties (40 days; CI: 31–51) was significantly higher than for students at low risk (23 days; CI: 20–25). For students at moderate risk the median was 32 days (CI: 24–38) (Table 4.4).

## Specific emotional or behavioural difficulties

As shown in Figure 4.7, for all five sub-scales of the SDQ the proportion of students who had missed at least 26 days of school was significantly higher among students whose teachers had assessed them to be at high risk of clinically significant difficulties than students at low risk.

**FIGURE 4.7:** STUDENTS AGED 4–17 YEARS — PROPORTION ABSENT FROM SCHOOL FOR 26 DAYS OR MORE, BY RISK OF CLINICALLY SIGNIFICANT SPECIFIC DIFFICULTIES



Source: Tables 4.17, 4.18, 4.19, 4.20, 4.21



## Modelling the association between school attendance and student factors

## EXPLORING RELATIONSHIPS WITH MODELLING

The previous section has explored the relationship between levels of school attendance and a range of factors such as Level of Relative Isolation and main language spoken at school, where each factor has been examined separately. However, these factors may themselves be inter-related. The proportion of students whose attendance was below the median increased with increasing isolation. It was also higher for students who spoke Aboriginal English or an Aboriginal language. However, the proportion of students who speak Aboriginal English or Aboriginal languages increases with increasing relative isolation. It is possible that the observed relationship between poor attendance at school and main language spoken may in fact be a reflection of the relationships between the language spoken and isolation, and between isolation and attendance.

Statistical modelling can be used to assess the simultaneous impact of multiple factors and to determine the individual effects of each factor. Logistic regression models (see *Glossary*) have been used to explore a range of student, primary carer, family and school factors that may have had an affect on school attendance. The modelling techniques used account for the use of survey weights and the hierarchical structure of the data with selection of children within families, communities and schools.

Furthermore, each model adjusts for the independent effects of the other variables in the model. Thus, for example, the association between school attendance and LORI can be separated from the association with main language spoken.

The results of the models are expressed in terms of odds ratios (see *Glossary*). The odds ratios are calculated relative to a reference category for each variable. For example, in the model describing school attendance and student variables, for Level of Relative Isolation the category 'None' (Perth metropolitan area) has been used as the reference category. Where students were living in areas of moderate relative isolation, the Odds Ratio was 2.29 (CI: 1.45–3.61). This can be interpreted as saying that students in areas of moderate isolation were 2.29 times more likely to have been absent from school for 26 days or more than students living in the Perth metropolitan area. The statistical significance of an odds ratio can be judged by whether the confidence interval includes the reference value of 1.00 (see *Appendix E – Reliability of Estimates* for more information on confidence intervals).

Where an odds ratio is less than one, it indicates a reduced level of risk. For example, the age group 4–7 years was chosen as the reference category for student's age. For students aged 8–11 years the Odds Ratio was 0.56 (CI: 0.42–0.74), indicating that these students were almost half as likely to be absent from school for 26 days or more than students aged 4–7 years. Alternatively, it can be said that the students were 1.79 times less likely to be absent from school for 26 days or more. The value of 1.79 is calculated by dividing the Odds Ratio of 0.56 into 1.



A multivariate logistic regression analysis was performed to model the probability of having an attendance ratio at or below 87.5 per cent, i.e. absent from school for 26 days or more (Table 4.22). The following student-related factors were found to be independently associated with being absent from school for 26 days or more in a school year.

**Language spoken in the playground.** Students who spoke Aboriginal English in the playground were over twice as likely (Odds Ratio 2.06; CI: 1.39–3.06) to have been absent from school for 26 days or more than students who spoke English in the playground. Students who spoke an Aboriginal language were nearly six times more likely (Odds Ratio 5.77; CI: 2.00–16.40).

**Risk of clinically significant emotional or behavioural difficulties.** Students assessed from teacher reports to be at high risk of clinically significant emotional or behavioural difficulties were twice as likely (Odds Ratio 1.98; CI: 1.42–2.76) as students at low risk of being absent from school for at least 26 days in the school year.

**Ever been in day care.** Students who had never been in day care were almost twice as likely (Odds Ratio 1.91; CI: 1.41–2.59) to have been absent from school for at least 26 days than students who had been in day care.

**Primary carer or partner needed to see school principal about problem student had at school.** Students whose carers had needed to see the school principal in the past six months because of problems the student was having at school were almost twice as likely (Odds Ratio 1.89; CI: 1.35–2.65) to have been absent from school for 26 days or more.

**Helping with school work at home.** Students who have no-one to help them with their school work were almost twice as likely (Odds Ratio 1.86; CI: 1.18–2.91) to have been absent from school for at least 26 days than those who were helped with their school work by someone within their household.

**Has trouble getting enough sleep.** Students who have trouble getting enough sleep were almost twice as likely (Odds Ratio 1.73; CI: 1.19–2.51) to be absent from school for at least 26 days in the school year than students who did not have trouble getting enough sleep.

**Overall academic performance.** Students with low academic performance were almost twice as likely (Odds Ratio 1.76; CI: 1.37–2.24) to be absent for at least 26 days in a school year than students whose overall academic performance was average or above average.

#### Student level factors not independently associated with school absence of 26 days or more

A number of other student level factors were tested and found not to be independently associated with poor school attendance. These included:

- ◆ physical health indicators such as poor vision and hearing, speech difficulties, asthma, dental caries, dietary quality, and antenatal and postnatal indicators such as substance use during pregnancy and breast feeding
- ◆ use of health services such as number of times seen a doctor or been in hospital
- ◆ contact with other support services such as disability services, and family and children's services
- ◆ carer's contact with school support services including a school psychologist, AIEO, class room teacher and the deputy principal
- ◆ carer assessed risk of clinically significant emotional or behavioural difficulties.



## CARER FACTORS

### Aboriginal status of primary carer

The majority of students in the survey had a primary carer who was Aboriginal. However for 15.5 per cent (CI: 13.3%–18.0%) of students, their primary carer was non-Aboriginal. For the majority (81.0 per cent; CI: 73.9%–86.7%) of these students their non-Aboriginal primary carer was also their birth mother (Table 4.23).

A strong association was found between being absent from school for 26 days or more and the Aboriginal status of the primary carer. For students with an Aboriginal primary carer, 54.3 per cent (CI: 51.0%–57.5%) were absent from school for 26 days or more during the school year. In contrast, for students whose primary carer was non-Aboriginal the proportion absent for 26 days or more was a considerably lower 27.3 per cent (CI: 21.3%–34.3%) (Table 4.24).

The median number of days absent from school for students whose primary carer was Aboriginal was 30 days (CI: 27–33). This was more than double the median number of days absent for Aboriginal students whose primary carer was not Aboriginal (14 days; CI: 11–16) (Table 4.4).

However, when the Aboriginal status of the carer was modelled against other carer related variables it was not found to be a significant predictor of being absent from school for 26 days or more.

### Whether primary carer forcibly separated from natural family

Until the 1970s, Aboriginal children were subject to laws, practices and policies that enabled the forced separation of children from their natural families. This separation took three general forms: putting children into government-run or church-run institutions; adoption; and fostering of children into non-Aboriginal families. The survey found that, of the estimated 10,400 Aboriginal primary carers in Western Australia, 12.3 per cent (CI: 10.6%–14.3%) had been forcibly separated from their natural family by a mission, the government or welfare.<sup>24</sup>

Poor school attendance was found to be associated with a student's primary carer having been forcibly separated from their natural family as a child. For many carers, the effects of this policy have been enduring and have been passed on to future generations. For some, growing up in institutions deprived them of the opportunity to acquire good parenting skills while the education provided was in most cases basic and limited to training for menial labour.<sup>25</sup>

The survey found that the proportion of students who had missed at least 26 days of school was significantly higher among students whose primary carer was forcibly separated from their natural family (69.0 per cent; CI: 59.6%–77.6%) than among those whose primary carer had not been separated (52.2 per cent; CI: 48.8%–55.7%) (Table 4.25).

The median number of days absent from school for students whose primary carer had been forcibly separated from their natural family was 43 days (CI: 32–58) compared with 27 days (CI: 24–30) days for students whose primary carer had not been forcibly separated (Table 4.4).



### Whether secondary carer forcibly separated from natural family

No association was found between the forced separation of the secondary carer (see *Glossary*) from their natural family and school non-attendance in their children.

### Primary carer has a limiting medical condition

Children may be absent from school as a consequence of their carer's ill health. They may either have to stay at home to care for their carer, or, if very young, have no-one to help them to get to school. Primary carers were asked whether they had any medical conditions which would last for 6 months or more. If so they were asked whether they were limited in doing normal daily activities because of their medical or health problem.

The proportion of students absent from school for 26 days or more was lower among students whose primary carer did not have a medical condition (47.0 per cent; CI: 43.4%–50.7%) than among students whose primary carer was limited in normal daily activities because of their medical condition (59.8 per cent; CI: 52.1%–67.3%). Among students whose primary carer had a non-limiting medical condition, 52.7 per cent (CI: 46.8%–58.5%) were absent from school for 26 days or more in the school year (Table 4.26).

### Carer education

The positive role models provided to children by parents or carers who have completed at least three years of secondary school may have some effect on school attendance. The survey found that the proportion of students who had missed at least 26 days of school was significantly higher among those students whose primary carers finished school before Year 10 (61.3 per cent; CI: 55.2%–67.1%) than among students whose primary carers had completed Year 10 (50.6 per cent; CI: 46.4%–54.8%), Years 11–12 (41.7 per cent; CI: 36.4%–47.0%) or who had gone on to post-school education (32.4 per cent; CI: 21.2%–44.2%) (Table 4.27).

### Carer labour force status

The proportion of students who had missed at least 26 days of school was significantly lower among students whose primary carer was employed (42.1 per cent; CI: 37.7%–46.7%) than students whose primary carer was unemployed (56.1 per cent; CI: 46.8%–64.9%) or not in the labour force (55.6 per cent; CI: 51.5%–59.5%) (Table 4.28).

### Carers ever arrested or charged with an offence

The proportion of students missing 26 days or more of school was significantly higher among students whose primary carer had ever been arrested or charged with an offence (56.1 per cent; CI: 51.4%–60.6%) than among students whose primary carer had not been arrested or charged (46.7 per cent; CI: 43.0%–50.5%) (Table 4.29). Where the primary carer was also the sole carer, the proportion absent from school for 26 days or more was 57.4 per cent (CI: 50.6%–63.9%). Where neither the primary carer or the secondary carer had been arrested or charged, the proportion of students absent from school for 26 days or more (42.2 per cent; CI: 36.8%–48.0%) was significantly lower (Table 4.30).

The median number of days absent for students whose primary carer had ever been arrested or charged, however, was not significantly different from that of students whose primary carer had never been arrested or charged (31 days; CI: 26–36 compared with 24 days; CI: 21–27) (Table 4.4).



## Modelling the association between school attendance and carer factors

A multivariate logistic regression analysis was performed and it was found that, when carer factors were controlled, the following carer factors were independently associated with the student being absent from school for at least 26 days (Table 4.31).

**Primary carer forcibly separated from natural family.** Students whose primary carer had been forcibly separated from their natural family were over one and a half times more likely (Odds Ratio 1.75; CI: 1.19–2.56) to have been absent for at least 26 days in a school year than students whose primary carer had not been forcibly separated.

**Primary carer highest level of education.** Students whose carers had been educated to Years 11 or 12 were one and a half times less likely (Odds Ratio 0.65; CI: 0.49–0.87) to have been absent from school for 26 days or more than students whose carers left school after Year 10. Similarly, students whose carers had been educated for 13 years or more were over one and a half times less likely (Odds Ratio 0.57; CI: 0.34–0.96) to have been absent from school for 26 days or more.

**Primary carer labour force status.** Students whose primary carers were either unemployed or not in the labour force were over one and a half times more likely (Odds Ratio 1.61; CI: 1.09–2.38 and Odds Ratio 1.73; CI: 1.34–2.24 respectively) to have missed at least 26 days of school than students whose primary carers were employed.

**Primary carer ever arrested.** Students whose primary carer had ever been arrested or charged with an offence were one and a half times more likely (Odds Ratio 1.45; CI: 1.14–1.85) to have missed at least 26 days of school than students whose primary carers had never been arrested or charged.

**Primary carer attended an Aboriginal funeral in the past 12 months.** Students whose primary carers had attended an Aboriginal funeral were one and a half times more likely (Odds Ratio 1.57; CI: 1.19–2.06) to have been absent from school for 26 days or more.

**Main language spoken.** Students whose primary carer spoke Aboriginal English as their main language were four times more likely (Odds Ratio 4.04; CI: 1.30–12.40) to have been absent from school for 26 days or more and three times more likely (Odds Ratio 2.62; CI: 1.22–5.64) if their carer spoke an Aboriginal language.

## Carer level factors not independently associated with school absence of 26 days or more

The following carer level factors were found not to be associated with attendance at school included:

- ◆ Aboriginal status of the primary carer
- ◆ primary carer's involvement in cultural activities such as festivals and Aboriginal organisations
- ◆ whether the primary carer had a limiting health condition.

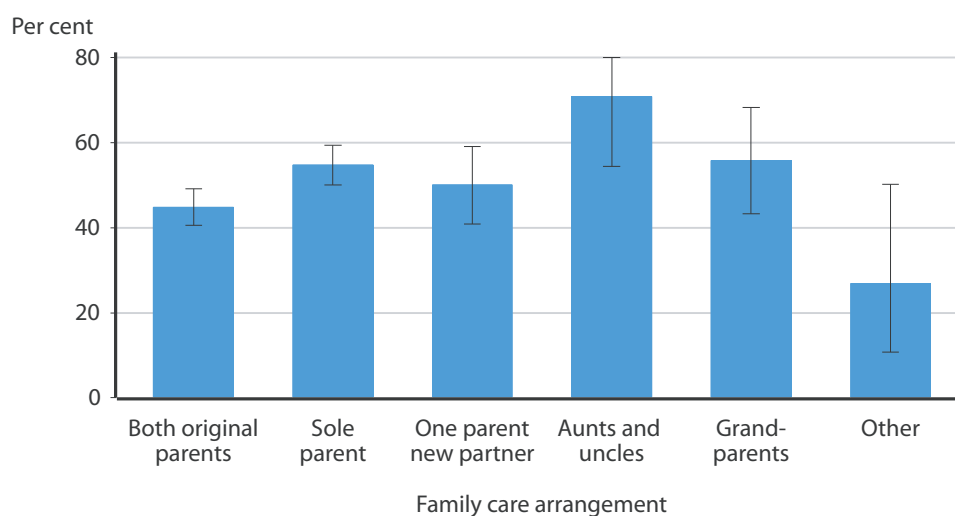


## FAMILY AND HOUSEHOLD FACTORS

### Family care arrangement

An association was found between poor school attendance and family care arrangement. The proportion of students who had missed at least 26 days of school was higher among those students cared for by a sole parent (54.8 per cent; CI: 50.1%–59.4%) and those cared for by aunts and uncles (70.8 per cent; CI: 54.5%–83.9%) than among those students cared for by both original parents (44.8 per cent; CI: 40.6%–49.1%) (Figure 4.8).

**FIGURE 4.8:** STUDENTS AGED 4–17 YEARS — PROPORTION ABSENT FROM SCHOOL FOR 26 DAYS OR MORE, BY FAMILY CARE ARRANGEMENTS



Source: Table 4.32

### Family functioning

A nine-item scale was used to measure the extent to which families have established an environment of cooperation, emotional support and good communication. Ratings from scores provided by the carers were summed to produce an overall score with categories labelled 'very good', 'good', 'fair' and 'poor' family functioning (see *Glossary*). In families with very good functioning, the proportion of students away from school for at least 26 days was slightly lower than for students in families with poor family functioning (43.9 per cent; CI: 38.9%–49.0% compared with 54.9 per cent; CI: 48.6%–61.4%). However, this difference did not reach statistical significance (Table 4.33).

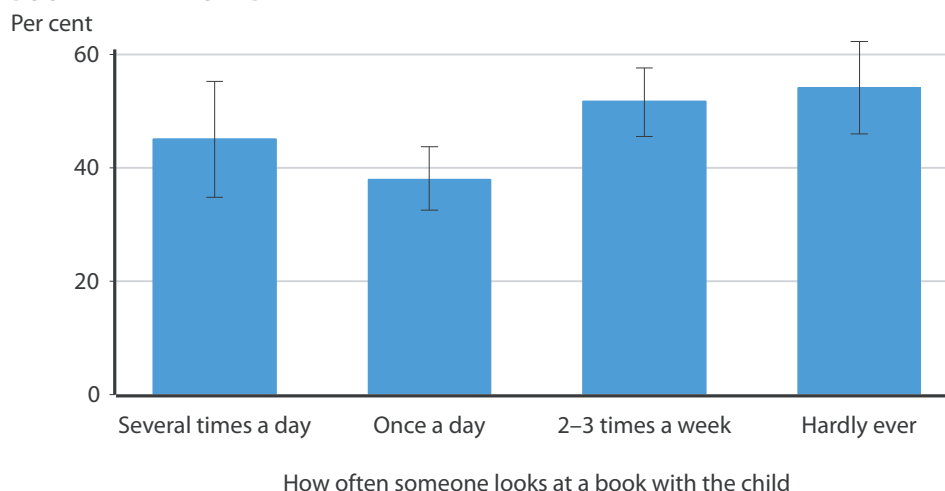
### Reading books with child at home

Primary carers of 4–11 year-olds were asked 'at home, how often does someone from this house look at a book with the student'. Figure 4.9 shows that the frequency of reading a book with the student at home was associated with school attendance. The proportion of 4–11 year-old students who were absent from school for 26 days or more in the school year was significantly higher among those who had hardly ever had a book read with them (54.2 per cent; CI: 46.0%–62.3%) than among those who had a book read with them once a day (38.0 per cent; CI: 32.6%–43.8%). There was no significant difference between those who were read to once a day and those who were read to several times a day.





**FIGURE 4.9:** STUDENTS AGED 4–11 YEARS — PROPORTION ABSENT FROM SCHOOL FOR 26 DAYS OR MORE, BY HOW OFTEN SOMEONE FROM THE HOUSEHOLD LOOKS AT A BOOK WITH THE CHILD



Source: Table 4.34

4

Life stress events

**LIFE STRESS EVENTS**

The number of stressful life events that occur in a single period can impact on a family’s ability to cope. While most people are able to cope with a single stressful event, when multiple stressful or traumatic events occur simultaneously it can become more and more difficult to cope.

Primary carers were asked if any of fourteen major life stress events had occurred in the family in the preceding 12 months. These events included illness, hospitalisation or death of a close family member, family break-up, arrests, job loss and financial difficulties.

For analysis, the number of life stress events in the previous 12 months were grouped as follows: 0–2, 3–4, 5–6 and 7–14, with each category containing approximately one quarter of survey children.

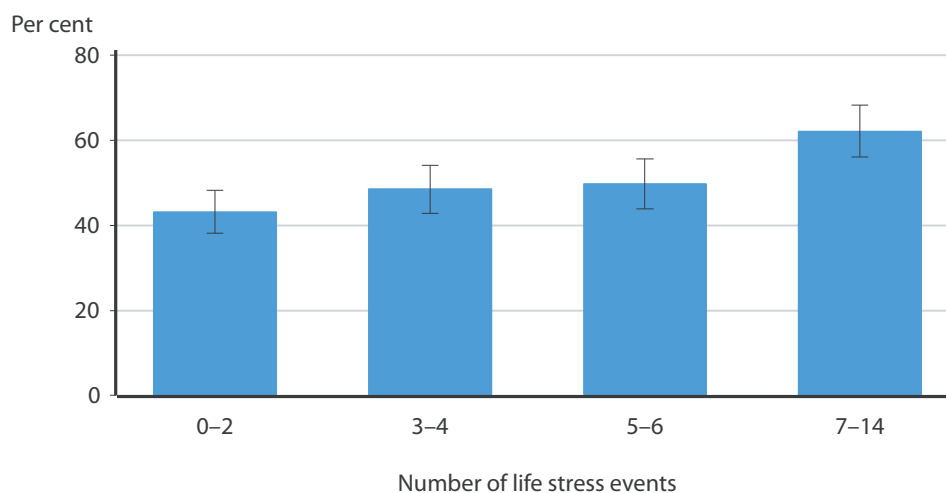
Previous Western Australian research has suggested that three or more life stress events in one 12 month period may be a risk factor for a range of problems. Over 20 per cent of Aboriginal children were found to be living in families where 7–14 major life stress events had occurred over the preceding 12 months. These children were five and a half times more likely to be at high risk of clinically significant emotional or behavioural difficulties than children in families where fewer than three life stress events had occurred.<sup>23</sup>

Details of the life stress events measured in the survey can be found in *Appendix C — Measures derived from multiple responses and scales* in Volume Two — *The Social and Emotional Wellbeing of Aboriginal Children and Young People*.



Poor school attendance increased with the number of life stress events experienced in the family (Figure 4.10). Over one in five students (22.0 per cent; CI: 19.9%–24.2%) aged 4–17 years were living in families where 7–14 major life stress events had occurred in the past 12 months. Of these students, 62.2 per cent (CI: 56.1%–68.3%) had missed at least 26 days of school compared with 43.1 per cent (CI: 38.2%–48.2%) of students in families that had experienced no more than 2 life stress events.

**FIGURE 4.10:** STUDENTS AGED 4–17 YEARS — PROPORTION ABSENT FROM SCHOOL FOR 26 DAYS OR MORE, BY NUMBER OF LIFE STRESS EVENTS EXPERIENCED BY THE FAMILY IN THE LAST 12 MONTHS



Source: Table 4.35

### Financial strain

Primary carers were asked to describe their family's money situation in terms of five possible responses: 'we are spending more money than we get', 'we have just enough money to get through to next pay day', 'there is some money left over each week but we spend it', 'we can save a bit every now and again' and 'we can save a lot'. When analysed against school attendance, no association was found (Table 4.36).

### Overuse of alcohol causing problems in the household

Primary carers were asked 'does overuse of alcohol cause problems in this household?' The proportion of students who had missed at least 26 days of school was higher among students living in families where overuse of alcohol caused problems in the household (59.4 per cent; CI: 50.4%–67.4%) than among students living in households without these problems (48.4 per cent; CI: 45.3%–51.5%) (Table 4.37).

### Home ownership

There was a strong association with home ownership and whether students missed 26 days or more of school in the school year. The proportion of students living in rented accommodation who were absent from school for at least 26 days was almost double (55.8 per cent; CI: 52.5%–59.0%) that of students living in accommodation either owned or being paid off (31.9 per cent; CI: 25.8%–38.4%). This effect was observed only in the Perth metropolitan area and areas of low isolation (Table 4.38).



### Household occupancy level

There was an association between poor school attendance and high household occupancy level. Households with a high occupancy level are those where the number of people who usually sleep at the dwelling exceeds the number of bedrooms in the dwelling plus three. For example, if a house has three bedrooms, it is considered to have high occupancy if more than six people usually sleep there (see *Glossary*). The proportion of students who had missed at least 26 days of school was significantly higher among those living in households with a high occupancy level (58.3 per cent; CI: 52.6%–63.9%) than for students in households with a low occupancy level (47.2 per cent; CI: 43.9%–50.5%) (Table 4.39).

### Number of homes lived in and number of primary schools attended

The mobility of Aboriginal households is reported to be a major cause of absence from school by Aboriginal children.<sup>2</sup> As well as moving from one school to another more frequently than non-Aboriginal students, Aboriginal students, particularly in traditionally oriented remote communities, may necessarily be absent from their regular schools for lengthy periods of time due to cultural and social obligations.<sup>2</sup>

However, the survey found no difference in the proportion of students who had at least 26 days of absence from school regardless of whether they had attended one, two or three or more primary schools since starting school. Nor was there any significant difference between those who had lived in five or more homes and those who had lived in less than five homes (Table 4.40).

### Modelling the association between school attendance and family and household factors

A number of family and household factors were modelled to assess whether they were independently associated with absence from school for 26 days or more in a school year. After controlling for Level of Relative Isolation, age and sex, the following factors were found to be significant (Table 4.41).

**Family care arrangement.** Students were more likely to have been absent from school for 26 days or more if they were cared for by aunts and uncles (Odds Ratio 2.05; CI: 1.17–3.57) or a sole parent (Odds Ratio 1.34; CI: 1.02–1.74) than if cared for by both original parents.

**Home ownership.** Students who lived in rented accommodation were over twice as likely (Odds Ratio 2.38; CI: 1.77–3.20) to be absent from school for 26 days or more than students who lived in accommodation that was owned outright or being paid off.

**Number of life stress events.** Students in families where seven or more life stress events were experienced in a year were more likely to have been absent from school for 26 days (Odds Ratio 2.25; CI: 1.61–3.16) than students in families where the number of life stress events was fewer than three.

**How often someone from the household looks at a book with the student.** Relative to students who were read to at home once a day, students who had a book read to them by someone in the household either 2–3 times a week or hardly ever, were more likely to be absent from school for 26 days or more (Odds Ratio 1.59; CI: 1.14–2.22 and Odds Ratio 1.87; CI: 1.27–2.74 respectively).



## Family and household level factors not independently associated with school absence of 26 days or more

Family and household related factors that were modelled and found not to be associated with being absent from school for 26 days or more included:

- ◆ family functioning
- ◆ household occupancy level
- ◆ mobility factors such as number of schools attended and number of homes lived in since birth
- ◆ overuse of alcohol causing problems in the household
- ◆ family financial strain.

## SCHOOL FACTORS

It has been suggested that high levels of school non-attendance may be an indication of a dysfunctional relationship between school and the students.<sup>6</sup> Examples of school factors that may influence absenteeism include the school environment, the proportion of Aboriginal students in the school, the socioeconomic status of families served by the school, level of understanding of Aboriginal culture by teachers and staff, relevance of the education environment, teacher training, staff attitudes and expectations, relationships between staff and carers and the community, school discipline policies and curriculum issues.<sup>2</sup>

### Category of school

Although the number of Aboriginal students attending Independent schools is low, the proportion of students at these schools who were absent at least 26 days of school (22.7 per cent; CI: 10.6%–37.6%) was significantly lower than for students in Government or Catholic schools (51.0 per cent; CI: 47.8%–54.1% and 50.1 per cent; CI: 41.4%–58.6% respectively). In Aboriginal community governed schools, almost half (48.7 per cent; CI: 27.2%–72.8%) of the students had missed at 26 days or more of school in the school year (Table 4.42).

### Proportion of students who are Aboriginal

Poor school attendance increased as the proportion of Aboriginal students in the school student population increased. In schools where Aboriginal students represented less than 10 per cent of the school population, 39.7 per cent (CI: 34.8%–44.9%) were absent for at least 26 days in a school year. This rose to 62.1 per cent (CI: 53.6%–69.6%) in schools where 90 per cent or more of the students were Aboriginal (Table 4.43).

### Student to teacher ratio

The proportion of students who were absent from school for 26 days or more tended to increase as the ratio of students to teachers decreased. In schools where there were 20 or more students per teacher, 37.6 per cent (CI: 30.7%–45.2%) of students were absent for 26 days or more. This compares with 56.0 per cent (CI: 51.3%–60.8%) of students in schools where there were 10–15 students per teacher and 59.1 per cent (CI: 51.1%–66.4%) in schools where there were less than 10 students per teacher (Table 4.44).



### Teachers new to teaching

The survey found no association between the proportion of teachers new to teaching and absence from school for 26 days or more during a school year (Table 4.45).

### Professional Development and curriculum activities

School principals were asked whether their school had implemented a selection of Professional Development and curriculum activities. These included:

- ◆ *Our Story* – Aboriginal Cultural Awareness Training for the Education Sector
- ◆ *FELIKS* – Fostering English Language in Kimberley Schools
- ◆ *ABC of Two Way Literacy and Learning*
- ◆ *Deadly Ways to Learn*
- ◆ *Time for Talk*
- ◆ Aboriginal Studies (across the curriculum)
- ◆ *Aboriginal Studies* (discrete unit or course)
- ◆ *Do You Hear What I Hear* – Otitis media
- ◆ Other PD or developing culturally inclusive curricula.

For further information about these activities, see Chapter 3. In all instances where these activities were implemented, the proportion of children absent for at least 26 days was lower than in schools where no such activities were implemented.

However, a statistically significant association was found between poor school attendance and only three of these programmes: *ABC of Two Way Literacy and Learning*, *Deadly Ways to Learn*, and Aboriginal Studies (across the curriculum). For example, in schools where Aboriginal Studies (across the curriculum) was implemented, 34.7 per cent (CI: 27.3%–42.4%) of students were absent for 26 days or more compared with 52.7 per cent (CI: 49.3%–56.0%) in schools where the programme was not implemented (Tables 4.46).

While only three curriculum activities had a statistically significant association with absence from school of 26 days or more, the relationships between the remaining activities and absence from school were close to being statistically significant.

When the implementation of *ABC of Two Way Literacy and Learning*, *Deadly Ways to Learn*, and Aboriginal Studies (across the curriculum) were modelled against other school variables, they were not found to be independent predictors of students being absent from school for 26 days or more.

### Aboriginal language taught at the school

In schools where an Aboriginal language was taught, the proportion of students who were absent for 26 days or more (58.9 per cent; CI: 53.5%–64.0%) was significantly higher than in schools where an Aboriginal language was not taught (46.5 per cent; CI: 42.9%–50.0%). No association was found by Level of Relative Isolation (Table 4.47).



## Aboriginal and Islander Education Officers (AIEOs)

### ABORIGINAL AND ISLANDER EDUCATION OFFICERS (AIEOs)

AIEOs (government schools) and ATAs (Catholic schools) are employed in schools to provide support and assistance to Aboriginal students, carers, teachers and the school community through their knowledge, understanding and sharing of Aboriginal history, language and culture. The role of the AIEO is designed to help ease the barriers to educational outcomes that Aboriginal students may encounter in the education system. As such, they can have an important influence on the behaviour and performance of Aboriginal students.

In the government school system, the allocation of AIEOs is currently based on a formula which takes account of the size of the Aboriginal student population, the year that these students are enrolled in, and the level of social disadvantage in the school community.

#### Previous AIEO allocation

At the time of the survey, AIEOs were funded and allocated by the then Aboriginal Education Directorate as a result of a school making a direct application for AIEO resources. This process led to a number of issues, including the perception that an inequitable distribution of resources did not allow the needs of Aboriginal students to be fully met. A new method for allocating AIEO resources has subsequently been introduced.

#### Current AIEO allocation formula

Allocation of AIEO staff to schools is now made using a formula-based approach. The AIEO formula used by DET in government schools takes account of:

- ◆ the number of Aboriginal students enrolled in a school
- ◆ the year at school of each Aboriginal student. Year level multipliers vary from 0.6 to 1.6, with the higher multiplier being applied to Aboriginal students enrolled in the year levels where they are considered to be most at risk
- ◆ social disadvantage, as measured by the Socioeconomic Index for Schools (SEI) (see *Glossary*).

At the time of the survey, most AIEOs were paid as either Level 1 or Level 2 teacher aides but, as of 2004, are now all paid as Level 3 staff. This has improved retention and recruitment of AIEOs.

The survey found that in Western Australian schools where there was an AIEO, 54.9 per cent (CI: 51.7%–58.1%) of students were absent from school for at least 26 days compared with 36.1 per cent (CI: 30.4%–42.2%) of students in schools where there was no AIEO (Table 4.48).

Current allocation practices have changed since the survey and are now based on a formula that takes into account the ratio of Aboriginal students in the school and the socioeconomic level of the school. The relationships between these factors and the



presence of an AIEO in the school and their association with being absent from school for 26 days or more were also analysed.

**Proportion of students who are Aboriginal.** Regardless of the proportion of Aboriginal students in the school, the proportion absent from school for 26 days or more was higher in schools that have an AIEO. This was significant only in schools where Aboriginal students comprised less than 10 per cent of the total student population (48.2 per cent; CI: 41.3%–54.8% of students in schools with an AIEO compared with 30.8 per cent; CI: 24.2%–38.2% in schools with no AIEO) (Table 4.48).

**Socioeconomic status of the school.** Across all quartiles of the Socioeconomic Index for schools (SEI) (see *Glossary*), the proportion of students absent from school for 26 days or more was higher in schools where there was an AIEO. This was only significant within the third quartile where 55.7 per cent (CI: 49.1%–62.1%) of students in a school with an AIEO were absent for 26 days or more compared with 27.4 per cent (CI: 16.5%–41.6%) in schools with no AIEO (Table 4.49).

The results of these bivariate analyses were confirmed during the modelling process which showed that the likelihood of being absent from school for 26 days or more was increased in schools with both a high SEI and an AIEO (Table 4.56).

4

#### Learning, teaching and support programmes for Aboriginal students

School principals were asked a series of questions about the adequacy of the learning, teaching and support programmes for Aboriginal students. Principals rated on a scale of 1 (inadequate) to 7 (fully adequate) the adequacy of the following school activities and learning programmes, parent involvement and teacher support in their school:

- ◆ learning and teaching programmes for Aboriginal students
- ◆ teacher support arrangements for teaching Aboriginal students
- ◆ behaviour management programme for Aboriginal students
- ◆ involvement of Aboriginal parents in school activities and their children's learning
- ◆ school support to Aboriginal parents
- ◆ planning in making provision for Aboriginal education.

These factors were combined into a composite variable comprising four quartiles of an index of school principals assessment of learning, teaching and support services (see *Appendix C* and *Chapter 3*).

School-based factors such as these are potentially important influences on alienation and absence from school. Changing the atmosphere of schools has been suggested as an appropriate way of improving school attendance.<sup>2</sup> However the survey found no association between principals' assessments of learning, teaching and support services for Aboriginal students and school attendance (Table 4.50).

#### Aboriginal Student Support and Parent Awareness Committee (ASSPA)

At the time of the survey, ASSPA committees were in operation in some schools. The aim of these committees was to stimulate community involvement in schools. This initiative has since been replaced by a Whole of School Intervention Strategy, which incorporates elements such as the Parent School Partnerships Initiative (PSPI).



While the proportion of students who were absent from school for at least 26 days in a school year was higher in schools that had an ASSPA than schools with no ASSPA, the difference was not significant (51.4 per cent; CI: 48.3%–54.3% compared with 35.9 per cent; CI: 24.7%–49.6%) (Table 4.51).

### Community poverty

The socioeconomic background of Aboriginal children has been considered a factor affecting school attendance.<sup>6</sup> School principals were asked to rate the degree that poverty affects children attending their school. This was done using a seven point scale which ranged from 1 (no poverty) to 7 (extreme poverty).

The survey found that as the degree of poverty increased, the proportion of students who had missed at least 26 days of school also increased, ranging from 38.7 per cent (CI: 15.2%–64.6%) in schools where students were not affected by poverty to 62.3 per cent (CI: 45.6%–76.4%) in schools where the effect of poverty on the students was extreme. However, none of these differences were significant (Table 4.52).

### Socioeconomic status of the school

Being absent from school for 26 days or more was also analysed across quartiles of the school SEI. The only notable difference across the quartiles of SEI in levels of attendance was between the lowest and second quartiles. In the lowest quartile, 57.1 per cent (CI: 50.5%–63.3%) of students were absent for at least 26 days compared with 43.0 per cent (CI: 37.4%–49.0%) in schools in the second quartile (Table 4.53).

### Carer satisfaction with the job the school is doing

Carers were asked to rate how happy they were with the job the school was doing on a scale of 1 (very unhappy) to 5 (very happy). The proportion of students who had missed 26 days or more of school was significantly higher among those whose carer was 'neither unhappy nor happy' (61.3 per cent; CI: 50.5%–71.9%) than those who were 'very happy' (47.0 per cent; CI: 43.5%–50.5%) (Table 4.54).

### School suspension

The proportion of students who had been absent from school for 26 days or more during a school year was higher among students who had been suspended than among those who had not been suspended. Over two-thirds (67.9 per cent; CI: 60.4%–75.2%) of students who had been suspended during the year had at least 26 days of absence from school. Among students who had not been suspended, the corresponding proportion was less than half (48.6 per cent; CI: 45.5%–51.6%) (Table 4.55).

### Modelling the association between school attendance and school factors

Data modelling of school factors showed that, after controlling for Level of Relative Isolation, age and sex, the following school factors were independently associated with being absent from school for 26 days or more (Table 4.56):

**Proportion of students who are Aboriginal.** In schools where Aboriginal students comprise at least 90 per cent of the student population, the likelihood of being absent from school for 26 days or more was over three times (Odds Ratio 3.10; CI: 1.45–6.59) that of students in schools where the proportion of Aboriginal students was less than





10 per cent. In schools where the proportion of Aboriginal students was between ten and ninety per cent, students were over twice as likely (Odds Ratio 2.05; CI: 1.37–3.09) to have been absent for 26 days or more.

**Aboriginal and Islander Education Officer (AIEO) at the school.** Students in schools where there was no AIEO were two times less likely (Odds Ratio 0.52; CI: 0.37–0.73) to be absent from school for at least 26 days in a school year than students in schools where there was an AIEO.

**Socioeconomic status of Government schools.** Students attending Government schools in the highest quartile of the school Socioeconomic Index were over twice as likely (Odds Ratio 2.27; CI: 1.32–3.92) to have been absent for at least 26 days than students in the lowest quartile.

**Carer satisfaction with the job the school is doing.** Students whose carers were neither unhappy nor happy with the job the school was doing were over twice as likely (Odds Ratio 2.27; CI: 1.34–3.85) to have been absent from school for at least 26 days than students whose carers were very happy with the school.

#### School level factors not independently associated with school absence of 26 days or more

A number of other school-related factors were modelled and found not to be independently associated with absence from school of 26 days or more. These included:

- ◆ the implementation of Professional Development and curriculum activities i.e. *Our Story*, *FELIKS*, *ABC of Two Way Literacy and Learning*, *Deadly Ways to Learn*, *Time for Talk*, Aboriginal studies (across the curriculum or as a discrete unit) and *Do You Hear What I Hear*
- ◆ whether the school taught an Aboriginal language
- ◆ whether the school had an Aboriginal Student Support and Parent Awareness Committee (ASSPA)
- ◆ student to teacher ratio
- ◆ proportion of teachers new to teaching.

#### EXAMPLES OF STRATEGIES USED TO INCREASE ATTENDANCE AT SCHOOL

The level of school attendance among Aboriginal children remains significantly lower than for the general population. This is not to say however that improvements have not been made or that no effective strategies have been implemented. Many strategies have been implemented in schools and effective results have been obtained at the local level. These strategies have generally been developed in individual schools as the following case studies show. The general principles that underpinned the most successful strategies included home visits and community liaison, emphasis on personal contact with consistent follow-up where absence occurred, personal planning and goal-setting as well as use of alternative settings that became 'home' for the students involved for part of the week.<sup>26,27</sup>

*Continued . . .*



**EXAMPLES OF STRATEGIES USED TO INCREASE ATTENDANCE AT SCHOOL** *(continued)***The Gumala Mirnuwarni project**

The Gumala Mirnuwarni project (a partnership of the Rio Tinto mining company, governments, schools and community) is an example of students, families, schools and the community working together to improve educational outcomes for Aboriginal students and to consequently improving employment opportunities. One positive impact has been improved school attendance rates. Before the commencement of the project, the absentee rate for Aboriginal students was about four times that of non-Aboriginal students in the same region. The drop out rate was high and very few students reached Year 12.

The key values of the project are family involvement and support as well as traditional knowledge and culture. The main targets for the project are students who have demonstrated that they want to succeed.

The project has resulted in improved school attendance rates and outcomes. After four years, at the end of 1999, the rate of absence for Project students was half that of other Aboriginal students in the region and no more than double that of non-Aboriginal students.

Strategies included Education Enrichment Centres, an Aboriginal Tutorial Assistance Scheme (ATAS), assignment of school based mentors for each student, cultural awareness workshops for the school staff and family support for students. Extra curricular activities were also arranged to develop confidence and abilities including visits to industry and education facilities, cultural awareness camps and self-esteem and learning workshops. The project had a low profile and no publicity, and cooperated to achieve agreed goals.

After two years of operation, three Karratha High School students gained University entrance in 1999 compared with only one for the previous 10 years. Increased family involvement in the education of students has had a positive influence, and students, teachers and families have a more positive attitude as a result of the project.<sup>28</sup>

**Carnarvon Primary School – Positive Incentive Program (PIP)**

Concern about low school achievement, bad behaviour and low school attendance prompted Carnarvon Primary School to introduce the Positive Incentive Program (PIP). This programme was developed with staff involvement and was aimed at creating a positive school environment. Under this programme, students gained points for good behaviour, academic achievement and community or citizenship involvement. The programme resulted in an 80 per cent drop in misbehaviour at school and increased involvement of parents at school functions. Lunchtime clubs involving students and teachers were also introduced and helped to increase the self-esteem and school attendance of students.<sup>2</sup>

*Continued . . . .*

## EXAMPLES OF STRATEGIES USED IN THE SCHOOL TO INCREASE ATTENDANCE *(continued)*

### Badu Island State Primary School

A very high attendance rate of 95 per cent at the Badu Island State Primary School has been attributed to the school being one which provides a safe and friendly environment for the students, has an open door policy involving the community in the school activities, and adaptation of the school curricula to incorporate cultural activities and improve literacy and numeracy skills. For example, the school meets the expenses of parents if they accompany their children on school excursions.<sup>2</sup>

### Cherbourg State School

Tackling poor attendance was one element of the ‘Strong and Smart’ programme implemented at the Cherbourg State School in Queensland. In the overall strategy to improve outcomes for Aboriginal students at Cherbourg, the principal set about changing the culture of the school, raising the expectations of the students, their families and teachers and encouraging involvement of the community in the school. The first step involved the school principal working closely with the community to build a strong relationship and a shared set of community values and expectations for children attending the school.

The school worked closely with the community on the issues of attendance and performance in school. Good attendance was made a matter of public record with classes reporting to the school each week and rewards given for the best attendance record. As a consequence, attendance at the school improved from 50 per cent regular attendance in 1997 to 95 per cent in 2002.<sup>29</sup>

### Summary

These are just a few examples of programmes that have been implemented and shown to have some effect in improving Aboriginal attendance at school. The Australian government has commissioned analysis of special projects conducted under the Indigenous Education Strategic Initiatives Programme (IESIP), which has been published in *What Works*,<sup>26,27</sup> as well as promoted via the *What Works* web site.

## MODELLING THE ASSOCIATION BETWEEN SCHOOL ABSENCE AND COMBINED DEMOGRAPHIC, STUDENT, CARER, FAMILY AND SCHOOL FACTORS

After modelling for student, carer, family and school factors separately, the outcomes for each were combined into one final model. The following factors were found to be independently associated with absence from school of 26 days or more (Table 4.57):

**Age.** Students aged 8–11 years were over one and a half times less likely (Odds Ratio 0.53; CI: 0.40–0.71) than 4–7 year-olds to be absent for at least 26 days.

**Language spoken in the playground.** Students who spoke an Aboriginal language at school were over six times more likely (Odds Ratio 6.09; CI: 2.20–16.80) than English speaking students to be absent from school for 26 days or more. Students who spoke Aboriginal English were almost twice as likely (Odds Ratio 1.98; CI: 1.31–2.99) to have poor school attendance.



**Ever been in day care.** Students who had never been in day care were found to be one and a half times more likely (Odds Ratio 1.57; CI: 1.16–2.14) than students who had been in day care to have been absent from school for at least 26 days in a school year.

**Has trouble getting enough sleep.** Students who had trouble getting enough sleep were over one and a half times as likely (Odds Ratio 1.75; CI: 1.19–2.56) to have missed 26 days or more of school.

**Overall academic performance.** The likelihood of students being absent for 26 days or more was significantly higher if their overall academic performance was rated as low (Odds Ratio 1.63; CI: 1.27–2.09).

**Risk of clinically significant emotional or behavioural difficulties.** Students assessed from teacher reports to be at high risk of clinically significant emotional or behavioural difficulties were over one and a half times as likely (Odds Ratio 1.76; CI: 1.25–2.46) to have been absent from school for 26 days or more than students at low risk.

**Primary carer or partner needed to see school principal about problem student had at school.** Students whose carers had needed to see the school principal were almost twice as likely (Odds Ratio 1.80; CI: 1.28–2.53) to have been absent from school for 26 days or more than students whose carers had not needed to see the school principal.

**Primary carer level of education.** Students whose primary carers had completed Years 11–12 were one and a half times less likely (Odds Ratio 0.71; CI: 0.53–0.95) than students who had only completed school to Year 10 to have missed 26 days or more of school during the school year.

**Primary carer labour force status.** Students were one and a half times more likely (Odds Ratio 1.53; CI: 1.18–1.99) to have been absent from school for 26 days or more if their primary carer was not in the labour force (i.e. was not employed and was not looking for employment).

**Home ownership.** Students living in rented accommodation or other accommodation were twice as likely (Odds Ratio 1.95; CI: 1.45–2.64 and Odds Ratio 2.02; CI: 1.01–4.05 respectively) to have been absent for 26 days or more than students living in homes that were either owned or being paid off.

**How often someone from the household looks at a book with the student.** Students aged 4–11 years who had someone from their house look at a book with them less than once a day were more likely to have been absent from school for 26 days or more. Where a book was looked at 2–3 times a week, the Odds Ratio was 1.53 (CI: 1.09–2.15) and where a book was hardly ever looked at, the Odds Ratio was 1.56 (CI: 1.05–2.30).

**Number of life stress events.** The likelihood of 26 days or more of absence from school was almost doubled among students in families where at least 7 life stress events had been experienced during the year (Odds Ratio 1.90; CI: 1.34–2.68) compared with those in families with less than 3 life stress events.

**Proportion of students who are Aboriginal.** Aboriginal students in schools where the proportion of Aboriginal students ranged from 10 per cent to 90 per cent were over one and a half times as likely (Odds Ratio 1.71; CI: 1.15–2.55) to have been absent from school for 26 days or more than Aboriginal students in schools where the proportion of Aboriginal students was less than 10 per cent.



**Aboriginal and Islander Education Officer (AIEO) at the school.** Students attending schools that did not have an AIEO were almost two times less likely (Odds Ratio 0.55; CI: 0.39–0.78) to have been absent from school for 26 days or more than students in schools with an AIEO.

**Socioeconomic status of schools.** Students at schools ranked in the highest quartile of the school SEI were almost three times more likely (Odds Ratio 2.82; CI: 1.66–4.79) to have been absent from school for 26 days or more than students in schools ranked in the lowest quartile of school SEI.

#### THE ROLE OF THE ABORIGINAL AND ISLANDER EDUCATION OFFICER (AIEO)

Since 1972 the Western Australian education system has provided support to schools with Aboriginal students in the form of AIEOs. These officers have provided a range of services under often difficult and challenging circumstances.

Empirical analysis suggests that Aboriginal student attendance does not benefit from the presence of an AIEO in the school. Indeed, Aboriginal students were more likely to miss larger numbers of days from school where schools had an AIEO. Also, as will be seen in Chapter 6, there is no association between the presence or absence of an AIEO in schools and the academic performance of Aboriginal students.

While it is generally claimed that AIEOs are made available to schools with high need or disadvantage and thus a negative association between AIEO support and attendance might be expected, these findings have been adjusted for all of the measures of disadvantage that are used in the allocation of AIEOs within state government schools. There was a negative association between the presence of AIEOs in a school and the attendance of Aboriginal students, additional to the effects of relative isolation, school Socioeconomic Index (SEI) and proportion of Aboriginal students in the school. This makes the finding of a substantial negative association between AIEO support and school performance of particular concern.

There are several reasons why poor attendance may be associated with AIEOs support. Firstly, the presence of AIEOs in a school does not necessarily imply the school has an inclusive culture. Indeed, the school may delegate responsibility for dealing with problems of attendance and performance of Aboriginal students specifically to AIEOs, where these problems would be the responsibility of all staff in schools without AIEOs. AIEOs are being required or expected to provide support to Aboriginal students in circumstances where it is unrealistic to expect benefit without the wider support of the school and education system, parents and communities. Second, the support provided by AIEOs is not principally of an educational nature – nor is it perhaps necessarily intended that it be so. This means that the benefit of AIEOs may not best be judged from the perspective of the school performance of the child. Third, the qualification and skill levels of AIEOs may require substantial improvement and staff development in order to fulfil the duties. Fourth, their role and duties generally may require greater definition and focus to produce more desirable and measured effect.

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### THE ROLE OF THE ABORIGINAL AND ISLANDER EDUCATION OFFICER (AIEO) *(continued)*

Whatever the basis for the large negative association between student attendance and AIEO support, these findings suggest that:

- ◆ the presence of an AIEO in a school must be accompanied by substantial system and school changes in addressing the needs of Aboriginal students — the presence of an AIEO is not a substitute for this
- ◆ a significant opportunity exists to reconsider the role and duties of AIEOs and their overall professional development
- ◆ training and support of AIEOs to give this position an educational focus is essential.

### IDENTIFYING A LEVEL OF ABSENCE THAT PLACES STUDENTS AT EDUCATIONAL RISK

Previous research has suggested that absence from school for one full day per week (i.e. 20 per cent or more days absent) will significantly disrupt a student's education.<sup>30</sup> However, analysis of the survey data did not support the use of this criterion for identifying students at risk. In fact, as is shown later in this chapter, academic performance declines systematically with any absence from school. For this reason, it was decided not to use the 20 per cent cut-off in the analysis of the survey data. So far, the median attendance at school (87.5 per cent) has been used as a cut-off point for bivariate analysis and modelling. To determine what impact this choice may have, two additional models have been fit. The first model predicts the likelihood of a student being absent from school for more than 63 days per year (i.e. in the bottom 20 per cent of school attendance with an attendance ratio of 69.7 per cent). The second model predicts the likelihood of a student being absent from school less than nine days per year (i.e. in the top 20 per cent attendance with an attendance ratio of 95.7 per cent).

Results of the first model looking at extreme levels of absence from school (absent more than 63 days) are shown in Table 4.58. Comparing these results with the model predicting below median levels of attendance at school shown in Table 4.57, it can be seen that essentially the same set of factors are associated with both below median and extreme levels of absence from school. However, there are some differences. Whether the student has problems getting enough sleep, or whether the student's carer or partner has needed to see the school principal in the past six months to discuss a problem, were not associated with extreme levels of absence from school, although they were associated with below median attendance. However, being at high risk of clinically significant emotional or behavioural difficulties as reported by the teacher, or having low academic performance, were more strongly associated with extreme absence from school than they were with below median attendance at school.

The second model (Table 4.59) capturing very low levels of absence from school (absent less than nine days) indicates that, once again, essentially the same set of factors are associated with both high levels of school attendance and below median school attendance. However, there were several differences. Risk of clinically significant emotional or behavioural difficulties was associated with below median attendance, but not with high levels of attendance. However, stronger relationships were observed between high levels of attendance and getting enough sleep, and between employment status of the primary carer and high levels of attendance.



## UNEXPLAINED ABSENCE

### EXPLAINED AND UNEXPLAINED ABSENCES OF ABORIGINAL STUDENTS

The most significant difference between Aboriginal and non-Aboriginal students in relation to school attendance is ‘the much larger proportion of Indigenous students who are absent from school for a comparatively large number of days.’<sup>2</sup> Furthermore, absences of Aboriginal students are much more likely to be recorded as unexplained and less likely to be followed up for an explanation.<sup>2</sup>

However, while the degree of absence from school among Aboriginal children is higher than that of non-Aboriginal children, the reliability of data collection undertaken by educational authorities is an issue. It is recommended that to improve information about school attendance of Aboriginal children, education providers need to be more rigorous in recording school absences. This undertaking would require improving the quality of school systems for recording absences and additional follow-up to establish why a student was absent.<sup>2</sup>

This suggests that teachers should be mindful of the particular difficulties facing some children. For example, some carers have poor written English language skills and are unable to write a note. Thus, these absences would subsequently be recorded as unexplained if not followed up by the teacher.

Principals were asked how many of their student’s absences were explained satisfactorily, how many were explained questionably and how many were unexplained. Satisfactory explanations were calculated by dividing the number of days explained satisfactorily by number of possible attendance days and multiplying by 209. The same process was applied for questionably explained absences and unexplained absences from school. For comparability with the 1993 *Western Australian Child Health Survey* (WA CHS), the number of unexplained days absent has been analysed using three categories — ‘none’, ‘1–10’ and ‘more than 10’.

Almost half of all Aboriginal students (47.6 per cent; CI: 44.5%–50.6%) had more than 10 unexplained absences, 18.9 per cent (CI: 17.0%–20.9%) of students had 1–10 unexplained absences while 33.5 per cent (CI: 30.5%–36.5%) of students had no unexplained absences (Table 4.60).

#### Comparison with the 1993 WA CHS

The 1993 WA CHS found that among 4–16 year-olds, 4.3 per cent (CI: 3.1%–6.0%) of primary school students and 5.9 per cent (CI: 3.7%–8.4%) of high school students had more than 10 days of unexplained absence from school during the school year. The corresponding proportions for 4–17 year-olds in the WAACHS were 46.3 per cent (CI: 42.6%–50.2%) and 50.5 per cent (CI: 45.4%–55.6%) respectively (Table 4.64).

#### Unexplained absence and attendance ratio

The proportion of students who had more than 10 unexplained absences was significantly higher among students who had been absent from school for at least 26 days in a school year (74.7 per cent; CI: 71.3%–78.0%) than those who had been absent for less than 26 days (20.3 per cent; CI: 17.3%–23.6%) (Table 4.60).

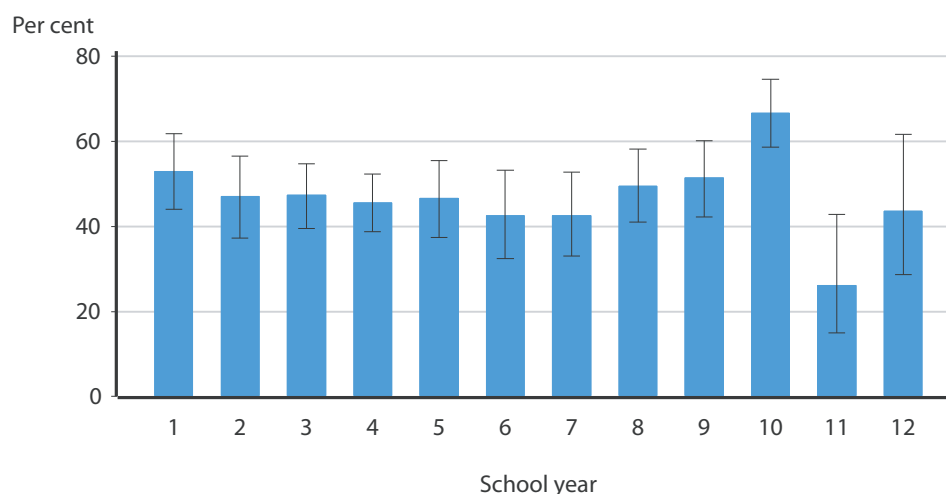


## Unexplained absence and year at school

Children in Years 8–10 had the highest proportion with more than 10 unexplained absences (54.6 per cent; CI: 49.3%–59.8%) while the lowest proportion was among students in Years 11–12 (32.7 per cent; CI: 22.7%–44.4%) (Table 4.61).

By individual year at school, the proportion of students with more than 10 unexplained absences was highest among students in Year 10 (66.6 per cent; CI: 58.7%–74.4%) and lowest among students in Year 11 (26.1 per cent; CI: 15.0%–42.8%). There was little variation across the remaining years at school, with close to half in each year having more than 10 unexplained absences. Over half the students in Year 1 (53.0 per cent; CI: 44.1%–61.9%) had more than 10 unexplained absences while, for children in pre-primary school and in ungraded classes, the proportions were 47.7 per cent (CI: 38.8%–56.7%) and 43.3 per cent (CI: 17.7%–71.1%) respectively.

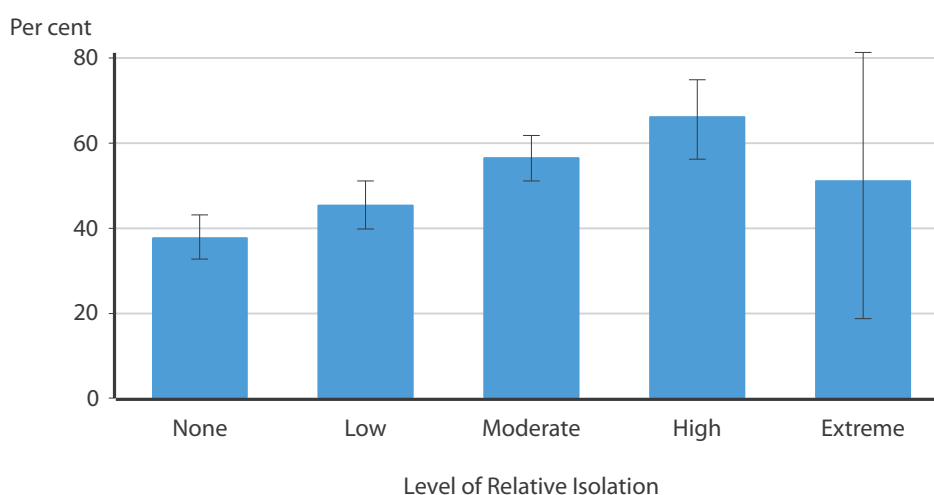
**FIGURE 4.11:** STUDENTS AGED 4–17 YEARS — PROPORTION WITH MORE THAN 10 UNEXPLAINED ABSENCES IN A SCHOOL YEAR, BY YEAR AT SCHOOL



Source: Table 4.62

## Unexplained absence and Level of Relative Isolation (LORI)

**FIGURE 4.12:** STUDENTS AGED 4–17 YEARS — PROPORTION WITH MORE THAN 10 UNEXPLAINED ABSENCES, BY LEVEL OF RELATIVE ISOLATION



Source: Table 4.63





The frequency of more than 10 unexplained absences rose with increasing isolation. As shown in Figure 4.12, the proportion of students with more than 10 unexplained absences from school was significantly higher in areas of moderate and high isolation (56.5 per cent; CI: 51.2%–61.8%, and 66.2 per cent; CI: 56.2%–75.0% respectively) than in the Perth metropolitan area (37.7 per cent; CI: 32.7%–43.1%).

## STUDENT FACTORS AND UNEXPLAINED ABSENCE

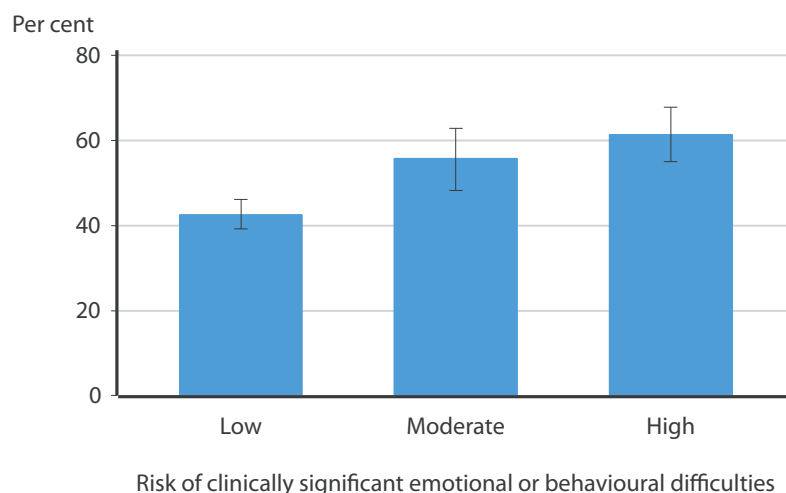
### Unexplained absence and whether student not wanted to go to school

Carers were asked ‘taking into account the students age, in the past 6 months has he or she not wanted to go to school?’. The proportion of students with more than 10 unexplained absences was higher among those students whose carers had reported that, in the six months prior to the survey, the student had not wanted to go to school (58.6 per cent; CI: 54.0%–63.2%) than among those who had not refused to go to school (41.6 per cent; CI: 38.1%–45.3%) (Table 4.65).

### Unexplained absence and emotional or behavioural difficulties (SDQ)

As shown in Figure 4.13, the proportion of students who had more than 10 days of unexplained absences increased with the increased risk of clinically significant emotional or behavioural difficulties as assessed from teacher reports, ranging from 42.6 per cent (CI: 39.2%–46.1%) of students at low risk to 61.4 per cent (CI: 55.0%–67.8%) of students at high risk.

**FIGURE 4.13:** STUDENTS AGED 4–17 YEARS — PROPORTION WITH MORE THAN 10 UNEXPLAINED ABSENCES, BY TEACHER ASSESSED RISK OF CLINICALLY SIGNIFICANT EMOTIONAL OR BEHAVIOURAL DIFFICULTIES



Source: Table 4.66

### Unexplained absence and health risk factors

A number of health issues, including whether the student had ever had runny ears, whether they had normal vision, experienced recurring chest, gastrointestinal or ear infections, whether they had difficulty saying certain sounds, ever had asthma, holes in their teeth or trouble getting enough sleep were analysed against unexplained absences and no associations were found.



Among 12–17 year-old students, no associations were found between substance use such as smoking and alcohol consumption and more than 10 unexplained absences from school. Nor were any associations found between unexplained absences and whether students had thought about suicide or ever attempted suicide. Whether a student had been bullied at school or whether they had been treated badly because they were Aboriginal, either at school or out of school, had no association with unexplained absences from school.

### Modelling the association between more than 10 unexplained absences and student factors

A multivariate logistic regression analysis was undertaken to model the probability of having more than 10 days of unexplained absences from school. The following student-related factors were found to be independently associated with having more than 10 unexplained absences per year (Table 4.67):

**Language spoken in the school playground.** Students who did not speak English in the playground were over twice as likely (Odds Ratio 2.27; CI: 1.54–3.34) to have had more than 10 unexplained absences.

**Ever been in day care.** Students aged 4–11 years who had never been in day care were almost twice as likely (Odds Ratio 1.79; CI: 1.32–2.43) to have had more than 10 days of unexplained absence from school.

**Sleeping problems.** Students who had trouble getting enough sleep were almost twice as likely (Odds Ratio 1.79; CI: 1.22–2.63) to have had more than 10 days of unexplained absence from school throughout the year.

**Helping with school work at home.** Students who had no-one to help them with their school work at home were twice as likely (Odds Ratio 2.09; CI: 1.33–3.28) to have had more than 10 days of unexplained absence from school throughout the year than students who had someone at home to help them.

**Primary carer or partner needed to see AIEO about school problem.** Students whose carers had needed to see an AIEO about a school problem the student has had at school were one and a half times as likely (Odds Ratio 1.57; CI: 1.05–2.37) to have had more than 10 days of unexplained absence.

**Primary carer or partner needed to see class teacher about school problem.** Students whose carers had needed to see the class teacher about a problem the student has had at school were over one and a half times less likely (Odds Ratio 0.56; CI: 0.41–0.76) to have had more than 10 days of unexplained absence.

**Primary carer or partner needed to see school principal about school problem.** Students whose carers had needed to see the school principal about a problem the student has had at school were one and a half times more likely (Odds Ratio 1.53; CI: 1.07–2.20) to have had more than 10 days of unexplained absence.

**Overall academic performance.** The likelihood of more than 10 days of unexplained absence from school was increased if the student's overall academic performance was low (Odds Ratio 2.12; CI: 1.65–2.71).

**Risk of clinically significant emotional or behavioural difficulties.** The likelihood of more than 10 days of unexplained absences was increased where the student was assessed from teacher reports to be at high risk of clinically significant emotional or behavioural difficulties. Students at high risk were over one and a half times as likely (Odds Ratio 1.63; CI: 1.18–2.27) to have had more than 10 days of unexplained absence from school than students at low risk.



### Student level factors not independently associated with more than 10 days of unexplained absence

Student-related factors found not to be associated with more than 10 days of unexplained absence from school included alcohol use by mother during pregnancy, whether the child had attended pre-school or kindergarten, physical health variables such as poor vision, hearing problems, speech difficulties and dietary indicators. Youth risk behaviours not associated included smoking, alcohol consumption, bullying, and perceptions of racism.

## CARER FACTORS AND UNEXPLAINED ABSENCE

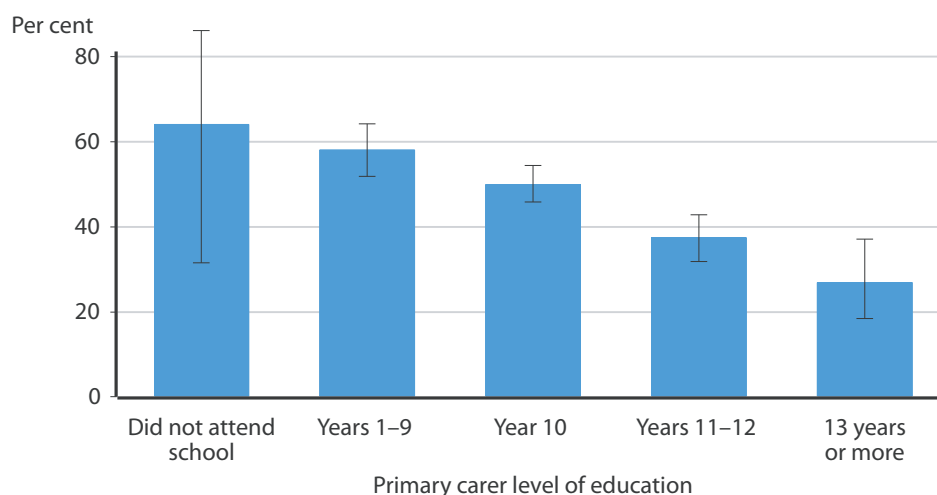
### Unexplained absence and primary carer forcibly separated from natural family

There was an association between more than 10 unexplained absences and whether the student’s primary carer had been forcibly separated from their natural family. Among students whose primary carer had been separated from their natural family by a mission, the government or welfare, the proportion with more than 10 unexplained absences was 62.5 per cent (CI: 53.8%–71.1%) compared with 49.7 per cent (CI: 46.2%–53.3%) of students whose primary carer had not been taken (Table 4.68).

### Carer education

As shown in Figure 4.14, there is a strong association between more than 10 unexplained absences from school and carer education (see *Glossary*). Half of all Aboriginal students whose primary carer had completed Year 10 (50.0 per cent; CI: 45.8%–54.4%) had more than 10 days of unexplained absence from school compared with 37.4 per cent (CI: 31.9%–42.9%) of students whose primary carer had completed Years 11 or 12 and 26.8 per cent (CI: 18.5%–37.1%) of students whose primary carer had been educated beyond Year 12.

**FIGURE 4.14:** STUDENTS AGED 4–17 YEARS — PROPORTION WITH MORE THAN 10 UNEXPLAINED ABSENCES, BY PRIMARY CARER LEVEL OF EDUCATION



Source: Table 4.69



## Carer labour force status

The labour force status of the primary carer was a factor related to more than 10 unexplained absences. Among students whose primary carers were employed, 38.5 per cent (CI: 33.8%–43.2%) had more than 10 days of unexplained absence compared with 57.4 per cent (CI: 48.5%–66.6%) of students whose primary carer was unemployed and 53.1 per cent (CI: 49.1%–56.9%) of students whose primary carer was not in the labour force (Table 4.70).

## Modelling the association between more than 10 unexplained absences and carer factors

A multivariate logistic regression analysis was undertaken to model the probability of having more than 10 days of unexplained absence from school. After controlling for Level of Relative Isolation, age and sex, the following carer related factors were found to be independently associated with having more than 10 unexplained absences per year (Table 4.71).

**Primary carer forcibly separated from natural family.** The negative effects of past removal policies have been shown to have an affect on unexplained absences from school. Students whose primary carer had been forcibly separated from their natural family were almost twice as likely (Odds Ratio 1.82; CI: 1.24–2.67) to have more than 10 unexplained absences from school.

**Primary carer level of education.** Students whose carers had been educated beyond Year 10 were less likely to have more than 10 days of unexplained absence. For those whose primary carer had completed either Year 11 or 12, the likelihood of more than ten days unexplained absence was half (Odds Ratio 0.64; CI: 0.47–0.86) that of students whose primary carer had completed Year 10, while for students whose carer had completed 13 years or more, the likelihood was even less (Odds Ratio 0.37; CI: 0.21–0.67).

**Primary carer labour force status.** Students whose primary carer was either unemployed or not in the labour force were more than twice as likely (Odds Ratio 2.39; CI: 1.60–3.58, and Odds Ratio 2.05; CI: 1.57–2.68 respectively) to have had more than 10 days of unexplained absence from school.

**Primary carer ever arrested or charged with an offence.** For students whose primary carer had been arrested or charged with an offence, the likelihood of more than 10 unexplained absences was almost doubled (Odds Ratio 1.84; CI: 1.44–2.36).

**Primary carer attended an Aboriginal funeral in the past 12 months.** Students whose primary carer had attended at least one Aboriginal funeral in the past 12 months were one and a half times more likely (Odds Ratio 1.69; CI: 1.27–2.24) to have had more than 10 days of unexplained absence from school.

## Carer level factors not independently associated with more than 10 days of unexplained absence from school

Carer factors modelled against unexplained absence and found not to be significantly associated with unexplained absence from school included whether the primary carer was the student's birth mother, whether the primary carer was Aboriginal and whether the primary carer had a limiting health condition.

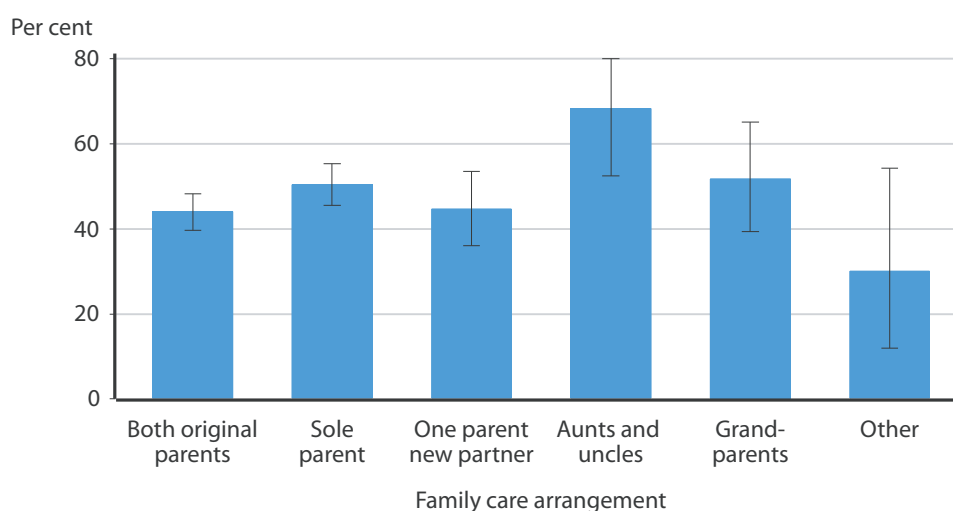


## FAMILY AND HOUSEHOLD FACTORS AND UNEXPLAINED ABSENCE

### Unexplained absence and family care arrangement

As shown in Figure 4.15, living with at least one original parent appeared to be a protective factor against having more than 10 unexplained absences in a school year. The proportion of students with more than 10 unexplained absences was significantly lower among those living with both original parents (44.0 per cent; CI: 39.7%–48.3%) than among those living with aunts and uncles (68.3 per cent; CI: 52.5%–80.1%). There was little difference in the proportion with more than 10 unexplained absences between those living with both original parents and those living with a sole parent or an original parent with a new partner.

**FIGURE 4.15:** STUDENTS AGED 4–17 YEARS — PROPORTION WITH MORE THAN 10 UNEXPLAINED ABSENCES, BY FAMILY CARE ARRANGEMENT



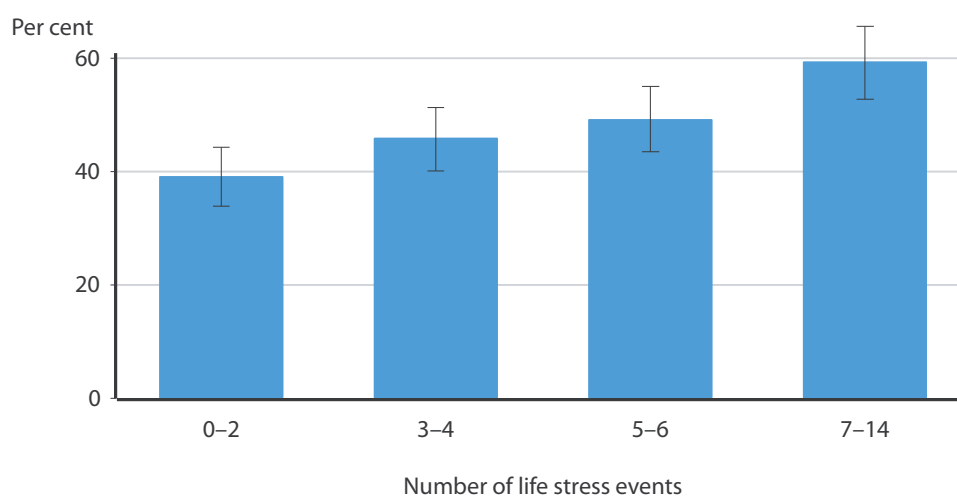
Source: Table 4.72

### Unexplained absence and life stress events

There was an association between the number of unexplained absences and the number of life stress events experienced by the student’s family. As shown in Figure 4.16, the proportion of students with more than 10 unexplained absences increased with the number of life stress events experienced. Among students living in families that had experienced 7–14 life stress events, 59.4 per cent (CI: 52.8%–65.6%) had more than 10 unexplained absences compared with 39.1 per cent (CI: 33.9%–44.3%) living in families with less than 3 life stress events.



**FIGURE 4.16:** STUDENTS AGED 4–17 YEARS — PROPORTION WITH MORE THAN 10 UNEXPLAINED ABSENCES, BY NUMBER OF LIFE STRESS EVENTS EXPERIENCED BY THE FAMILY IN THE LAST 12 MONTHS



Source : Table 4.73

#### Unexplained absence and overuse of alcohol causing problems in the household

The proportion of students with more than 10 unexplained absences was significantly higher among those whose carers reported overuse of alcohol causes problems in the household (62.3 per cent; CI: 54.2%–70.0%) than among students living in households without such problems (44.9 per cent; CI: 41.9%–48.1%) (Table 4.74).

#### Unexplained absence and home ownership

The survey found a relationship between unexplained absence from school and home ownership. Across the state, 30.5 per cent (CI: 24.7%–36.7%) of students living in a home which was owned or being paid off had more than 10 days of unexplained absence from school compared with 53.1 per cent (CI: 49.8%–56.4%) of students living in rented accommodation (Table 4.75).

By level of relative isolation, the association between home ownership and more than 10 days of unexplained absence was significant only in the Perth metropolitan area and in areas where the level of relative isolation was high (Table 4.75).

#### Unexplained absence and household occupancy level

Over half of students living in households with high household occupancy level (see *Glossary*) had more than 10 unexplained absences (58.0 per cent; CI: 52.3%–63.4%). This was significantly higher than for students living in households with low household occupancy level (43.9 per cent; CI: 40.6%–47.3%) (Table 4.76).

#### Modelling the association between more than 10 unexplained absences and family factors

A multivariate logistic regression analysis was undertaken to model the probability of having more than 10 days of unexplained absences from school. The following family-related factors were found to be independently associated with having had more than 10 unexplained absences per year (Table 4.77):



**Family care arrangement.** Students in the care of aunts and uncles were twice as likely (Odds Ratio 1.89; CI: 1.10–3.26) as students cared for by both original parents to have had more than 10 days of unexplained absence from school.

**Number of life stress events.** Students living in families that had experienced 7–14 life stress events in the last 12 months were almost two and a half times as likely (Odds Ratio 2.41; CI: 1.72–3.40) to have had more than 10 unexplained absences from school than students living in families who had experienced less than 3 life stress events. Students were one and a half times more likely (Odds Ratio 1.56; CI: 1.13–2.15) to have more than 10 unexplained absences if their families had experienced five or six life stress events and one and a half times more likely (Odds Ratio 1.42; CI: 1.03–1.95) if they experienced three or four life stress events.

**Home ownership.** Students living in homes which were rented were over twice as likely (Odds Ratio 2.43; CI: 1.79–3.29) than students living in homes that were either owned or being paid off to have had more than 10 unexplained absences during the school year.

**Number of homes lived in since birth.** Mobility is often cited as a major factor associated with absence from school and truancy. However, the survey found that students who had lived in five or more houses since birth were one and a half times less likely (Odds Ratio 0.64; CI: 0.50–0.83) to have had more than 10 days of unexplained absence from school.

#### Family level factors not independently associated with more than 10 days of unexplained absence

As well as those factors outlined above, other variables were also modelled and found not to be independently associated with unexplained absences. They included:

- ◆ family functioning
- ◆ looking at a book with a child at home
- ◆ family financial strain
- ◆ overuse of alcohol causing problems in the household
- ◆ household occupancy level.

#### SCHOOL FACTORS AND UNEXPLAINED ABSENCE

School principals were asked to provide information about their school. For detailed analysis of these findings see Chapter 3. It has been suggested that schools are a contributing factor to students being absent from school, particularly in relation to unexplained absences. Some of the issues examined include: the category of school; the composition of teachers and student to teacher ratios; school principals' assessments of learning, teaching and support programmes; and the presence of Aboriginal and Islander Education Officers (AIEOs) in the school. For 12–17 year-olds, issues of racism and bullying at school have also been examined.



### Category of school

Approximately half of students in Government schools (48.6 per cent; CI: 45.4%–51.8%) and Catholic schools (47.0 per cent; CI: 37.5%–56.0%) had more than 10 days of unexplained absence from school in the school year compared with one in five students (22.0 per cent; CI: 9.9%–42.3%) in Independent schools (Table 4.78).

### Proportion of students who are Aboriginal

The proportion of Aboriginal students with more than 10 unexplained absences increased with the increasing proportion of Aboriginal students at the school. In schools where Aboriginal students represented less than 10 per cent of the school population, 35.9 per cent (CI: 30.9%–41.1%) of students had more than 10 unexplained absences. Where Aboriginal students represented more than 90 per cent of the school population, the proportion with more than 10 unexplained absences was significantly higher (61.7 per cent; CI: 52.6%–70.4%) (Table 4.79).

### Teachers new to teaching

No association was found between the proportion of teachers new to teaching in the school and the proportion of students with more than 10 unexplained absences.

### Student to teacher ratio

No association was found between unexplained absences and the number of students per teacher in the school.

### Learning, teaching and support programmes for Aboriginal students

An index of learning, teaching and support programmes for Aboriginal students was constructed and presented as quartiles (see *Appendix C*). No significant difference was found in the proportion of students with more than 10 unexplained absences from school across all four quartiles.

### Aboriginal Student Support and Parent Awareness Committee (ASSPA)

Throughout the state, the proportion of students with more than 10 unexplained absences was significantly lower if they attended schools that did not have an Aboriginal Student Support and Parent Awareness Committee (ASSPA) (23.7 per cent; CI: 14.5%–36.4%) than if they had attended schools with an ASSPA (49.6 per cent; CI: 46.4%–52.7%) (Table 4.80).

### Aboriginal and Islander Education Officer (AIEO)

Over half (52.4 per cent; CI: 49.1%–55.7%) of the students in schools that had an AIEO had more than 10 days of unexplained absence from school compared with one third (33.3 per cent; CI: 27.0%–40.1%) of students in schools with no AIEO (Table 4.81).





## Modelling the association between more than 10 unexplained absences and school factors

A multivariate logistic regression analysis was undertaken to model the probability of having more than ten days of unexplained absences from school using school-related factors. When controlling for Level of Relative Isolation, age and sex the following school related factors were found to be independently associated with having more than 10 unexplained absences per year (Table 4.82).

**Category of school.** Students who attended Catholic schools were two times less likely (Odds Ratio 0.47; CI: 0.27–0.80) than students in Government schools to have had more than 10 unexplained absences.

**Proportion of students who are Aboriginal.** Compared with students in schools where Aboriginal students represented less than 10 per cent of the school population, students in schools where Aboriginal students comprised 90 per cent or more of the school population were three times more likely (Odds Ratio 3.02; CI: 1.38–6.59) to have had more than 10 unexplained absences from school, while students in schools where the proportion of students who were Aboriginal ranged from 10 per cent to 90 per cent were over one and a half times as likely (Odds Ratio 1.67; CI: 1.10–2.52).

**Implementation of *Do You Hear What I Hear* – Otitis media.** The likelihood of more than 10 unexplained absences is increased (Odds Ratio 1.67; CI: 1.10–2.54) in schools where *Do You Hear What I Hear* has not been implemented.

**Aboriginal and Islander Education Officer (AIEO) at the school.** In schools where there was no AIEO, students were almost two times less likely (Odds Ratio 0.53; CI: 0.36–0.78) to have had more than 10 unexplained absences.

**Removal of student from formal instruction due to misbehaviour.** The likelihood of more than 10 unexplained absences was increased where students had been removed from class either rarely or sometimes (Odds Ratio 1.73; CI: 1.23–2.44 and Odds Ratio 1.71; CI: 1.14–2.55 respectively).

**Student suspended from school.** Whether the student has been suspended from school during the year was found to be an indicator of unexplained absence. Students who had been suspended were almost twice as likely (Odds Ratio 1.78; CI: 1.09–2.92) to have had more than 10 days of unexplained absence from school in one year.

## School level factors not independently associated with more than 10 days of unexplained absence

School level factors found not to be associated with more than 10 unexplained absences from school included:

- ◆ Socioeconomic Index for schools (SEI)
- ◆ student to teacher ratio
- ◆ proportion of teachers new to teaching
- ◆ school principals' assessments of learning, teaching and support programmes
- ◆ Professional Development and curriculum activities.



## Modelling the association between more than 10 unexplained absences and the combination of student, carer, family and school factors

Factors found to be associated with unexplained absence from school in the individual models for student, carer, family and school factors were combined to model the overall levels of association. The following factors were independently associated with having more than 10 unexplained absences from school (Table 4.83):

**Language spoken in the playground.** Compared with students who spoke English in the playground, students who spoke an Aboriginal language were three and a half times more likely (Odds Ratio 3.42; CI: 1.29–9.06) to have had more than 10 unexplained absences, while those who spoke Aboriginal English were almost twice as likely (Odds Ratio 1.95; CI: 1.31–2.91).

**Trouble getting enough sleep.** The likelihood of more than 10 days unexplained absence from school was doubled if the student had trouble getting enough sleep (Odds Ratio 2.13; CI: 1.43–3.18).

**Helping with school work at home.** Students who had no-one to help them with their school work at home were over one and a half times as likely (Odds Ratio 1.66; CI: 1.04–2.64) to have had more than 10 days unexplained absence from school than students who had someone at home to help them.

**Overall academic achievement.** Students whose overall academic achievement was low were twice as likely (Odds Ratio 1.81; CI: 1.41–2.33) than students whose academic achievement was average or above average to have had more than 10 days of unexplained absence from school.

**Primary carer forced separation from natural family.** Students whose primary carer had been forcibly separated from their natural family were over one and a half times more likely (Odds Ratio 1.64; CI: 1.11–2.42) to have had more than 10 days of unexplained absence from school than students whose primary carer had not been forcibly separated.

**Primary carer level of education.** Students whose primary carer had continued their education beyond Year 10 were less likely to have more than 10 days of absence from school. Students whose primary carer had completed Years 11 and 12 and students whose primary carer had 13 years or more of education were one and a half times less likely (Odds Ratio 0.64; CI: 0.48–0.87 and Odds Ratio 0.41; CI: 0.22–0.74 respectively) to have had more than 10 unexplained absences than students whose primary carer had been educated to Year 10.

**Primary carer labour force status.** The labour force status of the primary carer was a predictor of unexplained absence from school. Students whose primary carer was unemployed or not in the labour force were twice as likely (Odds Ratio 1.96; CI: 1.30–2.96 and Odds Ratio 1.82; CI: 1.39–2.39 respectively) to have had more than 10 days of unexplained absence than students whose primary carer was employed.

**Primary carer ever arrested or charged with an offence.** Having a primary carer who had ever been arrested or charged with an offence almost doubled (Odds Ratio 1.73; CI: 1.34–2.23) the likelihood of more than 10 unexplained absences.

**Primary carer attended an Aboriginal funeral in the past 12 months.** Students whose primary carers had attended Aboriginal funerals in the 12 months prior to the survey were almost one and a half times as likely (Odds Ratio 1.37; CI: 1.02–1.84) to have had more than 10 unexplained absences from school.



**Number of life stress events.** The number of life stress events experienced by the family in the last 12 months was found to be associated with unexplained absence from school. Students living in families where 7–14 life stress events had occurred in the last 12 months were over one and a half times more likely (Odds Ratio 1.61; CI: 1.12–2.32) to have had more than 10 unexplained absences from school compared with students living in families where less than 3 life stress events had occurred.

**Home ownership.** Students who lived in rented accommodation were over one and a half times as likely (Odds Ratio 1.68; CI: 1.23–2.30) to have had more than 10 unexplained absences from school than students who were living in homes that were owned or being paid off.

**Number of homes lived in since birth.** Students who had lived in five or more homes since birth were almost one and a half times less likely (Odds Ratio 0.70; CI: 0.53–0.92) to have had more than 10 unexplained absences from school.

**How often someone from the household looks at a book with the student.** Students aged 4–11 years who had someone look at a book with them less than once a day were more likely to have had more than 10 unexplained absences from school. Students who hardly ever had a book looked at with them and those for whom the frequency was two or three times a week were one and a half times more likely (Odds Ratio 1.65; CI: 1.10–2.48 and Odds Ratio 1.47; CI: 1.04–2.08 respectively) to have had more than 10 unexplained absences.

**Aboriginal and Islander Education Officer (AIEO) at the school.** In schools where there was no AIEO, students were over one and a half times less likely (Odds Ratio 0.57; CI: 0.41–0.78) to have had more than 10 unexplained absences from school.

## IMPACT OF LOW LEVELS OF SCHOOL ATTENDANCE

### Attendance and academic performance

Ongoing exposure of a student to positive educational experiences within schools increases the potential for academic achievement. When students are not able to receive this, their academic performance is significantly limited.

In the survey, teachers were asked ‘compared to all students of the same age how would you describe this student’s overall academic performance?’ They were asked to rate the students on the following five-point scale: far below age, somewhat below age, at age level, somewhat above age, far above age. For the purposes of this analysis the five levels have been reduced to two. Students who were rated by their teachers at far below age and somewhat below age were classified as having low academic performance. Students rated by their teacher as at age level, somewhat above age, or far above age were classified as having an academic performance of average or above average. For more information on academic performance see Chapter 5.



Of those students who had missed at least 26 days of a school year, over two-thirds (67.5 per cent; CI: 63.7%–71.2%) had low academic performance. For students who had missed less than 26 days of school, the proportion with low academic performance was significantly lower (47.5 per cent; CI: 43.7%–51.3%) (Table 4.84).

The impact of school attendance on academic performance for both Aboriginal students as measured in the WAACHS, and all students as measured in the 1993 WA CHS, is shown in the top panel in Figure 4.17. As shown in the middle panel of Figure 4.17, very few of all students (as measured in the 1993 WA CHS) were away from school for more than 50 days and it was therefore not possible to estimate the impact on performance for all students with absences beyond 50 days.

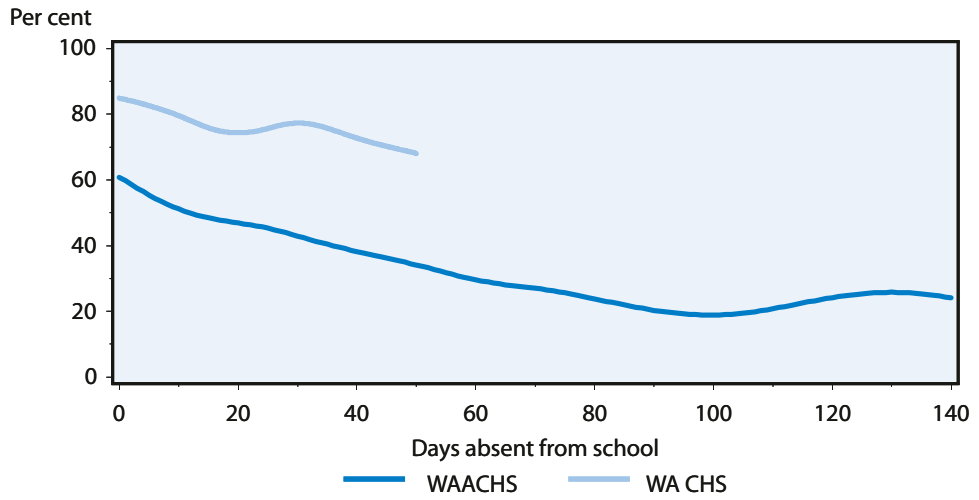
As the number of days absent from school increases, the proportion of students with average or above average academic performance decreases for both Aboriginal and all students. Nonetheless there is a considerable gap between Aboriginal and all students in the proportion with average or above average academic performance. This would suggest that school attendance, while critical, is not the sole factor influencing academic performance. After accounting for days absent from school, the proportion of Aboriginal students with average or above average academic performance is still approximately 25 percentage points lower than for all students with the same level of absences from school (top panel in Figure 4.17). When absence from school is not taken into account, overall the proportion of Aboriginal students with average or above average academic performance is approximately 38 percentage points lower than for all students (see *Chapter 5*).

While the higher degree of absenteeism among Aboriginal students accounts for part of the gap in performance between Aboriginal and all students, there are other contributing factors. These will be discussed in Chapters 5 and 6.

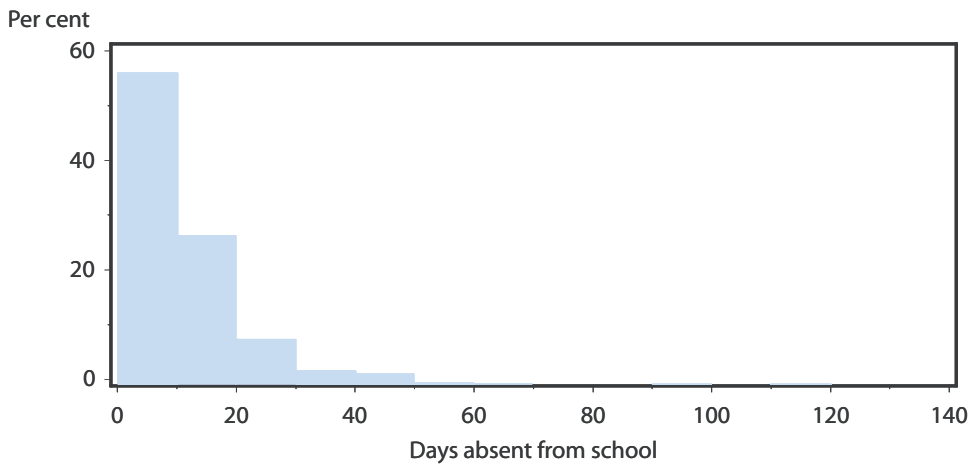
The curves shown in Figure 4.17 also challenge the notion that there is a proportion of days schooling that students can miss before academic performance is affected. For Aboriginal students, not only does the proportion of students at average or above average performance decline as soon as any days schooling are missed, the slope of the decline is steepest for the first few days of school missed. A similar pattern is seen for all students. This suggests that students who miss days of schooling may need support to help them catch up on school work missed while they are absent from school.



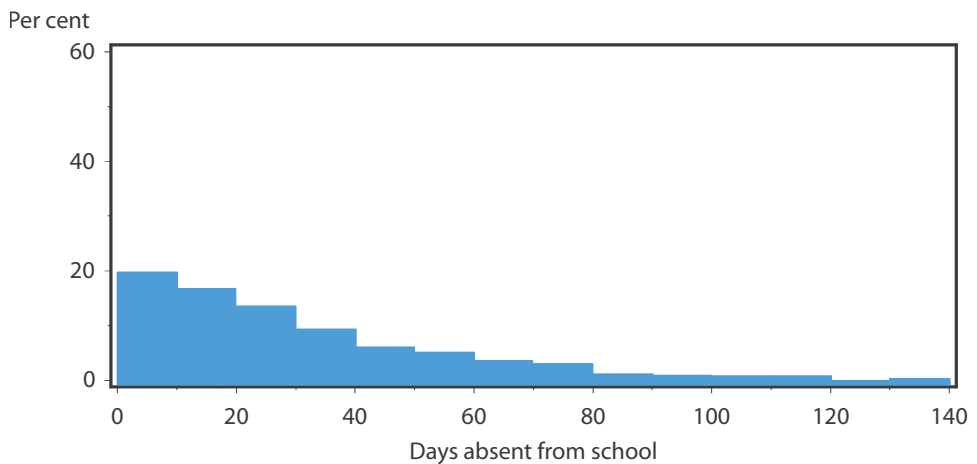
**FIGURE 4.17:** STUDENTS AGED 4–17 YEARS — PROPORTION WITH AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY NUMBER OF DAYS ABSENT FROM SCHOOL IN A SCHOOL YEAR, COMPARISON OF WAACHS AND 1993 WA CHS



DISTRIBUTION OF ALL STUDENTS BY DAYS ABSENT FROM SCHOOL — 1993 WA CHS



DISTRIBUTION OF ABORIGINAL STUDENTS BY DAYS ABSENT FROM SCHOOL — WAACHS



4



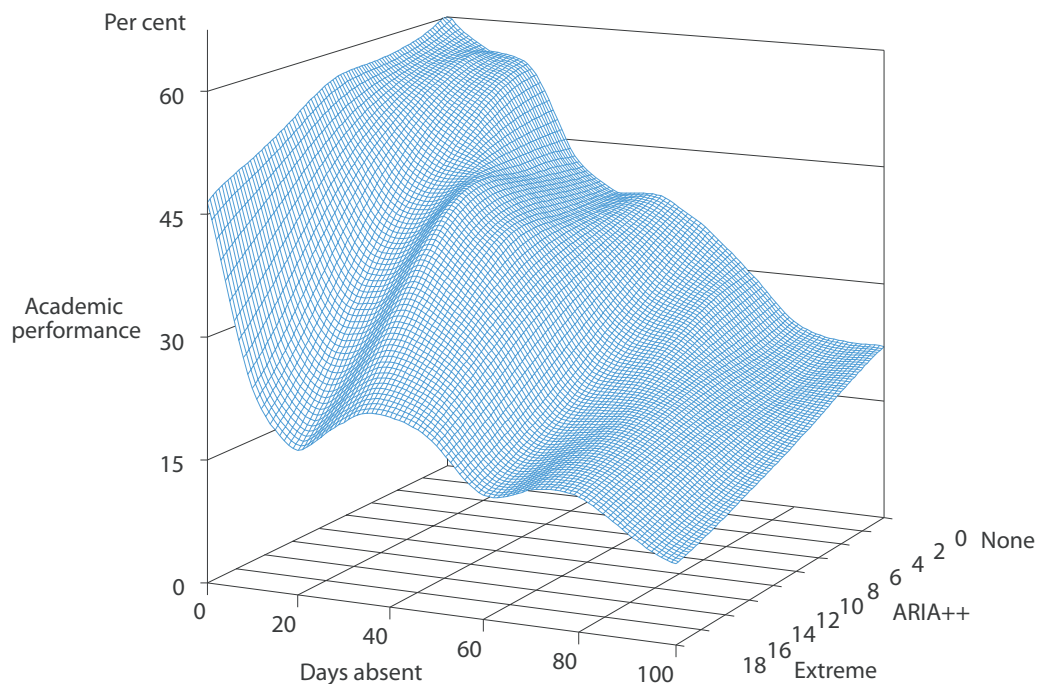
### Attendance, academic performance and Level of Relative Isolation

There is a strong relationship between attendance at school and Level of Relative Isolation. Academic performance is also associated with Level of Relative Isolation. In Figure 4.18, the proportion of students with average or above average academic performance is shown against both the number of days absent and ARIA++. The relationship between ARIA++ and levels of relative isolation is described in Chapter 1.

The figure shows that across all levels of relative isolation, overall academic performance declines sharply with the number of absences from school. At the same time, academic performance can be seen to decline with increasing isolation independently of number of days absent from school. The three dimensional surface shows that in areas of low relative isolation (low values of ARIA++) a small number of days absent from school has a substantially lesser impact on level of performance than the same degree of absence in more isolated areas (higher values of ARIA++).

This suggests that Aboriginal students in less isolated areas may have more resources or opportunities to catch up when a small amount of school is missed than students in more isolated areas.

**FIGURE 4.18:** STUDENTS AGED 4–17 YEARS —PROPORTION WITH AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY NUMBER OF DAYS ABSENT FROM SCHOOL IN A SCHOOL YEAR AND ARIA++



## IMPROVING ATTENDANCE AT SCHOOL

The findings from this chapter show the large disparity in levels of school attendance between Aboriginal and non-Aboriginal children. Non-Aboriginal children are absent from school, on average, about 8 days per school year. Only 15 per cent of Aboriginal children achieve this level of school attendance, with half of Aboriginal children missing at least 26 days of school per year. There is ample evidence to suggest that this level of absence has been documented for at least a decade, and has not changed appreciably during that time.

A singular focus on going to school, as presented in this chapter, runs the risk of ignoring the more important aspects of the experience of school. The survey findings show that while there is a clear relationship between attendance at school and academic performance, the disparity in attendance rates between Aboriginal and non-Aboriginal children accounts for only a proportion of the gap in levels of academic performance between Aboriginal and non-Aboriginal children. Improving the levels of school attendance of Aboriginal children should remain an important national priority. However, this is not the only issue that needs to be addressed to close the gap in performance at school between Aboriginal and non-Aboriginal children. This issue will be discussed further in later chapters in this volume.

General community attitudes toward school attendance reflect expectations that families have the main responsibility to see that their children attend school. This has the consequence of placing the major burden of blame on families when children fail to attend regularly. However, school systems also have a responsibility to monitor school attendance and seek to address problems that arise for those children who fail to attend regularly and to understand the contributions that schools and communities make in achieving high levels of attendance.

Many of the associations documented in this chapter suggest that the causes of poor attendance in Aboriginal children are deep-seated and reflect a long history of marginalisation and disadvantage. The questionable relevance of the educational experience in the eyes of many carers of Aboriginal children, perhaps the product of their own negative experiences of school, will be examined in greater detail in Chapter 7.

In approaching a response to these findings, education authorities are encouraged to be mindful of several features of the findings:

- ◆ Use of day care at some point in development is significantly associated with better attendance. This association was stronger than the association between attending pre-school and kindergarten and later attendance patterns. Early developmental enrichment through good quality day care is an important mechanism in improving educational opportunities for Aboriginal children.

*Continued . . .*



**IMPROVING ATTENDANCE AT SCHOOL** *(continued)*

- ◆ There was a strong association between attendance at school and teacher assessed risk of clinically significant emotional or behavioural difficulties. Given the higher proportions of Aboriginal children at high risk of emotional or behavioural difficulties, programmes at school that provide support and treatment – particularly early in the school experience – may buffer children from later higher risks of absence.
- ◆ There is a clear relationship between increasing levels of absence from school and lower levels of academic performance. Attending school matters. While it may be argued that the quality of the school experience is the key factor to educational participation, there is an inevitable point where the lack of attendance at school becomes the critical factor.
- ◆ Higher levels of carer education were associated with better attendance in their children. The theme of carers' perceptions of school and its impact on the education of their children will be discussed further in later chapters. However, this finding supports the theory that acting to redress past disadvantage and negative experiences in education for Aboriginal people through changing community attitudes towards the value of education is an important part of improving educational outcomes for current and future generations of Aboriginal children.
- ◆ Speaking a language other than English was associated with school attendance. While only a small proportion of Aboriginal students speak languages other than English, English literacy is an issue of concern for these students. This effect is adjusted for the Level of Relative Isolation — in other words, this association is not a proxy measure of isolation. English remains the principal language of instruction in Western Australian schools. This does not suggest that Aboriginal languages should not be taught or preserved. Indeed, quite the opposite is needed. However, if access to education is through the predominate medium of the English language, then improving English language proficiency for Aboriginal children is likely to reap benefits. Western education has been a principal force in the demise of Aboriginal cultural traditions and languages. Aboriginal communities need to participate in decisions about the preservation of Aboriginal languages in addition to appreciating the role that English language plays in access to and participation in education.
- ◆ Owning or purchasing a home was associated with lower rates of absence from school. This effect is relatively large and it should be kept in mind that this is in addition to the association with carer education. Home ownership and the stability it provides may impart protection from the risks of non-attendance. However, the majority of families with Aboriginal children live in rented accommodation.

*Continued . . . .*



**IMPROVING ATTENDANCE AT SCHOOL** *(continued)*

One issue of great concern is the striking lack of systematic studies into interventions that are effective in improving the attendance rates of Aboriginal children. What is available in the literature is ad hoc, uncoordinated and not sustained in its focus, and there appears to be a widespread and often tacit assumption that this problem is intractable. Most of the programmes aimed at improving school attendance for Aboriginal children have been implemented in small-scale trials, often limited to single schools. The trials are often so specific to local circumstances that generalisation of the results is difficult due, in part, to the small numbers of children involved. The result is inconclusive trial results.

There are many ideas that can be taken from past trials. However, what is now required is a systematic approach to developing and evaluating strategies on a broader scale. What is needed is a global programme with resources and materials that enable it to be adapted to the specific needs of individual communities and schools.

**ENDNOTES**

1. House of Representatives Standing Committee on Employment Education and Training. *Truancy and exclusion from school*. Canberra: Commonwealth of Australia; 1996.
2. Bourke CJ, Rigby K, Burden J. *Better practice in school attendance. Improving the school attendance of Indigenous students*. Canberra: Commonwealth Department of Education, Training and Youth Affairs; 2000.
3. Schwab RG. *Why only one in three? The complex reasons for low Indigenous school retention*. Canberra: Centre for Aboriginal Economic Policy Research (Research Monograph Number 16), Australian National University; 1999.
4. Marsh PF. Truancy or absenteeism? A school governance perspective. *Queensland Journal of Educational Research* 2000;16:147-57.
5. Ainley J, Lonsdale M. Non-attendance at school. In: Research Reports for the Prime Minister's Youth Pathways Action Plan Taskforce. *Footprints to the future - Appendix 2*. Canberra: Australian Government; 2001.
6. Rothman S. School absence and student background factors: A multilevel analysis. *International Education Journal* 2001;2:59-68.
7. Finn JD. Withdrawing from school. *Review of Educational Research* 1989;59:117-42.
8. Gray J, Beresford Q. Aboriginal non-attendance at school: Revisiting the debate. *Australian Educational Researcher* 2002;29:27-42.
9. Zubrick SR, Silburn SR, Gurrin L, Teoh H, Shepherd C, Carlton J, Lawrence D. *Western Australian Child Health Survey: Education, health, and competence*. Perth: Australian Bureau of Statistics and the TVW Telethon Institute for Child Health Research; 1997.
10. Northern Territory Department of Education. *Learning lessons: An independent review of Indigenous education in the Northern Territory*. Darwin: Northern Territory Department of Education; 1999.
11. Commonwealth of Australia. *Katu Kalpa - Report on the inquiry into the effectiveness of education and training programs for Indigenous Australians*. Canberra: Commonwealth of Australia; 2000.
12. Management Committee for the National Schools Literacy Survey. *Mapping Literacy Achievement. Results of the 1996 National School English Literacy Survey*. Canberra: Department of Employment, Education, Training and Youth Affairs; 1997.



13. Groome H, Hamilton A. *Meeting the educational needs of Aboriginal adolescents*. Canberra: National Board of Employment, Education and Training (Commissioned Report Number 35); 1995.
14. Cosgrave R, Bishop F, Bennie N. *Attendance and absence in New Zealand schools*. Wellington: Ministry of Education, New Zealand; 2003.
15. Department of Indian and Northern Affairs. *Report of the Royal Commission on Aboriginal Peoples*. Canada: Department of Indian and Northern Affairs; 1996.
16. Bashford L, Heinzerling H. Blue Quills Native Education Centre: A case study. In: Barman J, Hébert Y, McCaskill D, editors. *Indian Education in Canada. Volume 2: The challenge*. Vancouver: University of British Columbia Press; 1987.
17. McCaskill D. Revitalisation of Indian culture: Indian cultural survival schools. In: Barman J, Hébert Y, McCaskill D, editors. *Indian Education in Canada. Volume 2: The challenge*. Vancouver: University of British Columbia Press; 1987.
18. Bell D, Anderson K, Fortin T, Ottmann J, Rose S, Simard L, Spencer K. *Sharing our success: Ten case studies in Aboriginal schooling*. Kelowna, British Columbia: Society for the Advancement of Excellence in Education; 2004.
19. Pavel MD, Curtin TR, Whitener SD. *Characteristics of American Indian and Alaska native education: Results from the 1990–91 and 1993–94 Schools Staffing Surveys* (NCES Number 95735). Washington, DC: U.S. Department of Education, National Centre for Educational Statistics; 1995.
20. Synder TD. *Digest of Education Statistics 2001* (NCES Number 2002-130). Washington, DC: National Center for Education Statistics. U.S. Department of Education; 2002.
21. Department of Indian Affairs and Northern Development. *Basic Departmental Data 2003*. Ottawa: Department of Indian Affairs and Northern Development; 2004.
22. Ministerial Council on Education, Employment, Training and Youth Affairs. *Report of MCEETYA Taskforce on Indigenous Education*. Canberra: MCEETYA; 2000.
23. Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, De Maio JA, Cox A, Li J. *The Western Australian Aboriginal Child Health Survey: The Social and emotional wellbeing of Aboriginal children and young people*. Perth: Curtin University of Technology and Telethon Institute for Child Health Research; 2005.
24. Zubrick SR, Lawrence DM, Silburn SR, Blair E, Milroy H, Wilkes E, Eades S, D'Antoine H, Read A, Ishiguchi P, Doyle S. *The Western Australian Aboriginal Child Health Survey: The Health of Aboriginal children and young people*. Perth: Telethon Institute for Child Health Research; 2004.
25. Human Rights and Equal Opportunity Commission. *Bringing Them Home: Report of the national inquiry into the separation of Aboriginal and Torres Strait Islander children from their families*. Canberra: HREOC; 1997.
26. Strategic Results Project National Coordination and Evaluation Team. *What has worked (and will again)*. Canberra: Australian Curriculum Studies Association and National Curriculum Services; 2000.
27. McRae D, Ainsworth G, Cumming J, Hughes P, Mackay T, Price K, Rowland M, Warhurst J, Woods D, Zbar V. *What works? Explorations in improving outcomes for Indigenous students*. Canberra: Australian Curriculum Studies Association and National Curriculum Services; 2000.
28. Department of Education, Science and Training. *Gumala Mirnuwarni — Coming together to learn*. [Online] [cited 2005 Oct 21]; Available from: URL: <http://www.dest.gov.au/archive/iae/analysis/learning/1/gumala.htm>
29. Sarra C. *Young and black and deadly: Strategies for improving outcomes for Indigenous students*. Canberra: Australian College of Educators Quality Teaching Series (Paper Number 5); 2003.
30. Coventry G, Cornish G, Cooke R, Vinall J. *Skipping school: An examination of truancy in Victorian Secondary Schools*. Melbourne: Victorian Institute of Secondary Education; 1984.



## Chapter 5

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## Chapter 5

### PERFORMANCE AT SCHOOL

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*School can be a major developmental experience for children, young people and their families. As a social institution it exerts a lifelong influence on developmental opportunities and expectations. Performance at school is associated with onward participation in education as well as social and vocational opportunities in the short and long term. This chapter describes Aboriginal students' levels of overall academic performance as rated by their teachers. The relationship between academic performance and key demographic variable such as age, sex and Level of Relative Isolation are also explored. Additionally, student results on performance measures of Matrices and Word Definitions as well as educational benchmark test data are used to assess how well these items correlated with teacher rated overall academic performance.*

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#### SUMMARY

Various aspects of the academic performance of Western Australian Aboriginal students aged 4–17 years have been measured in the WAACHS using teacher reports, independent tests of verbal and non-verbal performance and administrative data linked to the survey. In this chapter, the methods used to measure academic performance are described. The performance of Aboriginal students in terms of these measures is also detailed. Where possible, comparisons of school performance with all students have also been made.

Two measures of the academic performance of Aboriginal students were collected in the WAACHS:

- ◆ Teacher rated literacy, numeracy and overall academic performance.
- ◆ Two standardised tests were administered to survey students by school teachers. A test of visuo-spatial reasoning ('Matrices' test) where students were asked to complete a pattern or design, and a test of English language word definitions ('Word Definitions' test).

A third measure entailed using test scores from the West Australian Literacy and Numeracy Assessment (WALNA). These were obtained by linking survey respondents with data held by the Western Australian Department of Education and Training.

In respect of teacher ratings of Aboriginal students aged 4–17 years:

- ◆ The proportion of Aboriginal students rated by their teachers as having low academic performance is disturbingly high. Almost six in ten students (58 per cent) were rated by their teachers as 'far below age' or 'somewhat below age' level in terms of overall academic performance.
- ◆ The proportion of Aboriginal students with low academic performance was significantly higher than the comparable proportion of all Western Australian students (19 per cent).



## SUMMARY (continued)

- ◆ Teacher rated academic performance was significantly associated with Aboriginal students' sex, age, Level of Relative Isolation and category of school. Male students, students aged 8–14 years, students living in areas of high and extreme isolation and students attending Independent schools were factors associated with an increased likelihood of low academic performance.

Comparisons with other students:

- ◆ While data that enables direct comparisons of the academic performance of Western Australian Aboriginal students with Aboriginal students in other Australian states is limited, the available evidence suggests that the lower performance of Aboriginal students relative to all students is consistent with findings in other Australian jurisdictions.
- ◆ Not only are West Australian Aboriginal students faring poorly in terms of academic performance when compared with all Western Australian students, international evidence suggests that the relative educational disadvantage of Indigenous students living in New Zealand, Canada and the United States is of a much smaller magnitude than the educational disparity observed between Australian Aboriginal students and all Australian students.

Analysis of the tests of verbal and non-verbal performance indicate:

- ◆ Western Australian Aboriginal students showed higher ability in the Matrices test, where their mean centile score was 42. This was significantly higher than Aboriginal students mean centile score of 19 in the Word Definitions test.
- ◆ Relative to Aboriginal students, on average all students scored significantly higher in both the Matrices (Mean: 59) and Word Definitions test (Mean: 45).
- ◆ For both Aboriginal and all students, performance in the Matrices and Word Definitions tests declined with age. Average test scores dropped markedly after age 4–5 years for Aboriginal students, whereas a decline for all Western Australian students did not occur until age 9–10 years.
- ◆ Aboriginal students whose main language spoken in the classroom was English scored significantly higher in both the Matrices and Word Definitions tests relative to students who spoke a language other than English. However, a comparison of Aboriginal students who spoke English with all Aboriginal students reveals no difference in performance across the two groups, suggesting that English language skills are not the sole reason for the lower performance of Aboriginal students in these two tests.

Administrative data linked to the survey also confirm inequalities in academic performance between Aboriginal students and all Western Australian students:

- ◆ The proportion of Aboriginal students in the survey achieving the national benchmarks in WALNA testing was highest in Year 3 testing, where results ranged from 52 per cent to 77 per cent in numeracy, spelling, writing and reading tests. For Year 7 testing, the proportion of Aboriginal students achieving the national benchmarks was significantly lower where results ranged from 36 per cent to 43 per cent.



**SUMMARY** *(continued)*

- ◆ By way of comparison, administrative data covering the period 2001–2004, indicates that the proportion of all students achieving the national benchmark in Year 3 testing was between 81 per cent and 95 per cent. The corresponding proportions meeting the benchmark for all students in Year 7 testing was between 76 per cent and 85 per cent. While the performance of all students also declines between Year 3 and Year 7 testing, the deterioration in performance is much greater for Aboriginal students. These results further confirm wide disparities in educational outcomes between Aboriginal and all students.
- ◆ A separate analysis of surveyed Aboriginal students who completed a Year 3, Year 5 and Year 7 WALNA test also revealed that levels of performance declined over time. While only a small number of survey students completed all three tests, for this group the proportion meeting the numeracy benchmark declined by over 20 percentage points over the four year period – falling from 65 per cent to 42 per cent. Over the same period, the proportion achieving the reading benchmark declined by 30 percentage points, falling from 85 per cent to 55 per cent.
- ◆ A key measure of academic performance available from the survey is teacher ratings of overall academic performance, as this measure is available for all surveyed students. Analysis of teacher ratings with reference to independent measures of academic performance including Matrices and Word Definitions testing and WALNA test scores, shows good agreement between teacher's overall rating of academic performance and other measures of student performance.



## MEASURING ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS

Data describing some aspects of the school performance of Aboriginal children aged 4–17 years, at school at the time of survey and whose carers gave consent to approach schools is the focus of this chapter.

Two measures of academic performance were collected in the Western Australian Aboriginal Child Health Survey (WAACHS):

- ◆ Data were gathered from the teachers of surveyed students. These data were in the form of a teacher rating for three areas of performance: literacy, numeracy and overall academic performance.
- ◆ Two standardised cognitive tests were directly administered to surveyed students – a test of non-verbal performance (the ‘Matrices’ test) and a test of one aspect of English language reasoning (the ‘Word Definitions’ test). The commentary box entitled *Verbal and non-verbal performance measures* discusses both of these tests in more detail.

Additionally, test scores from the West Australian Literacy and Numeracy Assessment (WALNA) were obtained by linking survey respondents with data held by the Western Australian Department of Education and Training. See commentary box entitled *Western Australian Literacy and Numeracy Assessment (WALNA) data* for more details.

This chapter describes the levels of educational performance of Aboriginal students with reference to these measures. The relationship between academic performance and key demographic variables such as age, sex and Level of Relative Isolation (LORI) are also explored. In later sections, student’s results in the measures of Matrices and Word Definitions and linked WALNA data are also analysed. These independent performance measures are also analysed to assess how well they correlate with teacher rated overall academic performance.

### TEACHER RATED ACADEMIC PERFORMANCE

Teachers were asked to rate each student in the survey in comparison with students of the same age. Teachers were asked to describe the student’s achievement in the key learning areas of literacy and numeracy along with their overall academic performance. Each student’s performance in each of these areas was rated on the following five point scale:

- ◆ far below age level
- ◆ somewhat below age level
- ◆ at age level
- ◆ somewhat above age level
- ◆ far above age level.

Information on these key learning areas of academic performance (literacy, numeracy and overall academic performance) was collected for all surveyed students.

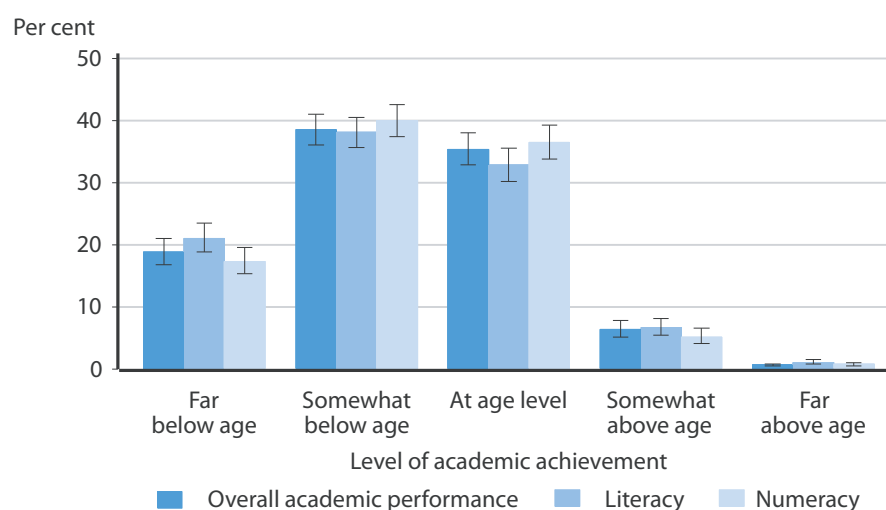




## Overall academic performance

The overall academic performance of almost one in five Aboriginal students (18.9 per cent; CI: 16.8%–21.1%) was rated at ‘far below age level’ by their teachers. A further 38.6 per cent (CI: 36.1%–41.1%) were rated at ‘somewhat below age level’. The corresponding proportion rated at ‘far above age level’ was 0.7 per cent (CI: 0.5%–0.9%) (Figure 5.1).

**FIGURE 5.1: ABORIGINAL STUDENTS AGED 4–17 YEARS — TEACHER RATED ACADEMIC PERFORMANCE**



Source: Table 5.1

## Performance in literacy and numeracy

The distribution of teacher rated academic performance was similar across all three key learning areas of academic performance. Around one in five students were rated ‘far below age level’ in overall academic performance (18.9 per cent; CI: 16.8%–21.1%), in literacy (21.1 per cent; CI: 18.9%–23.5%) and in numeracy (17.4 per cent; CI: 15.4%–19.6%). The corresponding proportions were also similar across all three measures within each of the other achievement categories for students rated at ‘somewhat below age level’, ‘at age level’, ‘somewhat above age level’ and ‘far above age level’ (Figure 5.1).

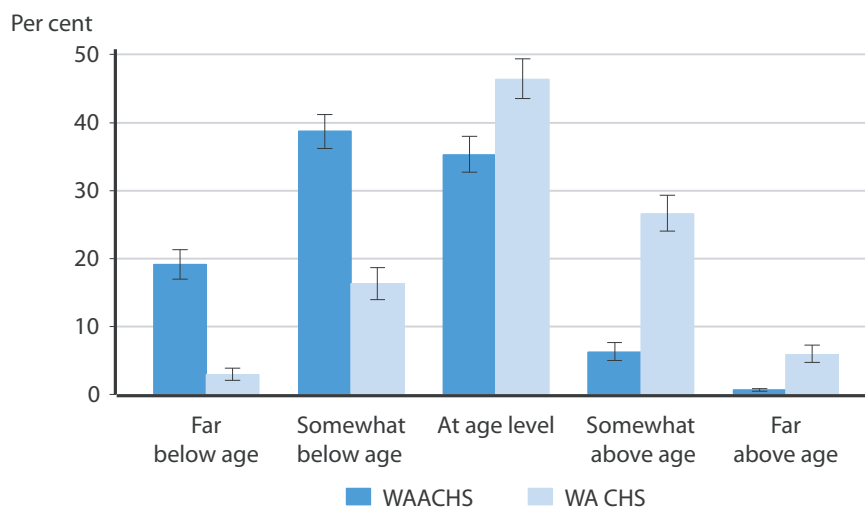
## TEACHER RATED OVERALL ACADEMIC PERFORMANCE – COMPARISON WITH ALL STUDENTS

As the 1993 *Western Australian Child Health Survey* (WA CHS) asked the same questions of teachers of all Western Australian students aged 4–16 years, it was possible to compare the academic performance of Aboriginal students with the general Western Australian student population.<sup>1</sup>

Restricting the WAACHS data to the age range 4–16 years in order to allow a direct comparison with the 1993 WA CHS, almost one in five Aboriginal students (19.1 per cent; CI: 17.0%–21.3%) were rated at ‘far below age level’ overall academic performance by their teachers. The corresponding proportion for all students surveyed in the 1993 WA CHS was 2.9 per cent (CI: 2.1%–3.9%). A little less than one per cent (0.7 per cent; CI: 0.5%–0.9%) of Aboriginal students aged 4–16 years were rated at ‘far above age level’ overall academic performance, compared with 5.9 per cent (CI: 4.7%–7.3%) of all students aged 4–16 years (Figure 5.2).



**FIGURE 5.2:** STUDENTS AGED 4–16 YEARS — DISTRIBUTION OF TEACHER RATED OVERALL ACADEMIC PERFORMANCE, WAACHS COMPARED WITH WA CHS



Source: Tables 5.2, 5.3

## DEFINING ACADEMIC PERFORMANCE

In this publication, ‘low academic performance’ is defined by grouping those students who were ‘far below age level’ or ‘somewhat below age level’ using teacher ratings of overall academic performance. The remaining students who were ‘at age level’, ‘somewhat above age level’ or ‘far above age level’ are classified as having ‘average or above average academic performance’.

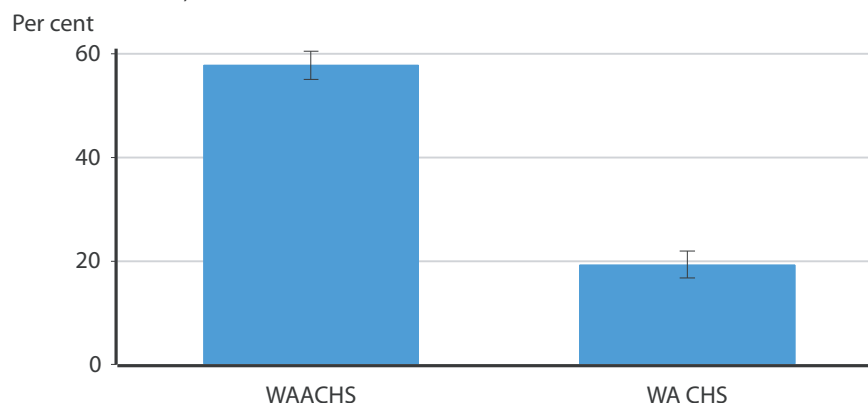
Using this definition, around six in ten Aboriginal students aged 4–17 years (57.5 per cent; CI: 54.7%–60.3%) were rated by their teachers as having low academic performance (Table 5.4).

The 1993 CHS of all Western Australian children estimated that around one in five students aged 4–16 years (19.2 per cent; CI: 16.7%–21.9%) in the general population were rated at low academic performance. In comparison, the proportion of Aboriginal students aged 4–16 years with low academic performance was a significantly higher 57.8 per cent (CI: 55.1%–60.6%) (Figure 5.3).

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**FIGURE 5.3:** STUDENTS AGED 4–16 YEARS — PROPORTION AT LOW ACADEMIC PERFORMANCE, WAACHS COMPARED WITH WA CHS



Source: Tables 5.5, 5.6

## ABORIGINAL EDUCATIONAL ATTAINMENT: AUSTRALIAN RESEARCH

Findings from the WAACHS detailing lower levels of academic performance of Aboriginal students are consistent with other Australian research and data sources relating to Aboriginal educational attainment.

### Comparisons with other Western Australian data

Consistent with findings reported throughout this chapter, the WALNA data relating to all Western Australian Aboriginal students gathered from 2000–2004 show that a substantially lower proportion of Aboriginal students achieved the national benchmarks in numeracy, reading, writing and spelling testing compared with all students in Years 3, 5 and 7.

Comparison of Year 3 student assessment data show that the proportions of Aboriginal students meeting the national benchmarks were around 15–35 percentage points lower than the proportion of all students in Western Australia. Similarly in Year 5 testing, the proportions of Aboriginal students meeting the benchmarks were in the range of 21–37 percentage points lower than for all students. The inequality between Aboriginal and all students was even more marked in Year 7 testing over the same time frame, with around 30–44 percentage point differences in the proportion meeting the reading, writing, spelling and numeracy benchmarks. In Year 7 testing in 2004, less than half of all Aboriginal students achieved each of the benchmarks. The best results among Aboriginal students occurring in the reading and spelling tests, where 43 per cent met the national benchmark. Comparable proportions for all students ranged from around 76–84 per cent achieving the benchmark figure in these subject areas.<sup>2</sup>

*Continued . . . .*



**ABORIGINAL EDUCATIONAL ATTAINMENT: AUSTRALIAN RESEARCH** (continued)

When the 2004 data are analysed by individual WALNA test, the difference in the proportion of Aboriginal students achieving the spelling benchmark in comparison to all students remains relatively stable, at around 34 percentage points in each of the three testing years. For the reading tests, the gap in performance between Aboriginal students and all students increased from 16 percentage points in Year 3, to 25 percentage points in Year 5 and 40 percentage points in Year 7. The corresponding gap for the numeracy and writing tests also increased, though not as dramatically as for the reading tests. The gap in writing performance increased from around 30 percentage points in Year 3 to 36 percentage points in Year 7, while the performance gap for numeracy was 27 percentage points in Year 3 and 41 percentage points in Year 7.

**PROPORTION OF WESTERN AUSTRALIAN STUDENTS ACHIEVING THE NATIONAL BENCHMARK, 2001–2004**

WALNA test	Population group	2001	2002	2003	2004
Year 3 testing (%)					
Reading	Aboriginal students	76.6	77.5	78.3	79.5
	All students	93.3	94.4	94.7	95.0
Writing	Aboriginal students	52.1	54.7	57.2	56.6
	All students	84.0	85.6	85.8	86.4
Spelling	Aboriginal students	47.5	51.5	46.8	46.9
	All students	81.9	84.8	80.7	81.4
Numeracy	Aboriginal students	70.5	57.8	60.8	60.9
	All students	91.0	86.7	88.7	88.3
Year 5 testing (%)					
Reading	Aboriginal students	71.3	73.0	70.7	67.0
	All students	93.5	94.4	93.0	92.4
Writing	Aboriginal students	49.5	56.9	55.1	56.0
	All students	82.7	87.6	87.1	86.8
Spelling	Aboriginal students	49.7	47.0	50.3	48.5
	All students	81.8	80.5	82.7	82.0
Numeracy	Aboriginal students	56.9	48.8	59.2	55.0
	All students	88.2	85.9	89.2	87.4
Year 7 testing (%)					
Reading	Aboriginal students	40.0	42.4	45.9	43.0
	All students	83.9	84.9	83.5	83.3
Writing	Aboriginal students	38.9	38.0	41.6	40.0
	All students	78.2	77.7	77.3	76.4
Spelling	Aboriginal students	46.0	40.6	50.3	43.4
	All students	79.6	76.8	80.7	77.3
Numeracy	Aboriginal students	35.5	38.4	39.8	38.5
	All students	77.8	81.0	79.4	79.5

Source: Western Australian Department of Education and Training (unpublished data)

Continued . . .



**ABORIGINAL EDUCATIONAL ATTAINMENT: AUSTRALIAN RESEARCH** *(continued)***Interstate comparisons**

National literacy and numeracy benchmarks are part of an agreement by all Australian Education Ministers, through the Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA), to enable each State and Territory to annually report aggregate student achievement data based on a common set of measurement standards. This allows for comparisons to be made across jurisdictions and for national level reporting. Data was first reported for 1999, and is currently available for children in Years 3, 5 and 7. WALNA data is the Western Australian component of the national benchmark testing.<sup>3</sup>

While there were variations across the states in terms of the proportion of students achieving the national benchmarks, the proportion of Aboriginal students meeting the benchmark in each test was consistently lower when compared with the performance of all students.

Across all tests and testing years, the greatest differences in performance levels between Aboriginal students and all students were observed in the Northern Territory and Western Australia. In Year 7 writing, reading and numeracy testing, the difference in the proportion of Aboriginal and all students in these two jurisdictions meeting the benchmark was between 30 and 40 percentage points.

Also evident in these data were marked declines in the proportion of Aboriginal students achieving the national benchmark between Year 3 and Year 7 testing across all Australian states. This result was most noticeable in numeracy testing, where the decline in the proportion of Aboriginal students achieving the numeracy benchmark from Year 3 to Year 7 ranged between 15 to 50 percentage points.

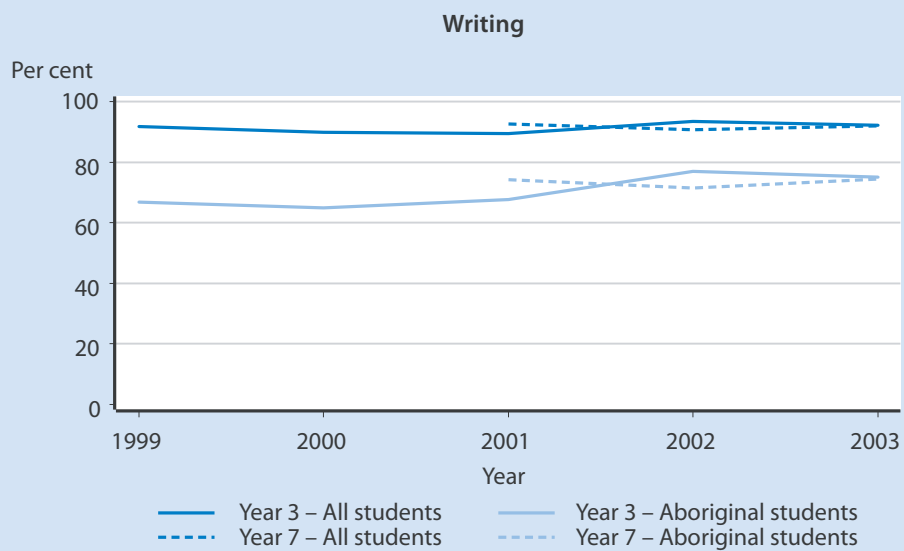
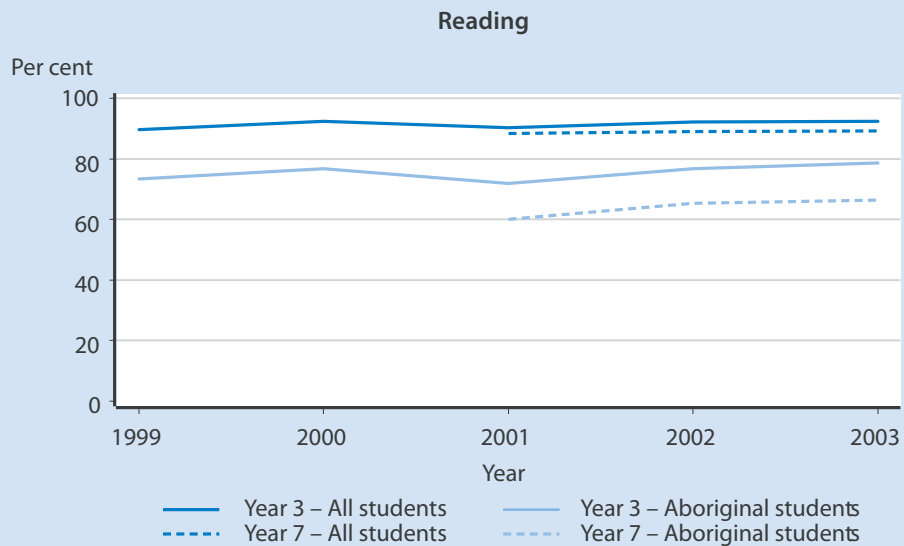
Time series data covering the period 1999–2003 also allow Australia-wide comparisons of the performance of Aboriginal and all students in reading, writing and numeracy testing and an assessment of how these are changing over time. The following figure shows the proportion of Aboriginal students achieving the benchmarks in Year 3 and Year 7 testing. The corresponding proportion for all Australian students is also provided for comparison. Clearly evident from these data is the lower level of performance of Aboriginal students relative to all Australian students. This difference was most pronounced in Year 7 numeracy and reading testing (The Year 7 benchmark data has only been available nationally since 2001). Moreover, there has been little or no progress in closing the gap in academic performance levels in primary school in recent years.

*Continued . . . .*



**ABORIGINAL EDUCATIONAL ATTAINMENT: AUSTRALIAN RESEARCH** *(continued)*

AUSTRALIAN STUDENTS — PROPORTION ACHIEVING THE NATIONAL BENCHMARKS IN READING, WRITING AND NUMERACY, BY YEAR



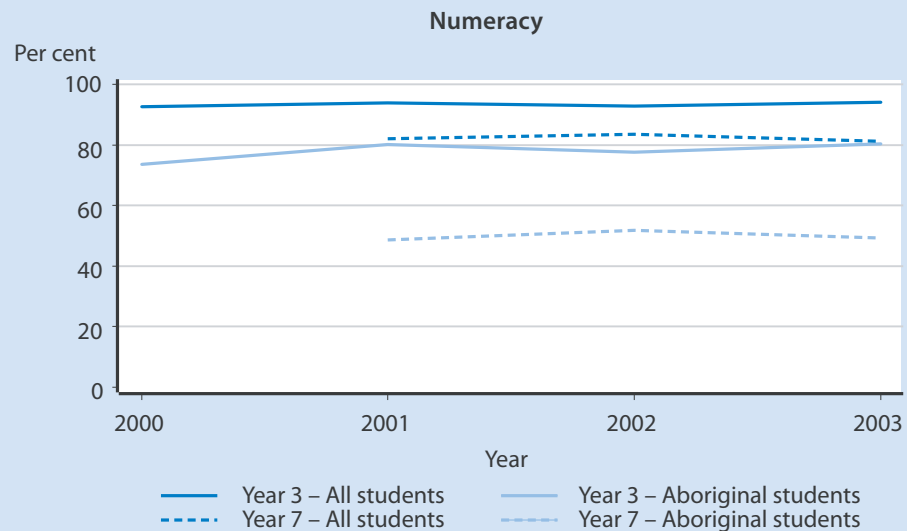
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## ABORIGINAL EDUCATIONAL ATTAINMENT: AUSTRALIAN RESEARCH (continued)

AUSTRALIAN STUDENTS — PROPORTION ACHIEVING THE NATIONAL BENCHMARKS IN READING, WRITING AND NUMERACY, BY YEAR (continued)



### National comparisons

The 1996 *National School English Literacy Survey* (NSELS) collected information on a wide range of literacy achievements of Year 3 and Year 5 students in Australian schools.<sup>4,5</sup> Achievement was assessed in various aspects of literacy including reading, writing, spelling, listening and viewing.

As part of this survey, a Special Indigenous Sample (SIS) was also collected. This consisted of sampling students in schools reporting at least five Aboriginal students in both Year 3 and Year 5. For this reason, the SIS was not a nationally representative sample of all Aboriginal students and so direct comparisons between Aboriginal students and all students cannot be made. Rather, the SIS provides a picture of the literacy achievement of a subgroup of Aboriginal students living in predominantly rural and remote areas where Aboriginal students are more concentrated. WAACHS analysis of academic performance by relative isolation, suggests that the academic performance of Aboriginal students is lower in more isolated areas, so this should be borne in mind when interpreting the results of the SIS survey.

Findings from the NSELS highlighted that students in the SIS have very low average levels of English literacy achievement. Survey results showed that in terms of English literacy achievement, students in the SIS were three to four year levels below other students.<sup>5</sup> Aboriginal students also faced barriers in achieving national standards in reading and writing. Less than 20 per cent of Year 3 Aboriginal students in the SIS achieved the identified reading standards and 29 per cent met the writing standards. In contrast, over 70 per cent of all surveyed students in Year 3 achieved the reading and writing standards. The disparity in educational outcomes between Aboriginal students and all students persisted in Year 5 testing, where 23 per cent of Aboriginal students met the identified performance standard in reading and 24 per cent in writing. The comparable proportions of all students achieving the benchmarks was over 75 per cent in both reading and writing.<sup>4</sup>

*Continued . . . .*



**ABORIGINAL EDUCATIONAL ATTAINMENT: AUSTRALIAN RESEARCH** *(continued)*

While students in the SIS with the highest level of literacy skill in Year 3 appeared to make good progress between Year 3 and Year 5, the NSELS found consistent evidence across all aspects of literacy that those Aboriginal students with very low levels of literacy skill in Year 3 made little or no progress by Year 5.

**TEACHER RATED OVERALL ACADEMIC PERFORMANCE AND DEMOGRAPHIC FACTORS**

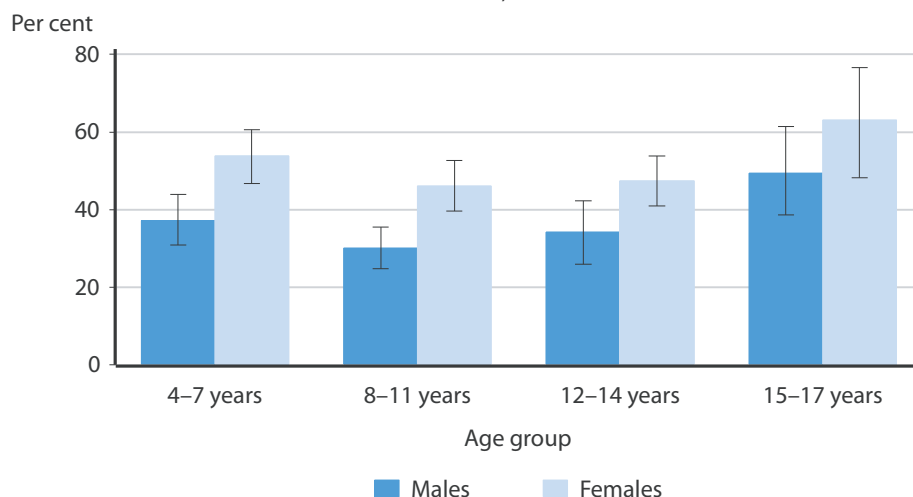
The following sections describe the relationship between teacher rated academic performance and student’s sex, year at school, LORI and category of school.

**SEX AND AGE OF STUDENT**

Over one half of female Aboriginal students were rated at average or above average academic performance based on teacher reports (50.4 per cent; CI: 46.5%–54.2%). This was significantly higher than the corresponding proportion for males (35.0 per cent; CI: 31.6%–38.6%) (Table 5.7).

The highest proportion of students rated at average or above average academic performance was females aged 15-17 years (63.1 per cent; CI: 48.3%–76.6%). Across all age groups, a higher proportion of females were rated at average or above average academic performance relative to male students, although these differences only reached statistical significance for students aged 4-7 years and 8-11 years (Figure 5.4).

**FIGURE 5.4:** ABORIGINAL STUDENTS AGED 4-17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY AGE GROUP AND SEX



Source: Table 5.8

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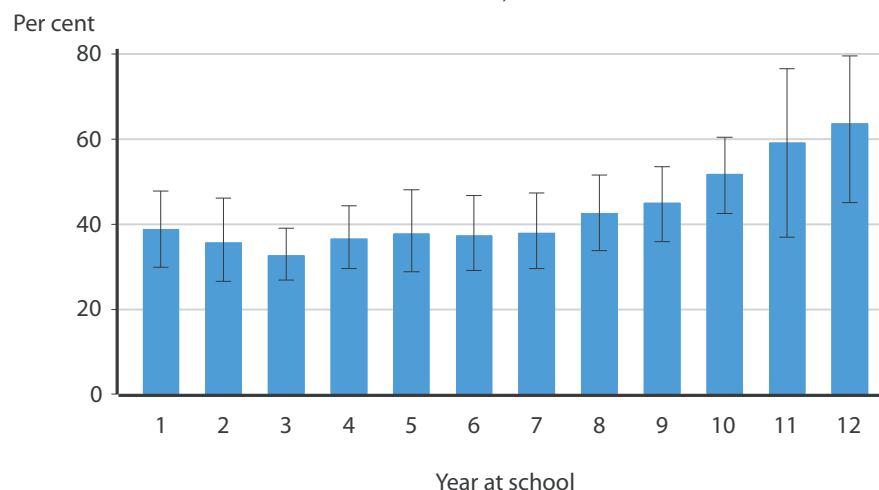




## YEAR AT SCHOOL

The proportion of Aboriginal students in Years 1 to 9 rated at average or above average academic performance ranged between 33 per cent and 45 per cent. The corresponding proportion of students in Years 10 to 12 was markedly higher at around 52 per cent to 64 per cent (Figure 5.5). A possible reason driving this result is that the poorest performing students are less likely to stay on at school beyond the last year of compulsory schooling (Year 10). This finding can also be placed in the context of lower school participation of Aboriginal students in later school grades. As noted in Table 2.3 in *Chapter 2 – Educating Aboriginal children – Issues, policy and history*, the proportion of Aboriginal students that attended school declined markedly in Years 11 and 12. Less than one quarter (24.0 per cent; CI: 17.9%–30.7%) of all Aboriginal children aged 17 years were attending school.

**FIGURE 5.5:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY YEAR AT SCHOOL



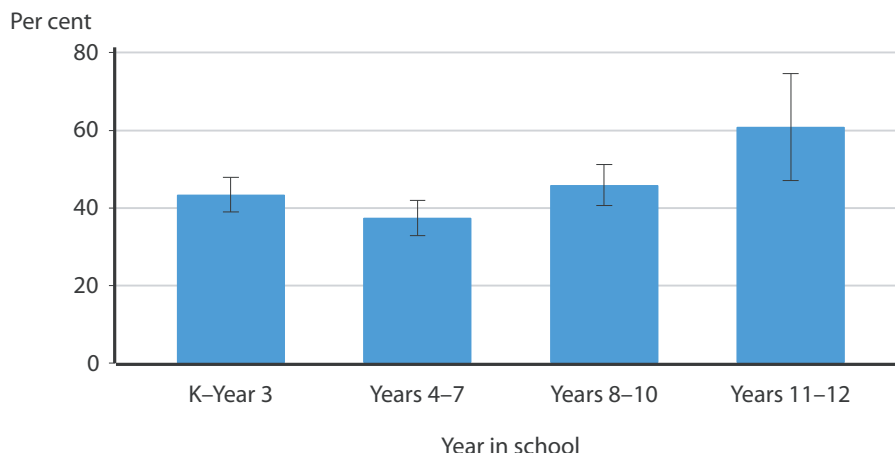
Source: Table 5.9

The level of academic performance of Aboriginal students has been further analysed by year at school (Figure 5.6). Over six in ten students (60.8 per cent; CI: 47.0%–74.7%) in Years 11 and 12 were rated at average or above average academic performance. The corresponding proportion for students in Years 4–7 was significantly lower at 37.3 per cent (CI: 32.9%–41.9%).

When interpreting academic performance by year at school, it should be noted that apparent retention rates for Aboriginal students from Year 8 onwards fall even though this group of students are still of compulsory school attendance age. Data obtained from the Western Australian Department of Education and Training (DET) indicate that in 2005, the apparent progression rates for Aboriginal students into Year 8 (from Year 7) declined by a little over 1 percentage point. The corresponding fall in Year 9 (from Year 8) was around 5 percentage points.<sup>6</sup> If it is the case that poorest performing students are more likely to leave the school system than better performing students, then this will have a slight impact on the reported data in Figures 5.5 and 5.6, as only Aboriginal students remaining in the school system were able to participate in the survey and receive teacher ratings.



**FIGURE 5.6:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY YEAR LEVEL OF STUDENT

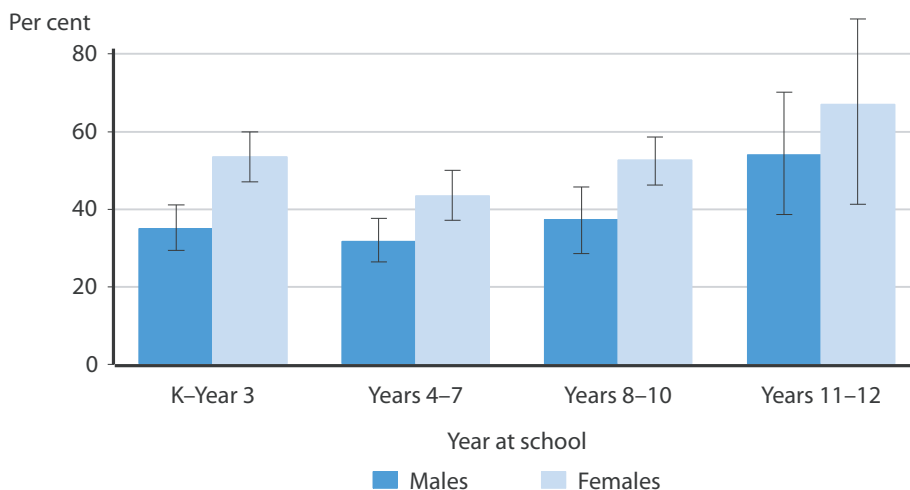


Source: Table 5.10

### YEAR AT SCHOOL AND SEX

Almost seven in ten (67.0 per cent; CI: 41.3%–89.0%) female students in Years 11 and 12 were rated at average or above average academic performance. In comparison to male students, a higher proportion of female students were rated at average or above average academic performance across all year levels, although this difference was only significant for students in the kindergarten to Year 3 and Years 8–10 groups (Figure 5.7).

**FIGURE 5.7:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY YEAR AT SCHOOL AND SEX



Source: Table 5.11

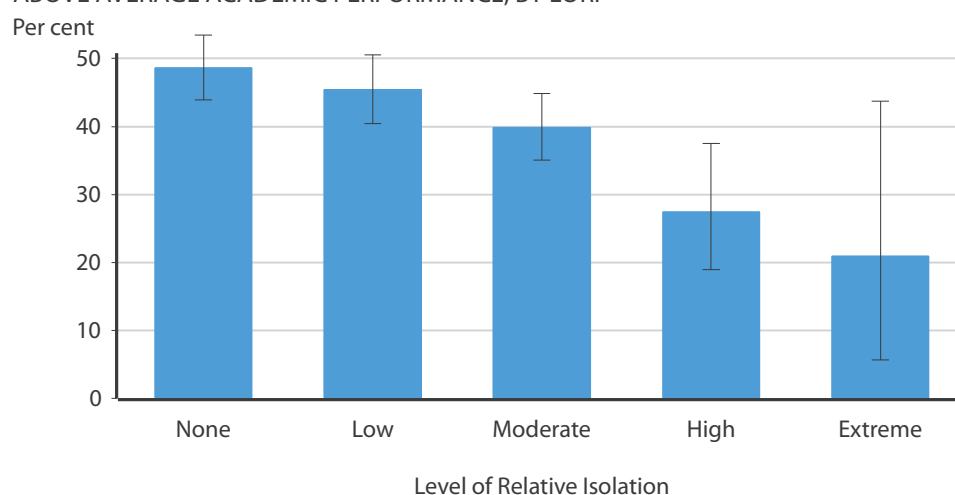
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## LEVEL OF RELATIVE ISOLATION

The academic performance of Aboriginal students varied across levels of relative isolation. The proportion of students rated at average or above average academic performance declined as levels of relative isolation increased. A little under one half (48.6 per cent; CI: 43.9 %–53.4%) of Aboriginal students were found to be at average or above average academic performance in the Perth metropolitan area. The corresponding proportion in areas of extreme isolation was 20.9 per cent (CI: 5.7%–43.7%) (Figure 5.8).

**FIGURE 5.8:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY LORI



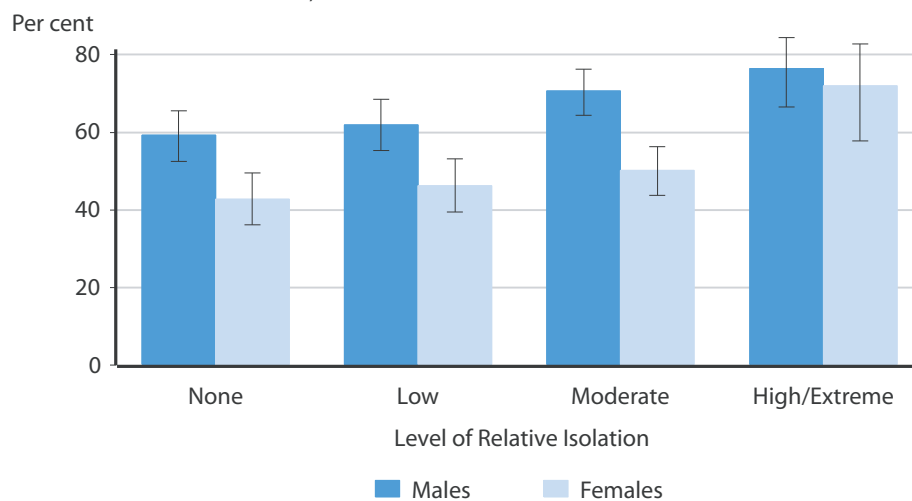
Source: Table 5.12

## LEVEL OF RELATIVE ISOLATION AND SEX

Within each level of relative isolation, a higher proportion of male Aboriginal students were at low academic performance compared with female students. This difference was most prominent in areas of moderate isolation, where 70.6 per cent (CI: 64.4%–76.3%) of male students were rated at low academic performance compared with half of female students (50.2 per cent; CI: 43.7%–56.3%) (Figure 5.9).



**FIGURE 5.9:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT LOW ACADEMIC PERFORMANCE, BY LORI AND SEX



Source: Table 5.13

#### LEVEL OF RELATIVE ISOLATION AND AGE

Across all levels of relative isolation, there was a trend towards a higher proportion of Aboriginal students aged 4–11 years being rated at low academic performance than students aged 12–17 years, although this difference was not statistically significant (Table 5.14).

#### LEVEL OF RELATIVE ISOLATION AND YEAR AT SCHOOL

Aboriginal students academic performance was also analysed by LORI and year at school. No significant association was found between LORI and year at school and academic performance.

#### CATEGORY OF SCHOOL

The academic performance of Aboriginal students was also analysed by the category of school that they attended, but no association was found (Table 5.15).

Analysis of student performance by school’s Socioeconomic Index (SEI) score (see *Glossary*) is reported in Chapter 6.

5



## ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS: A COMPARISON WITH SURVEY RESULTS FROM THE 1960s

The WAACHS findings of considerable educational disparity between Aboriginal students and all students in Western Australia can be placed in the context of survey findings from 1965–66,<sup>7</sup> where the academic attainments of 1,084 ‘part-Aboriginal children’ (this was the language employed at the time to describe the Aboriginal children included in the 1965–66 survey) attending schools in the south-west region of Western Australia were compared with 273 European children attending Belmont High School. Teachers of surveyed students rated students on a three-point scale — above average, average or below average. Results for the Aboriginal and Belmont High School students are presented in the table below.

WESTERN AUSTRALIAN STUDENTS — TEACHER RATINGS OF ACADEMIC PERFORMANCE, 1965–1966

Subject	Rating	Aboriginal students		Belmont High School students	
		Number	%	Number	%
Reading	Above average	62	6	93	34
	Average	495	49	128	47
	Below average	450	45	52	19
English	Above average	48	5	87	35
	Average	451	47	131	47
	Below average	455	48	52	18
Spelling	Above average	111	12	111	41
	Average	443	48	107	40
	Below average	365	40	51	19
Arithmetic	Above average	56	6	105	39
	Average	386	39	100	37
	Below average	548	55	65	24
General knowledge	Above average	32	3	89	35
	Average	433	45	130	48
	Below average	500	52	44	17

Results from the 1965–66 survey show that between 40 and 55 per cent of Aboriginal students were rated by their teachers as below average in reading, English, spelling, arithmetic and general knowledge. For the European students, the corresponding proportions were much lower, ranging between 17 per cent and 24 per cent.

As noted in Chapter 2, the widespread exclusion of Aboriginal students from education was practiced until the 1950s. In the 1940s, one estimate put the proportion of Aboriginal children throughout Australia attending state schools at 7 per cent, with a further 25 per cent receiving any education at all (most of these in missions).<sup>8</sup> Much has changed since the 1960s in terms of Aboriginal participation in education, with almost all Aboriginal children of school age enrolled in school. Educational curricula and delivery have changed markedly for all children.

*Continued . . . .*



### ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS: A COMPARISON WITH SURVEY RESULTS FROM THE 1960s (*continued*)

While results from the 1965–66 survey are not directly comparable with findings from the WAACHS, it is significant that the proportion of Aboriginal students rated at below age level by their teachers has changed little between the mid-1960s and the present day. In 1965–66, between 40 and 55 per cent of Aboriginal students in the south-west region of Western Australia were rated by their teachers as below age level in various measures of academic performance. In comparison, the WAACHS found that the proportion of all Western Australian Aboriginal students rated at below age level in various measures of academic performance ranges between 57 and 59 per cent.

### MODELLING OVERALL ACADEMIC PERFORMANCE – ASSOCIATIONS WITH DEMOGRAPHIC FACTORS

The association between the demographic variables analysed above and ratings of low academic performance was further investigated using multivariate logistic regression modelling (see *Glossary*).

A model that tested the association between academic performance and the four demographic variables analysed above (sex, age, LORI and category of school) was estimated. All four demographic factors were found to be significant predictors of the likelihood of low academic performance. Figure 5.10 presents the results of this model.

**Sex.** Male students were over twice as likely (Odds Ratio 2.09; CI: 1.70–2.57) to be rated at low academic performance compared with females.

**Age.** With regard to age differences in academic performance, 12–14 year-olds were around 1.5 times more likely (Odds Ratio 1.53; CI: 1.13–2.07) to be rated as having low academic performance relative to students aged 4–7 years.

**Level of Relative Isolation.** Relative to Aboriginal students residing in the Perth metropolitan area, Aboriginal students living in areas of high relative isolation were three times as likely (Odds Ratio 3.01; CI: 1.80–5.05) to be rated at low academic performance. The corresponding odds ratio for students living in extremely isolated areas was 3.51 (CI: 1.90–6.51).

**Category of school.** Students attending Independent schools were almost twice as likely (Odds ratio 1.86; CI: 1.06–3.26) to be rated at low academic performance, compared with students attending government schools. However, as noted in *Chapter 3 – Western Australian Schools*, a very small proportion of Aboriginal students attended Independent schools (2.3 per cent; CI: 1.2%–3.6%). There are also differences between Government, Catholic and Independent schools in terms of their location (i.e. relative isolation) and the student populations they serve, that may also be driving this result. Given the substantial differences in demographic characteristics between the student populations in Government, Catholic and Independent schools, the model results do not imply that one sector is doing better than any other for Aboriginal children.



**FIGURE 5.10:** ABORIGINAL STUDENTS AGED 4–17 YEARS — LIKELIHOOD OF LOW ACADEMIC PERFORMANCE ASSOCIATED WITH DEMOGRAPHIC FACTORS

<i>Parameter</i>	<i>Odds Ratio</i>	<i>95% CI</i>
Sex—		
Male	2.09	(1.70 - 2.57)
Female	1.00	
Age group—		
4–7 years	1.00	
8–11 years	1.36	(1.06 - 1.74)
12–14 years	1.53	(1.13 - 2.07)
15–17 years	0.70	(0.46 - 1.06)
Level of Relative Isolation—		
None	1.00	
Low	0.97	(0.72 - 1.30)
Moderate	1.42	(0.98 - 2.06)
High	3.01	(1.80 - 5.05)
Extreme	3.51	(1.90 - 6.51)
Category of school—		
Government	1.00	
Aboriginal community governed school	0.96	(0.41 - 2.28)
Catholic	1.08	(0.74 - 1.57)
Independent	1.86	(1.06 - 3.26)

## MATRICES AND WORD DEFINITIONS TESTING

The survey data also allowed for some direct assessment of verbal and non-verbal performances of the survey students. Teachers administered short assessments of visuo-spatial reasoning (Matrices) and English Word Definitions to students at the time of the survey (see commentary box entitled *Verbal and non-verbal performance measures*).



## VERBAL AND NON-VERBAL PERFORMANCE MEASURES

The 1993 *Western Australian Child Health Survey* (WA CHS) used two measures of verbal and non-verbal performance administered by teachers to the survey students.<sup>1</sup> Identical measures, procedures and normative standards were used in the WAACHS. These measures are taken from the 1983 *British Ability Scales*.<sup>9</sup>

### Matrices and Word Definitions tests

The first test was a Matrices test designed to measure non-verbal visuo-spatial reasoning. This test has 11 items where students were asked to complete a pattern or design. The second test was a Word Definitions test in which students were asked to provide definitions for twenty words of progressive difficulty.

The raw score of each test can be converted into an ability score as well as a centile score, based on a scoring algorithm that takes into account the test score and the age of the child at the time of the test. The centile score can range from 0 to 100 and provides an indication of the child's performance in relation to other children. For example, a centile score of 75 indicates that, on average, 75 children out of 100 would score at the same level or below, and 25 out of 100 would score higher.

In this survey, the centile score is the primary measure used to assess the Matrices test and Word Definitions abilities of the students.

The selection of English language word definitions was made in consultation with the survey's Aboriginal Steering Committee and the Education Reference Group that supported the schools component of the survey. Some students speak English as a second (or third) language – approximately 12.9 per cent (CI: 10.9%–15.1%) of primary carers reported that at least one child in their care was conversant in an Aboriginal language.<sup>10</sup> English, however, remains the primary language of instruction in Western Australia and some indication of student proficiency in English was seen to be important.

The provision of a non-verbal measure (i.e. Matrices) was also seen to be desirable as it was less likely to be influenced by proficiency in English. These measures were also selected because identical measures were previously used in the 1993 WA CHS.<sup>1</sup>

### Matrices and Word Definitions – Response issues

Of the students for whom WAACHS obtained school and teacher information, 82.0 per cent (CI: 79.9%–83.9%) had completed a Matrices test, while slightly less students had completed a Word Definitions test (78.9 per cent; CI: 76.6%–81.1%). There are several contributing factors to non-completion of tests by surveyed students.

Unlike the Principal's and Teacher's questionnaires, the Matrices and Word Definitions tests required the presence of the selected child within the school before the tests could be administered. Each child would generally be taken outside or to a room away from the rest of the class by the classroom teacher and have both tests administered. This process could take up to 30 minutes per child and required

*Continued . . .*





**VERBAL AND NON-VERBAL PERFORMANCE MEASURES** *(continued)*

arrangements for supervision of the rest of the class. The testing had to be conducted individually to ensure students could not influence each other's response.

In some schools, particularly those with larger numbers of Aboriginal children, this may have represented an extra difficulty for teachers over and above the requirement for information not involving the direct participation of each child.

Additionally, there were issues of both general absenteeism and mobility between schools that meant the selected student was not always present at a particular school. Also, because the school survey collection spanned more than one academic year, the mobility issue was compounded (e.g. moving from primary to high school; or finishing school altogether). These and other issues related to non-response are discussed in Chapter 1.

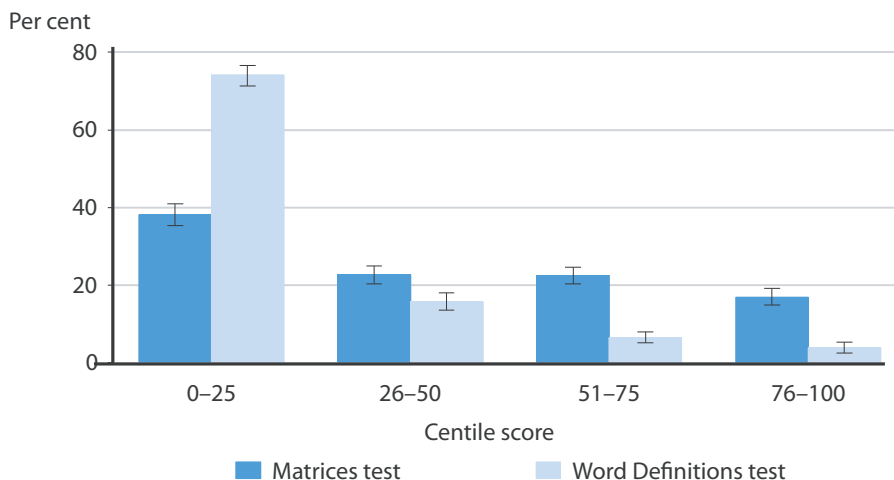
As previously noted (see commentary box entitled *Verbal and non-verbal performance measures*) it was not possible to collect Matrices and Word definitions tests for all surveyed students. For those Aboriginal students who completed a Matrices test, 38.1 per cent (CI: 35.3%–41.0%) scored in the 25th centile or below, while 16.9 per cent (CI: 14.9%–19.1%) scored in the 76th centile or above (Table 5.16).

Compared to the Matrices test results, Aboriginal students performed to a lower standard in the Word Definitions test. Almost three-quarters (74.1 per cent; CI: 71.3%–76.6%) of students who completed a Word Definitions test scored in the 25th centile or below. Less than four per cent of Aboriginal students scored in the 76th centile or above (3.8 per cent; CI: 2.5%–5.3%) (Figure 5.11).

The same Matrices and Word Definitions tests were administered to all Western Australian students in the 1993 WA CHS. However, in the 1993 WA CHS only students aged 5–16 years completed these two tests. The distribution of test results for all students is shown in Figure 5.12. Western Australian students performed to a higher standard in the Matrices test relative to the Word Definitions test. An estimated 35.1 per cent of students (CI: 32.3%–38.0%) scored in the 76th centile or above in the Matrices test. The corresponding proportion for the Word Definitions test was significantly lower at 18.3 per cent (CI: 15.8%–21.1%).

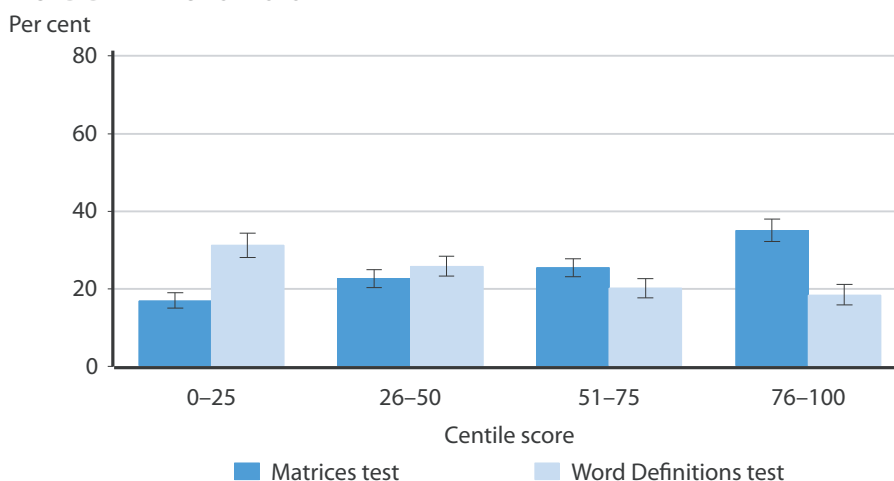


**FIGURE 5.11: ABORIGINAL STUDENTS AGED 4–17 YEARS — CENTILE SCORES FOR MATRICES AND WORD DEFINITIONS TESTS**



Source: Tables 5.16 & 5.17

**FIGURE 5.12: ALL STUDENTS AGED 5–16 YEARS — CENTILE SCORES FOR MATRICES AND WORD DEFINITIONS TESTS**



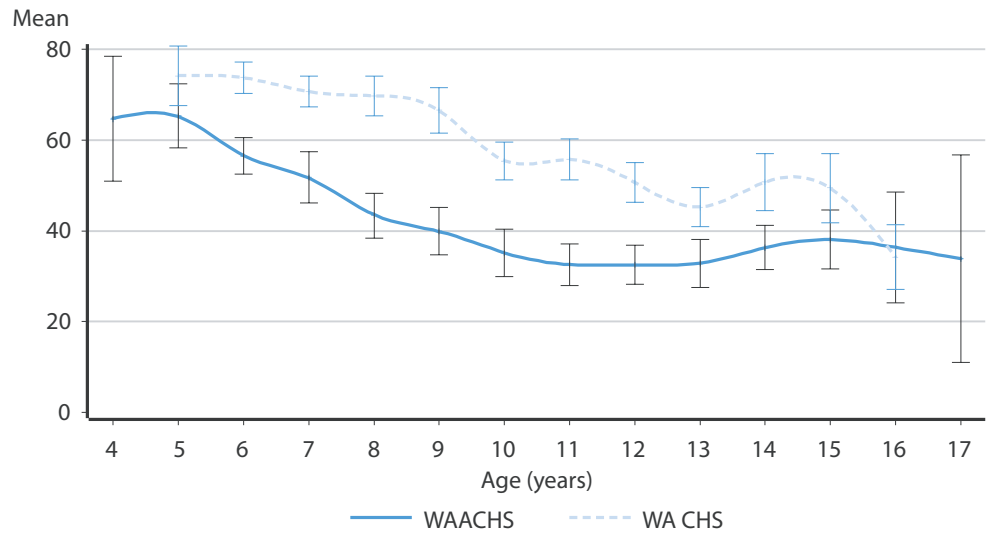
Source: Tables 5.18 & 5.19

Further evidence of the higher level of achievement of Aboriginal students in the Matrices test relative to the Word Definitions test is provided through analysis of the mean centile scores. The mean centile score for the Matrices test was 42 (CI: 40–44). This was significantly higher than the mean centile score for the Words Definitions test (19; CI: 17–20) (Table 5.20).

In comparison, all students scored significantly higher in both the Matrices test (59; CI: 57–61) and the Word Definitions test (45; CI: 43–47) (Table 5.21). These differences between Aboriginal and all students are also evident when further analysed by age (Figures 5.13 and 5.14).

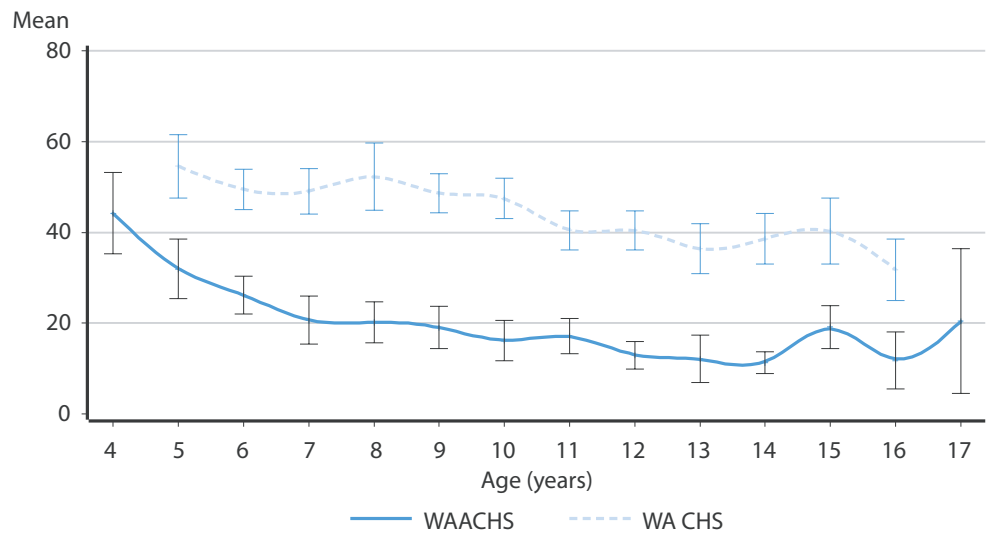


**FIGURE 5.13:** STUDENTS AGED 4–17 YEARS — MEAN MATRICES CENTILE SCORES, BY AGE, WAACHS COMPARED WITH WA CHS



Source: Tables 5.20 & 5.21

**FIGURE 5.14:** STUDENTS AGED 4–17 YEARS — MEAN WORD DEFINITIONS CENTILE SCORES, BY AGE, WAACHS COMPARED WITH WA CHS



Source: Tables 5.20 & 5.21

It was also observed that the mean centile score for Aboriginal students in both tests declines markedly from around age 4 or 5 years. In contrast the mean centile score for all students tends to decline at a later age — between 9 and 10 years.



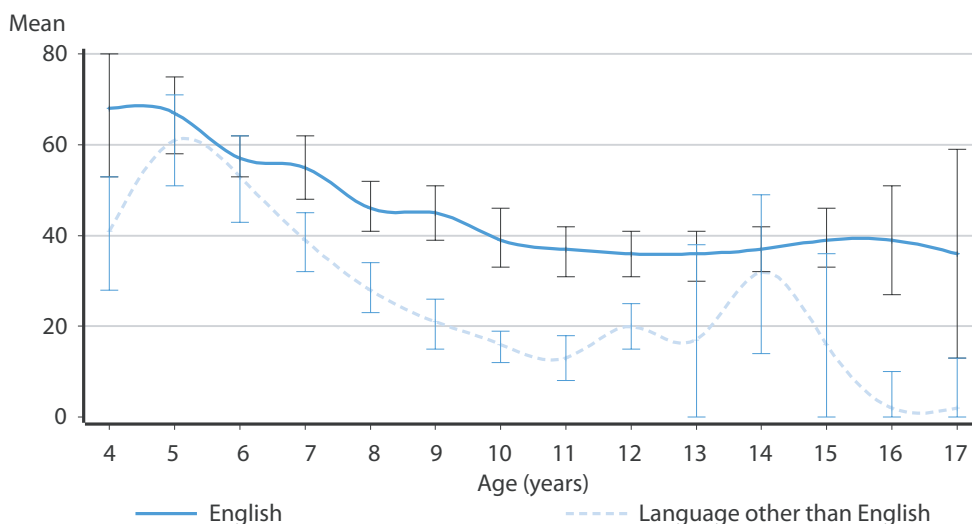
## MATRICES AND WORD DEFINITIONS TEST SCORES BY LANGUAGE SPOKEN IN THE CLASSROOM

Recognising potential issues surrounding the appropriateness of English language Word Definitions tests for students who do not speak English as a first language, further analysis of the Matrices and Word Definitions test scores by language spoken in the classroom was also undertaken. For further information on language spoken see *Main language spoken* in the *Glossary*.

For Aboriginal students whose main language spoken in the classroom was English, 71.5 per cent (CI: 68.4%–74.5%) scored in the 25th centile or below on the Word Definitions test. A significantly higher proportion (87.6 per cent; CI: 82.4%–91.8%) whose main language spoken in the classroom was Aboriginal English scored in the lowest 25th centile band. This finding also extended to those students whose main language was Kriol/Creole, where the corresponding proportion was 91.8 per cent (CI: 81.5%–97.9%) (Table 5.22).

Mean centile scores for both tests have also been analysed by language spoken. Aboriginal students whose main language spoken in the classroom was English scored significantly higher in both tests, relative to students who spoke a language other than English. The mean centile score in the Matrices test for students who spoke English was 44 (CI: 42–46), while for students who spoke a language other than English the mean centile score was 29 (CI: 26–31) (Table 5.23). The mean centile scores for the Word Definitions test was 20 (CI: 19–22) for students who spoke English and 11 (CI: 8–13) for students who spoke a language other than English (Table 5.24). Further analysis of mean centile scores by age also shows higher average scores for students who spoke English across most age groups. The mean score in both tests also tended to decline with age, regardless of the language spoken in the classroom (Figures 5.15 and 5.16).

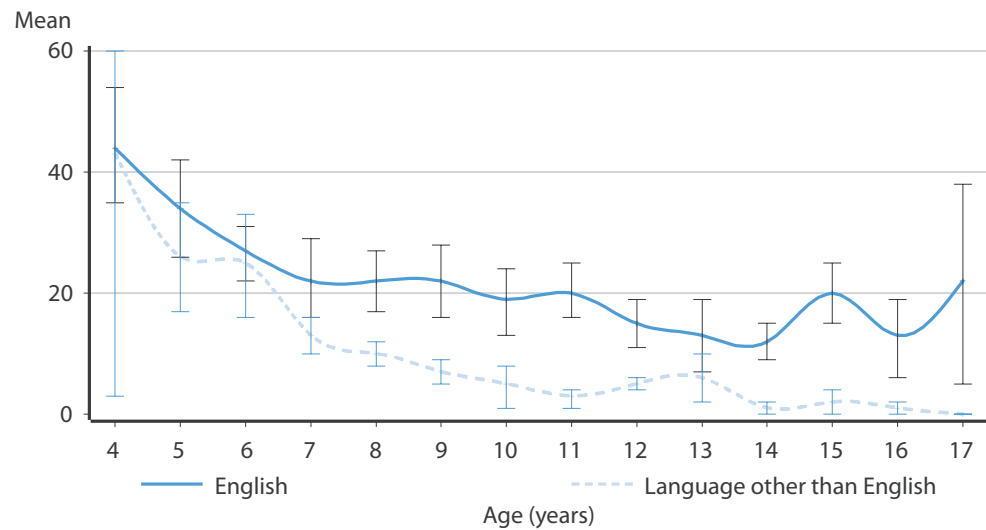
**FIGURE 5.15:** ABORIGINAL STUDENTS AGED 4–17 YEARS — MEAN MATRICES CENTILE SCORE, BY AGE AND LANGUAGE SPOKEN IN THE CLASSROOM



Source: Table 5.23



**FIGURE 5.16:** ABORIGINAL STUDENTS AGED 4–17 YEARS — MEAN WORD DEFINITIONS CENTILE SCORE, BY AGE AND LANGUAGE SPOKEN IN THE CLASSROOM



Source: Table 5.24

The gap in performance between Aboriginal students and all students can not be attributed solely to language spoken by the student. While there are differences in performance between Aboriginal students who speak English and Aboriginal students who speak a language other than English, a comparison of the results of the Matrices and Word Definitions test restricted to Aboriginal students who speak English with the corresponding results for all Aboriginal students (Tables 5.20, 5.22 and 5.23) reveals no significant difference in performance across the two groups.

These findings for Aboriginal students can also be placed in the context of data reported in the 2003–2004 Western Australian Department of Education and Training *Annual Report*.<sup>11</sup> National benchmark testing covering the period 1999–2004 showed little difference in the proportion of students with a Language Background Other Than English (LBOTE) achieving the reading, writing, spelling and numeracy benchmarks compared with all students. Table 5.25 presents the average difference in the proportion meeting the benchmark for the two groups in each test over the period 1999–2004. As shown in this table, the average difference in the four tests in Years 3, 5 and 7 testing between students from a language background other than English and all students ranged between 1–9 percentage points. The corresponding differences between Aboriginal students and all students were of a much greater magnitude, where the differences in the proportion achieving the benchmarks in Year 7 testing in 2004 were between 30 and 44 percentage points (see commentary box entitled *Aboriginal educational attainment: Australian research*).



## ABORIGINAL STUDENTS AND THE EARLY YEARS OF SCHOOL

The Matrices and Word Definitions tests administered in the WAACHS are broad indicators of the verbal and non-verbal performances of Aboriginal students. The centile scores analysed in this chapter are best appreciated in terms of their:

- ◆ low level on entry to school and disparity when compared with all Western Australian students
- ◆ pattern of rapid decline with age
- ◆ association with other measures of school performance.

Identical measures have been used for both Aboriginal and all Western Australian students.

The general level of performance of Aboriginal students on both the Matrices and Word Definitions tests is consistently lower than all Western Australian students across the entire period of development from ages 4–16 years. This difference is substantial, it is persistent throughout all age groups, and even after accounting for students whose first language is not English, it remains at the same level for both measures.

The highest levels of performance for Aboriginal students on these measures is observed at age 4 years and performances thereafter rapidly decline through ages 5–9 years. At age 10 years, levels of poor performances appear to be entrenched and no improvement is shown in each advancing cross-sectional age cohort. While a similar trend is observed in the non-Aboriginal population, this trend is not as strong, and starts at a later age. The implication of this for Aboriginal children is a serious one. Too many Aboriginal students fall behind in the first years of schooling and never catch up. As will be seen in the following section, this observation is paralleled in the longitudinal data on the same children over time for the benchmark measures.

Government and non-Government organisations, such as Good Beginnings and the National Investment for the Early Years (NIFTeY) alike, have placed considerable effort into the development of ‘Early Years’ strategies.<sup>12</sup> This reflects a worldwide trend in the importance of investments that seek to improve health and wellbeing as a major mechanism for improving population capability.<sup>13,14</sup> Similarly, the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) has identified nine health issues relevant to the development of Aboriginal children aged 0–8 years and central to the improvement of their educational outcomes.<sup>15</sup> Based on the findings presented in this chapter, two broad courses of action are suggested.

Firstly, there is a critical need to implement early developmental programmes for Aboriginal infants and kindergarten children that substantially increase their readiness to start school. This entails increasing the exposure of Aboriginal infants, children and their carers to enriched educational day care and kindergarten. While the current provision of these services is not within the ambit of educational authorities, the evidence here suggests that improving access to, and participation in, day care and kindergarten programmes of high quality, frequency and intensity

*Continued . . .*



### ABORIGINAL STUDENTS AND THE EARLY YEARS *(continued)*

would yield fundamental improvements in their school entry skills. This will require changing the programme content and focus of existing day care and kindergarten programmes to explicitly support enriched educational care. Thus, the findings here are of direct relevance to both the Australian Government Department of Family and Community Services and the Western Australian Department of Education and Training. How can existing day care and kindergarten programmes for children be improved to provide developmental enrichment that will result in measurable benefit to Aboriginal children on entry into pre-school and primary school? The answer to this question requires government direction to these departments to recommend and implement administrative and programme strategies that will secure these improvements for children.

Secondly, with respect to what the education system has direct control over, enriched curricula that support Aboriginal child development from ages 4–12 years is essential to modify, halt and reverse the measured declines in their performance levels over this period. This will require improving population rates of Aboriginal school attendance (see *Chapter 4*), as well as a focus on evidence-based teaching and curricula that specifically targets the developmental skills and capacities, and basic literacy and numeracy skills of Aboriginal children. Issues around poor academic performance are further discussed in *Chapter 6*.

Without these strategies, the continued pattern of school failure, non-attendance, low performance, early school leaving, and poor lifelong educational opportunity and benefit will confront successive governments, Aboriginal communities and the families within these communities.

### WESTERN AUSTRALIAN LITERACY AND NUMERACY ASSESSMENT

Data on the academic achievement of Aboriginal students has also been obtained by linking survey responses to Western Australian Literacy and Numeracy Assessment (WALNA) data held by the Western Australian Department of Education and Training (see commentary box entitled *Western Australia Literacy and Numeracy Assessment (WALNA) data*).



## WESTERN AUSTRALIAN LITERACY AND NUMERACY ASSESSMENT (WALNA) DATA

The Western Australian Literacy and Numeracy Assessment (WALNA) is a curriculum-based assessment that tests students' knowledge and skills in numeracy, reading, spelling and writing. The WALNA test is administered annually to students in Years 3, 5 and 7.<sup>16</sup>

The WALNA assessment programme commenced in 1998 when students in Year 3 were assessed in reading, writing and spelling. A year later the programme was extended to Year 5 students and a numeracy test was added. In 2001, the WALNA was further extended to Year 7 students. In 2004, some 79,000 Western Australian students from all Government, Catholic and Independent schools were assessed in the WALNA programme. All WALNA tests are scored using the Western Australian Measuring Standards in Education scale. This scale allows comparisons over time within a particular WALNA test. Comparisons between tests (e.g. reading and numeracy) can not be made. Test results can also be related to national benchmark figures. These benchmarks are the agreed standards of performance that professional educators across the country deem to be the minimum level required for Years 3, 5 and 7 students. Achievement in relation to the national benchmark also provides important information about students at educational risk.<sup>17</sup>

The Western Australian Department of Education and Training has provided WALNA programme scores for Aboriginal students aged 4–17 years who participated in the WAACHS school survey. The WALNA data covers the period 1999–2004 and has been linked to WAACHS student records. Over two-thirds of eligible Aboriginal students were successfully matched to a WALNA record. Throughout this chapter, analysis involving WALNA test scores are reported in terms of achievement in relation to the national benchmarks.

A comparison of the WALNA tests scores linked to the survey students' records with WALNA data available for all Western Australian Aboriginal students show good agreement between the two data sources. In absolute terms, the benchmark WALNA results of the WAACHS sample are within an average of 3.9 percentage points of the published WALNA data for all Western Australian Aboriginal students.<sup>2</sup>

It was not possible to link every student record in the WAACHS with a WALNA record. This was due to the time frame covered by the WALNA data. WALNA data for testing in Years 3 and 5 were obtained for the period 1999–2004. Linked data covering Year 7 testing were available from 2001–2004. As noted in *Chapter 1 — The Survey – Objectives, Design and Process*, the WAACHS surveyed students over the period 2001–2002. Therefore a student surveyed as part of the WAACHS in 2001 in Year 9 or above, would not have an opportunity to undertake a WALNA test, and therefore no link could be made for this group of students.

After allowing for differences between the WAACHS and WALNA data, 69.1 per cent (CI: 66.0%–72.0%) of eligible Aboriginal students were successfully matched to a WALNA record. Of students eligible to undertake WALNA testing, 27.4 per cent (CI: 24.8%–30.1%) had completed at least one WALNA test in a given year. A little over three in ten students (31.5 per cent; CI: 28.8%–34.4%) were successfully matched to two WALNA test years, and 10.1 per cent (CI: 8.9%–11.6%) completed at least one WALNA test in all three years (Table 5.26).

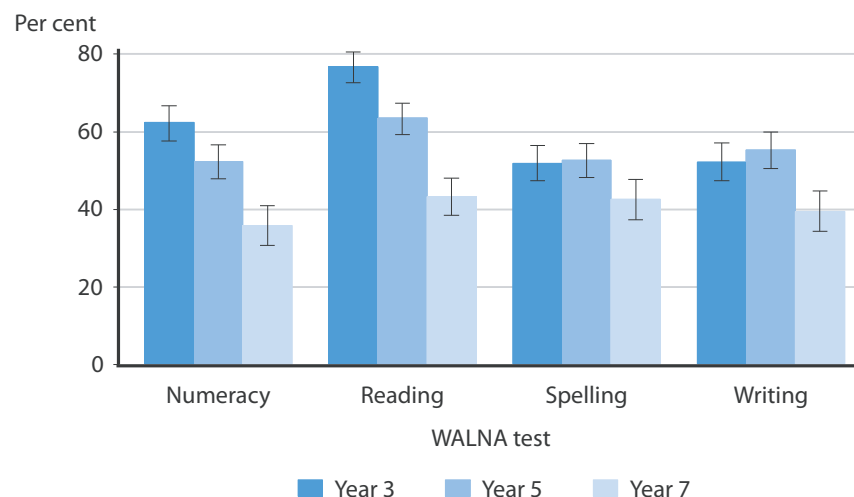




## ACHIEVEMENT OF THE NATIONAL BENCHMARKS

The Aboriginal student benchmark results in numeracy and reading declined with each successive round of testing. The proportion achieving the national benchmarks was highest in Year 3 testing, where results ranged from 52 per cent to 77 per cent. For Year 7 testing, the proportion achieving the benchmark for each test was significantly lower, ranging between 36 per cent and 43 per cent (Figure 5.17).

**FIGURE 5.17: ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION ACHIEVING THE NATIONAL BENCHMARK**



Source: Table 5.27

## ABORIGINAL EDUCATIONAL ATTAINMENT: INTERNATIONAL COMPARISONS

As a means of placing the WAACHS findings in a wider context, international comparisons of the educational performance of Australian Aboriginal students have been made with Indigenous students in New Zealand, Canada and the United States. These comparisons help to shed light on how Australian Aboriginal students are doing in relation to other Indigenous populations around the world.

### New Zealand

The National Certificate of Educational Achievement is New Zealand's main national qualification for secondary school students. National standards have been set in each area of learning. Overall, in 2002, 59 per cent of Māori students achieved the national standard; the corresponding proportion of all candidates attaining the national standard was around 10 percentage points higher at 70 per cent. Between 52 and 60 per cent of Māori students attained the national standard in the English language, mathematics, science and technology learning areas. The corresponding proportion of non-Māori students was 13 to 17 percentage points higher in these learning areas.<sup>18</sup>

*Continued . . .*



**ABORIGINAL EDUCATIONAL ATTAINMENT: INTERNATIONAL COMPARISONS** *(continued)*

## Canada

While data on the academic performance of Canadian Aboriginal students is limited, the Province of British Columbia collects and reports information on Aboriginal student performance. Student level data are available for Aboriginal students enrolled in public schools, however academic performance data are unavailable for Aboriginal students enrolled in schools on-reserve. In the 2001–2002 public school year, there were about 11,500 Aboriginal students on-reserve and approximately 36,500 Aboriginal off-reserve students, suggesting that academic performance data were available for slightly over 76 per cent of Aboriginal students in the province of British Columbia.

The academic progress of Canadian students is assessed via a standardised test (i.e. Foundation Skills Assessment) that is administered in Grades 4, 7 and 10 and covers reading, first-draft writing and numeracy. Foundation Skills Assessment data between 2000 and 2002 show that the proportions of Aboriginal students in British Columbia meeting or exceeding expectations in each testing area were between 10 and 30 percentage points lower than the corresponding proportion of non-Aboriginal students.<sup>19</sup>

## United States

Educational progress of students in the United States of America is assessed through the National Assessment of Educational Progress.<sup>20</sup> This United States Department of Education programme administers various subject area assessments to nationally representative samples of students. In 1994, 48 per cent of American Indian Year 4 students scored 'at or above basic' on the reading assessment, compared with 60 per cent of all American students. In Year 8 testing the corresponding proportions were 63 per cent and 70 per cent, respectively.<sup>21</sup>

## Comparison with Western Australia

While each country uses its own system of assessing educational performance, it is clear that Indigenous students have lower levels of educational attainment in New Zealand, Canada and the United States, as is the case in Australia. Nevertheless, the disparity between Indigenous and non-Indigenous students is substantially greater in Australia than in these other three countries. This is similar to the findings from the WAACHS with respect to country level disparities in health where it was noted that, approximately thirty years ago, Indigenous peoples in Canada, New Zealand and the United States suffered similar high infant mortality rates to those observed in Australia. By 1999 though, the infant mortality rate in First Nations Canadian people had reduced to about 1.4 times higher than the total Canadian population and, in the United States, the figures for American Indian and Alaskan Native populations had reduced to about 1.2 times higher than the total population. In contrast, the infant mortality rate in the Australian Aboriginal population between 1999–2001 was 16.0 per 1,000 live births or 2.7 times higher than the total Australian population.<sup>22</sup>

*Continued . . .*

**ABORIGINAL EDUCATIONAL ATTAINMENT: INTERNATIONAL COMPARISONS** *(continued)*

Health disparities and educational disparities are interlinked.<sup>15</sup> In discussing the relative narrowing of health disparities in Indigenous and non-Indigenous populations in these countries, it was noted, for example, that North American governments have had a longer history of specialised health services for Indigenous people, spent more per capita, established better traditions of partnerships and involvement of Indigenous people, and made genuine advances in recognising the past history of colonisation and dispossession.<sup>10</sup> It is possible that these mechanisms and processes contribute both indirectly, through the better health and development of children, and directly, through their application to educational arrangements, to the better school performance of Indigenous children in these countries. While there would be value in a systematic study into the role these mechanisms have (and have had) in partially addressing disparity, Indigenous children in all of these countries still suffer significant disadvantage in outcomes, and Australian Aboriginal children specifically, continue to sustain some of the poorest outcomes of any.

**PERFORMANCE OF ABORIGINAL STUDENTS OVER TIME**

The longitudinal nature of the WALNA data allow the assessment of Aboriginal students' academic performance over time and also provides an insight into how the school performance of Aboriginal students is changing over time.

In order to assess the pattern of WALNA results over time, students that had completed a Year 3 test and subsequently completed a test in both Years 5 and 7 were identified. A separate analysis of this group of students who sat all three tests was then undertaken.

Firstly, it should be noted that relatively few students completed all three tests in Years 3, 5 and 7. The estimated number of Aboriginal students completing all 3 Year tests in numeracy, reading, writing or spelling ranged between 1,100 and 1,300 students, representing between 5.6 and 6.6 per cent of all Aboriginal students (Table 5.28).

Analysis of the cohort of students who completed all three WALNA Year tests reveals that levels of performance declined markedly with increasing age. The proportion of these students achieving the numeracy benchmark declined by over 20 percentage points over the four year period — from 64.9 per cent (CI: 58.2%–71.3%) to 41.9 per cent (CI: 34.7%–49.5%). Over the same period, the proportion that achieved the reading benchmark declined by almost 30 percentage points — from 84.6 per cent (CI: 76.4%–90.2%) to 54.7 per cent (CI: 46.6%–62.7%). The proportion of Aboriginal students achieving the national spelling benchmark also declined between Year 3 and Year 7 testing, although this difference was not statistically significant (Figure 5.18).



**FIGURE 5.18:** ABORIGINAL STUDENTS AGED 4–17 YEARS WHO COMPLETED ALL THREE WALNA YEAR TESTS — PROPORTION ACHIEVING THE NATIONAL BENCHMARK

Benchmark test	Year 3 benchmark test		Year 5 benchmark test		Year 7 benchmark test	
	%	95% CI	%	95% CI	%	95% CI
Numeracy	64.9	(58.2 - 71.3)	56.8	(50.1 - 63.6)	41.9	(34.7 - 49.5)
Reading	84.6	(76.4 - 90.2)	72.9	(65.6 - 79.8)	54.7	(46.6 - 62.7)
Spelling	58.1	(50.6 - 64.9)	56.8	(49.4 - 63.9)	43.7	(36.5 - 51.3)
Writing	43.7	(35.6 - 52.6)	73.9	(67.1 - 79.7)	44.4	(36.8 - 52.5)

It is also possible that Aboriginal students who completed all three WALNA year tests vary systematically in some way when compared with students who did not complete all three year tests. This has been examined by comparing academic performance as measured by teacher ratings for those who completed all three year tests with Aboriginal students that did not complete all three WALNA year tests. This comparison revealed no significant difference in academic performance between the two groups.

## MEASURES OF STUDENTS’ PERFORMANCE – RELIABILITY OF TEACHER RATED PERFORMANCE

The teacher’s rating of overall academic performance is used principally as an indicator of academic performance in this volume. To what extent do teacher ratings of school performance in the survey children correspond with measures of Matrices, Word Definitions and the WALNA data? Answers to this question provide some perspective on the usefulness of the teacher ratings as an indicator of academic performance.

### COMPARING TEACHER RATINGS WITH MATRICES AND WORD DEFINITIONS TESTS

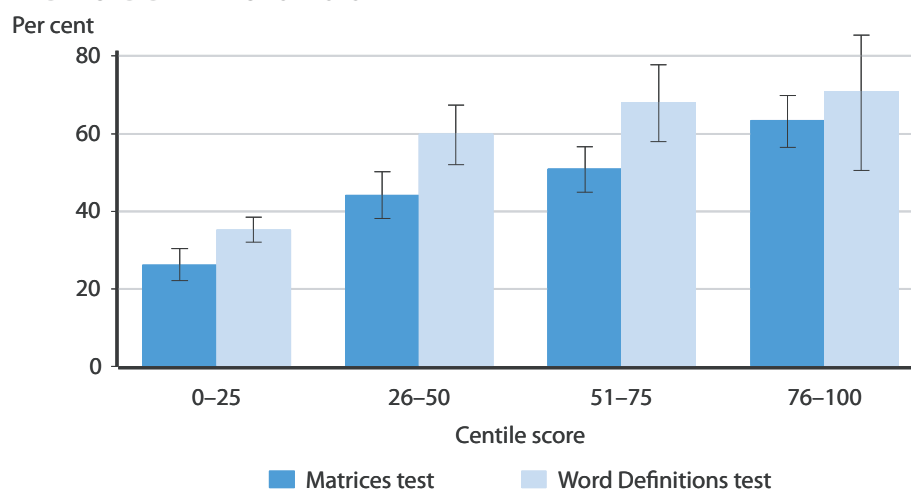
The data show that there is a significant correspondence between students’ performance on the Matrices/Word Definitions tests and teacher ratings of academic performance. In general, better performances on these tests were associated with higher teacher ratings of academic performance.

Teachers rated 63.4 per cent (CI: 56.5%–69.6%) of students at average or above average in their academic performance where their Matrices centile score was in the highest quartile. This was significantly higher than the 26.1 per cent (CI: 22.2%–30.4%) of students rated by their teachers at average or above average academic performance that scored in the lowest quartile in the Matrices test. Similarly, teachers rated 70.9 per cent (CI: 50.6%–85.3%) of students at average or above average academic performance where their Word Definitions performance was in the highest quartile. Only 35.2 per cent (CI: 32.0%–38.5%) of students rated by their teachers at average or above average academic performance scored in the lowest quartile of the Word Definitions test (Figure 5.19).

5



**FIGURE 5.19:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY CENTILE SCORES FOR MATRICES AND WORD DEFINITIONS TESTS



Source: Tables 5.29 & 5.30

A similar analysis was also undertaken to assess the validity of teacher rated numeracy (by analysing Matrices test centile scores) and teacher rated literacy (with reference to the Word Definitions centile score). The results of this validation are fully reported in *Appendix B — Further validation of teacher rated academic performance*. As was the case for teacher ratings of overall academic performance, good agreement between teacher ratings and the verbal and non-verbal tests was found. This finding strongly supports teacher ratings as being a reliable measure of academic performance.

## THE USE OF TEACHER RATINGS AS A MEASURE OF ACADEMIC PERFORMANCE

Several measures of academic performance of Aboriginal students were collected in the WAACHS. These indicators included teacher ratings of academic performance, completion of two tests (Matrices and Word Definitions) and national benchmark data in numeracy, reading, writing and spelling (WALNA testing in Years 3, 5 and 7).

Analysis of these measures shows a substantial proportion of Aboriginal students having low academic performance relative to all students. These findings were consistent across all of the measures of academic performance collected in the WAACHS, strongly suggesting that the lower academic performance of Aboriginal students is a genuine result not related to shortcomings in any of the individual assessment methods.

A key measure of academic performance available in the survey is teacher rated academic performance, as this is available for all students in the survey. The factors associated with low academic performance based on teacher rated academic performance are further analysed in Chapter 6. However, before this measure can be used it is important to assess how reliably this item measures academic performance. This step is critical because if teacher rated performance is not

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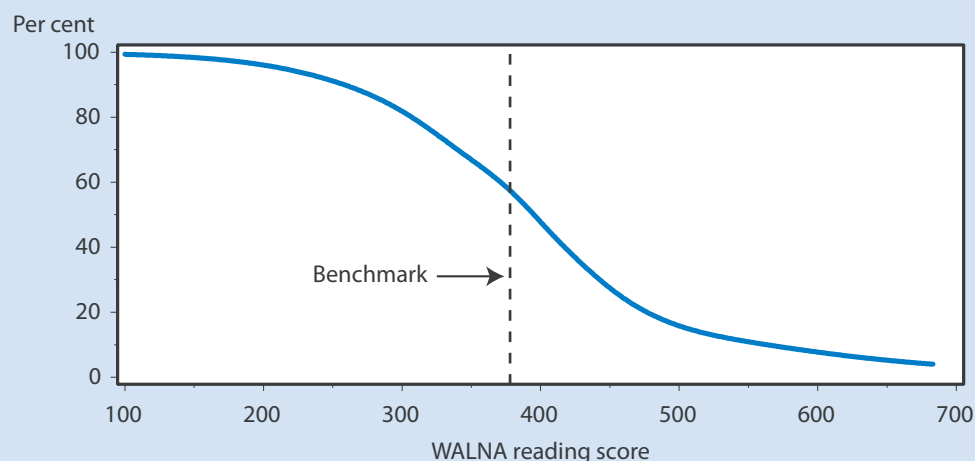


**THE USE OF TEACHER RATINGS AS A MEASURE OF ACADEMIC PERFORMANCE** *(continued)*

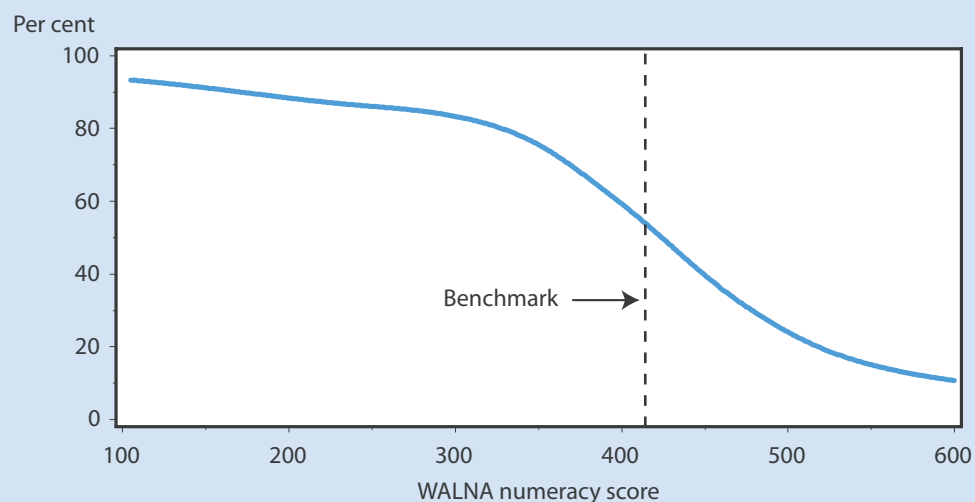
accurately measuring academic performance then any conclusions drawn from subsequent analysis of teacher rated performance may be misleading.

Teacher ratings of low academic performance have also been analysed with reference to WALNA test scores on a continuous scale. The figures below show the proportion of Aboriginal students rated at low academic performance, by WALNA scores in the Year 7 reading and numeracy tests.

**ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT LOW ACADEMIC PERFORMANCE, BY YEAR 7 WALNA READING TEST SCORE**



**ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT LOW ACADEMIC PERFORMANCE, BY YEAR 7 WALNA NUMERACY TEST SCORE**



In this chapter, teacher ratings of overall academic performance have been validated with reference to other independent measures of academic performance including students' results in the Matrices, Word Definitions and WALNA testing.

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## THE USE OF TEACHER RATINGS AS A MEASURE OF ACADEMIC PERFORMANCE *(continued)*

When interpreting these results, several factors are worth noting:

- ◆ While teacher ratings and the independent testing measure broadly similar concepts (i.e. students' academic performance), they do not measure the exact same concept of academic performance.
- ◆ Teachers have the benefit of observing students' school work over the course of a year. Test results reflect a student's performance on the particular day the test was undertaken, while teachers' assessments draw upon varying lengths of experience in several teaching and learning contexts.

Bearing in mind these differences, and noting that observed associations are not expected to be perfect, findings from this chapter highlight the strong associations between teacher rated academic performance and other independent measures of academic performance including Matrices and Word Definitions test results and national benchmark results in Numeracy, Reading, Writing and Spelling. These results suggest that the teacher rated academic performance information collected in the WAACHS is a reliable measure of academic performance. Confirmation of the reliability of teacher rated academic performance is important, not just of itself, but because it allows the exploration of the relationship between academic performance and other life outcomes. Factors influencing low academic performance of Aboriginal students are examined in *Chapter 6 — Factors influencing academic performance*.

## TEACHER RATINGS AND THE WALNA DATA

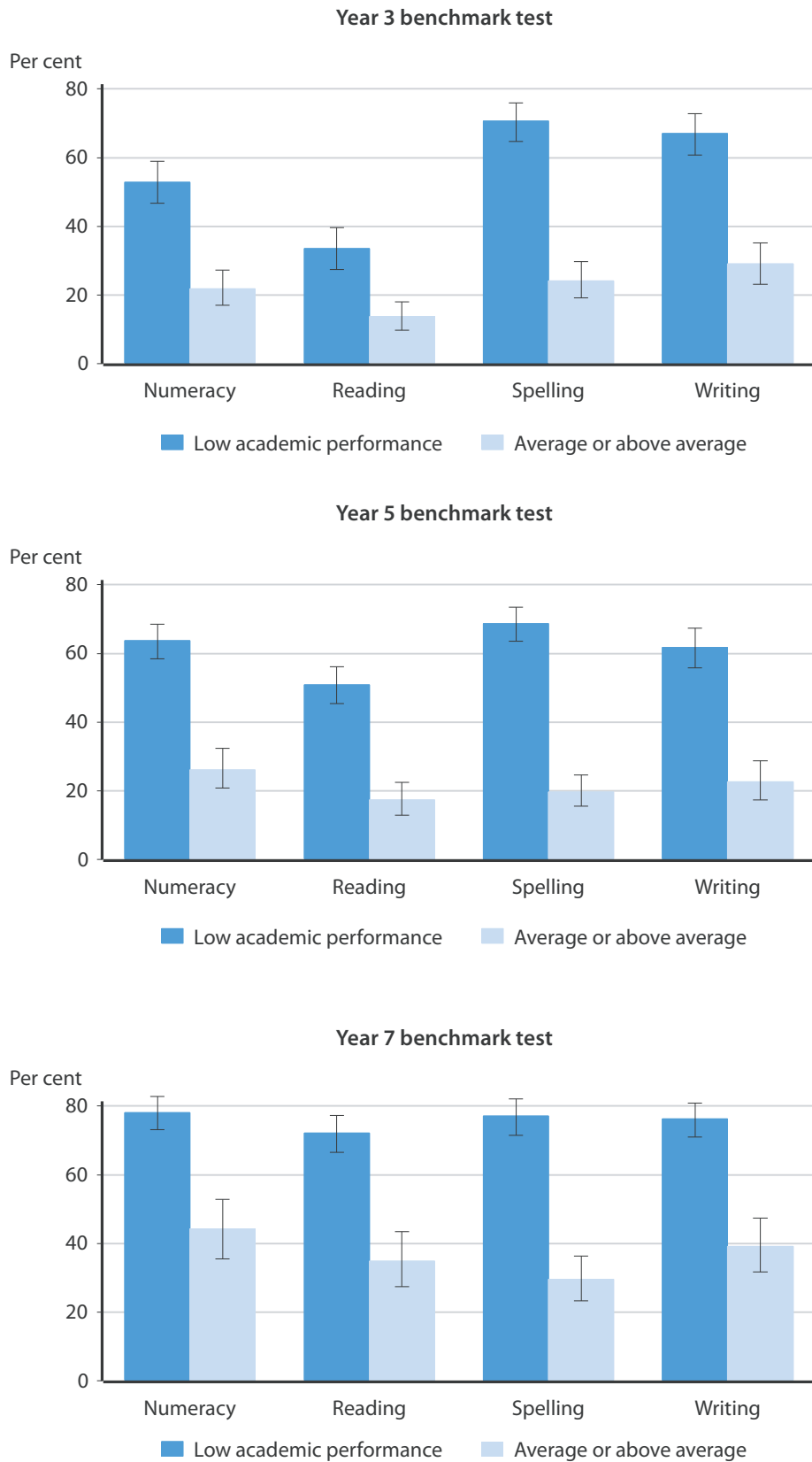
The WALNA data were also analysed to assess how well test scores correlated with teacher rated performance. Figure 5.20 shows the proportion of students that did not achieve the national benchmark for each of the four WALNA tests (numeracy, spelling, reading and writing) for Years 3, 5 and 7, by teacher rated overall academic performance.

Of those Aboriginal students who were successfully linked to a WALNA record, the proportion not meeting WALNA numeracy, reading, spelling and writing benchmarks across the three years was between 20–50 percentage points higher for students that were rated at low academic performance compared with students rated at average or above average academic performance (Table 5.31). These results further support teacher ratings as being a reliable measure of academic performance.

Further validation of teacher rated numeracy and literacy with reference to WALNA benchmarks are reported in *Appendix B — Further validation of teacher rated academic performance*.



**FIGURE 5.20:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION NOT ACHIEVING THE NATIONAL BENCHMARK, BY TEACHER RATED ACADEMIC PERFORMANCE



Source: Table 5.31

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## THE ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS: KEY MESSAGES

This chapter describes the methods used in the survey to measure various aspects of the school performance of Aboriginal children and young people. The central measure used is the teacher's rating of overall academic performance. Additional teacher ratings of performance in literacy and numeracy were also gathered. Information on the academic performance of Aboriginal students from the teacher's perspective has also been supplemented with measures of Matrices and English Word Definitions and administrative data covering national benchmark testing.

### Disparity in educational outcomes

The WAACHS data highlight the considerable disparity between the academic performance of Western Australian Aboriginal students and all Western Australian students. Almost 58 per cent of Aboriginal students aged 4–17 years were rated by their teachers as having low overall academic performance (either far below age or somewhat below age in comparison with all students of the same age). This was significantly higher than the comparable proportion of all Western Australian students aged 4–16 years — less than 20 per cent of these students were rated at low academic performance. This finding of poor academic performance is consistent with other independent measures of academic performance available from the survey.

At present there are indications of slight improvements in the numbers of Aboriginal children and young people that are being retained into Years 11 and 12 (see *Chapter 2*) and of greater numbers of Aboriginal students entering post-school training and education.<sup>23</sup> While these are encouraging signs of some progress in educational participation, the findings provided in this chapter and *Chapter 4 — Attendance at school* highlight the vast disparities in educational outcomes faced by Aboriginal students and stress the challenges ahead in the establishment of parity and equity in achieving outcomes comparable to those for all Australian children.

These findings of large disparities in educational outcomes between Aboriginal students and all students are somewhat analogous to outcomes in the health domain where it is widely acknowledged that Aboriginal children suffer poorer health outcomes relative to non-Aboriginal children.<sup>10,24</sup> For example, 11 per cent of Aboriginal children were born with low birth weight compared with 7 per cent of all children.<sup>10</sup> In terms of risk of clinically significant emotional or behavioural difficulties, 24 per cent of Aboriginal children were at high risk, compared with 15 per cent of non-Aboriginal children.<sup>24</sup> In comparison, 58 per cent of Aboriginal students were rated at low academic performance — three times the proportion of all students at low academic performance (19 per cent). The much larger difference in educational outcomes for Aboriginal children relative to all children suggests that a greater level of investment and focus of attention is required in the education sector to improve outcomes for Aboriginal students.

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**THE ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS: KEY MESSAGES** *(continued)*

## Lessons from overseas

Not only are Western Australian Aboriginal students faring poorly in comparison to all Western Australian students, international evidence points to the relative educational disadvantage of Indigenous students in New Zealand, Canada and the United States being much smaller than the observed inequality between Australian Aboriginal students and non-Aboriginal students. Perhaps this is best evidenced by the observation that most of the North American educational policy in the area of poor academic performance is targeted at Black and Hispanic students rather than Native American students. This suggests that a possibly useful step in the formulation of new educational policy would be a systematic examination of the overseas experience to identify what policy instruments have and have not worked in bridging the gap in educational outcomes. What, if any, of these lessons from overseas could be applied in the context of improving the educational outcomes of Australian Aboriginal students?

As noted in Volume One,<sup>10</sup> Australian Aboriginal people have worse health outcomes in terms of mortality, infant mortality and chronic disease than Indigenous people in Canada, New Zealand and the United States. Each of these countries have, in different ways, achieved greater gains for Indigenous peoples over a longer period of time than Australia. It is possible that the greater disparity in educational outcomes for Aboriginal people in Australia compared with these other countries reflects the cross-sectoral improvements in Indigenous disadvantage that have been achieved in Canada, New Zealand and the United States. This might suggest that improving educational outcomes for Aboriginal people is intertwined with the overall lessening of Aboriginal disadvantage across all key sectors including health, housing, employment and economic opportunity.

## Language and cultural factors

Issues of different learning styles and culture, which students from a language background other than English also possibly face, have not resulted in large educational disparities between this group and all students. The average difference in the proportion achieving the national benchmarks between students from a non-English speaking background and all students ranged between one and nine percentage points.<sup>11</sup> These differences were of a much smaller magnitude than the corresponding differences between Aboriginal students and all students which reached up to 44 percentage points in Year 7 testing.

## The importance of the early years

Another important message arising from these findings is the importance of the first years of schooling for Aboriginal children. This finding is most clearly noticeable with reference to Matrices and Word Definitions test scores and national benchmark testing. The highest scores in the Matrices and Word Definitions tests for Aboriginal students were observed for children aged 4 years, thereafter students'

*Continued . . .*

## THE ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS: KEY MESSAGES *(continued)*

performance markedly declines through the ages of 5–9 years. At ages 10 years and older, students' performances in these tests show no improvement. This pattern of results is mirrored in the national benchmark testing, where differences in the proportion of Aboriginal students meeting the national benchmark in numeracy and reading testing fell by around 30 percentage points between Years 3 and 7. Even at the earliest years, Aboriginal students have lower academic performance than non-Aboriginal children.

These results suggest that Aboriginal children start school less school-ready than other children. The majority of Aboriginal students quickly fall behind in the first years of schooling, establishing patterns of achievement that are extremely difficult to correct in later years. These results highlight the importance of early years strategies to improve the school readiness of Aboriginal children and the importance of the primary school years, particularly the first four years of formal schooling. Interventions aimed at the secondary school level are unlikely to be successful given the degree to which many Aboriginal students have fallen behind by this age.

Without strategies that support Aboriginal students from ages 4 to 12 years, it is likely that the pattern of low academic performance, poor attendance and early school leaving will continue to be issues of concern. For information on the implication of these issues for older children, see *Chapter 8 — School, health and young people*.

Findings from this chapter also highlight the strong associations between teacher rated academic performance and other independent measures of academic performance including the Matrices and Word Definitions tests and national benchmark testing. In the next chapter (*Chapter 6 — Factors influencing academic performance*), the associations between teacher rated performance and school attendance and other characteristics of the students, their carers, families and schools are explored in detail.

## ENDNOTES

1. Zubrick SR, Silburn SR, Gurrin L, Teoh H, Shepherd C, Carlton J, Lawrence D. *Western Australian Child Health Survey: Education, health, and competence*. Perth: Australian Bureau of Statistics and the TVW Telethon Institute for Child Health Research; 1997.
2. Department of Education and Training. Personal correspondence. Perth: Unpublished data: 2005.
3. Ministerial Council on Education, Employment, Training and Youth Affairs. *National Report on Schooling in Australia. Preliminary paper. National Benchmark Results. Reading, Writing and Numeracy Years 3, 5 and 7*. [Online] [cited 2005 Sep 7]; Available from: URL: <http://cms.curriculum.edu.au/anr2002/>
4. Masters GN, Forster M. *Literacy Standards in Australia*. Canberra: Australian Council for Educational Research; 1997.
5. Management Committee for the National Schools Literacy Survey. *Mapping Literacy Achievement. Results of the 1996 National School English Literacy Survey*. Canberra: Department of Employment, Education, Training and Youth Affairs; 1997.
6. Department of Education and Training. *Apparent Progression Rates 1990–2005*. Personal correspondence. Perth: Unpublished data; 2005.



7. McKeich R. *Problems of part-Aboriginal Education with Special Reference to the South-west Region of Western Australia*. PhD Thesis. Perth: The University of Western Australia; 1971.
8. Beresford Q, Partington G. *Reform and Resistance in Aboriginal Education: The Australian Experience*. Perth: University of Western Australia Press; 2003.
9. Elliot CD, Murray DJ, Pearson LS. *British Abilities Scales: Manual 4 Tables of Abilities and Norms*. Windsor: NFER-Nelson; 1983.
10. Zubrick SR, Lawrence DM, Silburn SR, Blair E, Milroy H, Wilkes E, Eades S, D'Antoine H, Read A, Ishiguchi P, Doyle S. *The Western Australian Aboriginal Child Health Survey: The health of Aboriginal children and young people*. Perth: Telethon Institute for Child Health Research; 2004.
11. Department of Education and Training. *Department of Education and Training Annual Report 2003–2004*. Perth: Department of Education and Training; 2004.
12. Department of Premier and Cabinet. *Western Australia's Children First Strategy*. Perth: Government of Western Australia; 2004.
13. McCain MN, Mustard JF. *The early years study: Reversing the real brain drain*. Toronto, Ontario: Children's Secretariat; 1999.
14. Young ME, editor. *From early child development to human development: Investing in our children's future*. Washington, DC: The World Bank; 2002.
15. Ministerial Council on Education, Employment, Training and Youth Affairs Taskforce on Indigenous Education. *Solid foundations: Health and education partnership for Indigenous children aged 0 to 8 years*. Carlton: Ministerial Council on Education, Employment, Training and Youth Affairs; 2001.
16. Department of Education and Training. *Western Australian Literacy and Numeracy Assessment*. [Online] [cited 2004 Nov 25]; Available from: URL: <http://www.eddept.wa.edu.au/walna/index.html>
17. Department of Education and Training. *Performance of Students in Government and Non-Government Schools and Government School Districts Years 3, 5 and 7*. [Online] [cited 2005 Sep 9]; Available from: URL: <http://www.eddept.wa.edu.au/walna/pdfs/PerformanceReport.pdf>
18. Ministry of Education. *Annual Report on Māori Education 2002/2003*, Wellington: Government of New Zealand; 2004.
19. Morin H. Student performance data and research tools to ensure Aboriginal student success. In: White JP, Maxim P, Beavon D, editors *Aboriginal Policy Research: Setting the Agenda for Change Volume 1*. Ontario: Thompson Educational Publishing; Ontario; 2004.
20. Cohen M. *Fiscal Year 2001 Budget Testimony: Department of Education Programs That Serve Indians*. Washington, DC: U.S. Senate Committee on Indian Affairs; 2000. [Online] [Cited 2005 Nov 11]. Available from: URL: <http://www.ed.gov/offices/OUS/Budget01/01Testimony/01indians.html>
21. Perie M, Moran R, Lutkus AD, Tine L. *The Nation's report card. NAEP 2004 Trends in Academic Progress: Three Decades of Student Performance in Reading and Mathematics*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (NCES 2005–464); 2005.
22. Australian Bureau of Statistics and Australian Institute of Health and Welfare. *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples*. Canberra: Australian Bureau of Statistics (Catalogue Number 4704.0); 2003.
23. Steering Committee for the Review of Government Service Provision. *Overcoming Indigenous Disadvantage: Key Indicators 2005*. Canberra: Productivity Commission; 2005.
24. Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, De Maio JA, Cox A, Li J. *The Western Australian Aboriginal Child Health Survey: The social and emotional wellbeing of Aboriginal children and young people*. Perth: Curtin University of Technology and Telethon Institute for Child Health Research; 2005.



## Chapter 6

### FACTORS INFLUENCING ACADEMIC PERFORMANCE

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## Chapter 6

### FACTORS INFLUENCING ACADEMIC PERFORMANCE

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*The alleviation of educational disadvantage for Aboriginal children and young people, and the achievement of equity in their educational outcomes is a primary responsibility of a civil society and its government. While the role of education may be seen to support assimilation, it remains the case that success in education for many Aboriginal children can enable onward success and lead to productivity, sustainability and empowerment. Data on the associations and determinants of educational outcomes for Indigenous students internationally, and Australian Aboriginal students specifically, are scant and educators and education systems have largely relied on administrative data and select samples from which to predict and plan. The Western Australian Aboriginal Child Health Survey provides a unique opportunity to assess key associations in several contexts that are relevant to educational performance. This chapter explores the relationship between child, family and school factors as they pertain to performance at school.*

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#### SUMMARY

In this chapter, factors associated with the academic performance of Aboriginal students are analysed from four perspectives:

- ◆ Student level factors — including the student's own physical health and social and emotional wellbeing
- ◆ Carer level factors — such as socioeconomic status, and the physical and mental health of carers
- ◆ Family and household environment factors
- ◆ School environment factors.

Teacher ratings of overall academic performance were used as the primary measure of academic performance.

#### Students most at risk of low academic performance

Results from statistical modelling in this chapter identified three major factors associated with low academic performance of Aboriginal students.

- ◆ *School attendance.* Improvements in school attendance remain a key strategy for addressing low academic performance of Aboriginal students. Data modelling shows that students absent from school for 105 days or more were two times more likely to have low academic performance compared with students that were absent for 10 days or less.
- ◆ *Risk of clinically significant emotional or behavioural difficulties.* The academic performance of Aboriginal students is substantially lower in the presence of an emotional or behavioural difficulty. Students at high risk of clinically significant emotional or behavioural difficulties were over two and half times more likely to be rated at low academic performance relative to students rated at low risk of such difficulties.



## SUMMARY (continued)

- ◆ *Carer education.* Higher levels of carer education were a protective factor in terms of the academic performance of Aboriginal students. Students in the primary care of a person who had completed 13 or more years of schooling were over two times less likely to have low academic performance than students whose primary carer had between 1–9 years of education.

### Lack of association between student's physical health and academic performance

Associations between a range of physical health indicators and Aboriginal students' academic performance were also tested. Of the physical health factors tested, only two were found to be significantly associated with academic performance — students that had trouble saying certain sounds; and students that needed help with the basics of daily living such as eating, dressing and bathing.

The data analysed in this chapter strongly suggest that a sole focus on improving physical health in Aboriginal students (while important in its own right) will not lead to improved academic outcomes for Aboriginal students. There are other factors independent of physical health impacting on the academic performance of Aboriginal students that need to be addressed before improvements in academic performance are realised.

### Other significant factors associated with low academic performance

A number of other student, carer, family and household and school level factors were found to be significant in terms of the likelihood of Aboriginal students having low academic performance.

#### Student level factors included:

- ◆ *Speech difficulties.* Students that had trouble saying certain sounds were one and a half times more likely to have low academic performance than students who did not have trouble saying certain sounds.
- ◆ *Main language spoken in the classroom.* Students that spoke Aboriginal English in the classroom were over two times more likely to be rated at low academic performance than students who spoke English in the classroom.
- ◆ *Where the student usually studies.* Students that usually did their homework or study in homework classes were over two times more likely to have low academic performance relative to students that usually studied at home.

#### Carer level factors included:

- ◆ *Primary carer labour force status.* Students whose primary carer was not in the labour force were 40 per cent more likely to have low academic performance compared with students whose primary carer was employed.

#### Family and household factors included:

- ◆ *Gambling a cause of problems in the household.* Students living in households where gambling was a cause of problems were over two times more likely to have low academic performance relative to students living in households where gambling did not cause problems.





**SUMMARY** *(continued)***School environment** factors included:

- ◆ *Student to teacher ratio.* Students attending schools where the student to teacher ratio was 20 or more were 1.8 times less likely to have low academic performance than students attending schools where this ratio was 10 or less.
- ◆ *Unexplained absence from school.* Students with more than 10 days of unexplained absence from school were almost two times more likely to have low academic performance than students who did not have any unexplained absence.
- ◆ *School suspension.* Students suspended from school on two or more occasions were over three times more likely to have low academic performance than students who had never been suspended.



## INTRODUCTION

Teacher rated overall academic performance (see *Chapter 5*) is used in this chapter as the primary measure of academic performance of Aboriginal students.

There are various factors that may potentially influence academic performance. They can be grouped into four broad categories:

- ◆ individual level factors — including the student's own physical health status and social and emotional wellbeing
- ◆ carer level factors — including socioeconomic status and the physical and mental health of carers
- ◆ family and household environment factors
- ◆ school environment factors.

Analysis of factors associated with students' academic performance is presented from each of these perspectives. The direct relationship between student, carer, family and household and school environment factors and the extent to which each is associated with academic performance in Aboriginal students aged 4-17 years is analysed in the sections that follow.

While such analysis of direct relationships helps to shed light on the relative strengths of factor associations with academic performance, it is possible that other related factors could simultaneously influence the strength of these relationships. For example, Level of Relative Isolation (LORI) is associated with students speaking Aboriginal English in the classroom (which is highest in the most isolated areas). Therefore, to confirm a direct relationship between main language spoken in the classroom and academic performance, rather than an apparent relationship because of the underlying relationship between a third factor LORI and language spoken in the classroom, statistical modelling techniques are required.

In this chapter, Logistic regression models (see commentary box entitled *Exploring relationships with modelling*) are used to assess the simultaneous impact of multiple factors and further determine the associations between various factors and academic performance of Aboriginal students. Each model adjusts for the independent effects of the other variables in the model. For example, modelling has been used to test whether the association between students' emotional or behavioural difficulties and the likelihood of low academic performance is an artefact of a student's age, sex or different rates of emotional or behavioural difficulties across different levels of relative isolation.

Five models are presented in this chapter. Separate models have been estimated to test each of the factors within the four broad analysis categories — student, carer, family and household and school environment. A final model is then presented which assesses the joint impact of factors across all four categories and highlights those student, carer, family and household and school environment factors that most impact on academic outcomes for Aboriginal students.

## STUDENT FACTORS AND ACADEMIC PERFORMANCE

There is extensive research that links good physical health with academic performance.<sup>1,2</sup> This section details the associations between the health of Aboriginal students and academic performance.



## MATERNAL AND NEONATAL HEALTH

The importance of the early years of development as an essential base for later learning, behaviour and health is well documented.<sup>3</sup> Research has also highlighted that the great majority of physical brain development occurs by the age of three years and that low birth weight, recurring illness, and chronic malnutrition leads to poor health, which in turn often leads to poor school achievement and early school leaving.<sup>1</sup>

Western Australian Aboriginal Child Health Survey (WAACHS) data was linked to birth records and midwives reports (see *record linkage* in *Glossary*) and these data have been analysed in this section to detail the associations between maternal health and other characteristics of Aboriginal children at birth with later academic performance.

### Use of tobacco and alcohol during pregnancy

A higher proportion of students whose primary carer used both alcohol and tobacco during pregnancy were rated at low academic performance (64.6 per cent; CI: 58.2%–70.6%) compared with students whose carer used tobacco only during pregnancy (53.0 per cent; CI: 47.7%–58.1%) (Table 6.1).

### Percentage of Optimal Birth Weight (POBW)

An infant's weight at birth depends both on the length of gestation and the rate at which it has grown in utero. Not all foetuses grow at the same rate. Boys grow faster than girls, children of tall mothers grow faster than those of short mothers, and a woman's first child grows more slowly than her subsequent children. However growth rate is also affected by a number of pathological conditions, most of which decrease growth rate (the exception being maternal diabetes, which increases growth rate). The appropriateness of an infant's growth can be estimated as the ratio of the infant's observed birth weight to the infant's optimal birth weight. Infants that have grown normally have a Percentage of Optimal Birth Weight (POBW) close to 100 per cent and, in these analyses, percentages below 85 per cent are classified as having sub-optimal intrauterine growth.<sup>4</sup>

The data presented in Table 6.2 show that there is no significant association between sub-optimal intrauterine growth and their subsequent academic performance as a student. When further analysed by LORI, the same result was found to hold.

### Breastfeeding

There was no significant difference in the proportion of Aboriginal students' rated at low academic performance by whether they had been breastfed as a child (Table 6.3).

## STUDENT'S PHYSICAL HEALTH

This section reports associations between various dimensions of Aboriginal student's physical health and academic performance.

The associations between a number of physical health indicators and Aboriginal students' academic performance were tested. Factors that were *not* found to be significantly associated with academic performance included:



- ◆ students ever having had runny ears
- ◆ asthma (this was also further analysed by LORI and no significant association with academic performance was found)
- ◆ normal vision in both eyes
- ◆ normal hearing in both ears
- ◆ number of dietary quality indicators met
- ◆ trouble getting enough sleep
- ◆ whether the student needed help to get around
- ◆ currently taking antibiotics
- ◆ whether the student experienced any physical pain or discomfort
- ◆ recurring chest infections
- ◆ recurring ear infections
- ◆ students that had hayfever
- ◆ whether the student had a disability or other serious health problem that put a burden on the carer or the family as a whole
- ◆ whether the student had any other serious health problems.

In addition to separately testing the association between each of these measures of physical health and academic performance, a global measure of physical health was also developed (see commentary box entitled *Aboriginal students' overall physical health*). No significant association was found between this overall measure of physical health and academic performance of Aboriginal students (Table 6.4).

#### ABORIGINAL STUDENTS' OVERALL PHYSICAL HEALTH

Extensive data relating to the physical health of Aboriginal students was collected in the WAACHS.<sup>5</sup> An indicator of the overall physical health of students was constructed by calculating the number of health problems for each surveyed student. Health problems considered for use in this measure included whether the child experienced any of 19 health problems ranging from allergies, asthma or diabetes to cancer or leukaemia. Hospitalisations for burns or accidental poisoning, or students that had been knocked out or unconscious because of an injury were also included in this measure. Along with these indicators of health problems, students that had hearing or vision problems, speech difficulties, asthma, required help to get around or needed special help with the activities of daily living, or who experienced physical pain or discomfort were also included in calculating the number of health problems experienced by Aboriginal students.

In subsequent analysis, this measure of overall physical health was grouped into three categories:

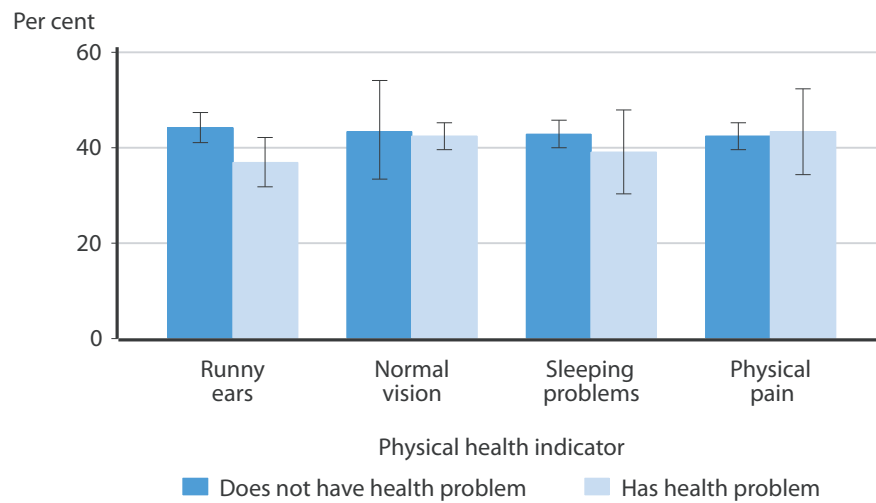
- ◆ students with none of these health problems
- ◆ students with 1–2 of these problems
- ◆ students with 3 or more of these problems.



Lack of association between a student’s physical health and academic performance

Of all the physical health factors tested, only two physical health factors were found to be significantly associated with academic performance (speech difficulties and functional limitations, see below). These findings of a lack of association between students’ physical health and academic performance are surprising as there is extensive research describing the links between good physical health and school performance (see commentary box entitled *Physical health and academic performance of Aboriginal students* for a discussion of this research and implications of the WAACHS findings). The lack of association between some selected physical health indicators and academic performance is shown in Figure 6.1.

**FIGURE 6.1:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY SELECTED PHYSICAL HEALTH INDICATORS



Source: Table 6.5

Speech

Carers were asked three questions relating to speech difficulties of children in their care — whether other people needed help to understand what their child was saying; whether their child had difficulty saying certain sounds; and whether their child stuttered or stammered.

Speech difficulties were a factor significantly associated with academic performance. Other people required help in understanding the speech of around one in ten Aboriginal students (9.5 per cent; CI: 8.0%–11.3%). A similar proportion of Aboriginal students had difficulty saying certain sounds (11.7 per cent; CI: 10.1%–13.5%).

Of those students who had trouble saying certain sounds, 30.8 per cent (CI: 23.2%–38.8%) were rated by their teachers as having average or above average academic performance, compared with 44.1 per cent (CI: 41.2%–47.0%) of students that did not have trouble saying certain sounds (Table 6.6).

A lower proportion of students whose speech is impaired to the point that other people need help to understand what they are saying were also rated at average or above average academic performance (29.6 per cent; CI: 21.2%–39.6%). The corresponding proportion for students whose speech could be understood was 43.9 per cent (CI: 41.0%–46.8%) (Table 6.7).



### Activities of daily living

Fewer than one in fifty students (1.9 per cent; CI: 1.4%–2.5%) experienced functional limitations. This factor was significantly associated with academic performance in Aboriginal students.

A lower proportion of students needing special help to carry out basic personal functions (eating, bathing, dressing or using the toilet) due to illness or disability were rated at average or above average academic performance. Around one in six of these students (16.1 per cent; CI: 7.5%–30.2%) had average or above average academic performance. This compares with 43.0 per cent (CI: 40.2%–45.8%) for students who had not experienced such functional limitations (Table 6.8).

## PHYSICAL HEALTH AND ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS

In 2001, the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) released a discussion paper<sup>1</sup> identifying nine health issues that affect Aboriginal children from birth to eight years of age and that present significant barriers to the educational participation and achievement of Aboriginal students. Health issues of concern included:

- ◆ Lower life expectancy at birth
- ◆ Low birth weight and failure to thrive
- ◆ Poor quality diet
- ◆ High disease rates, especially chronic ear and respiratory infections
- ◆ Social and emotional wellbeing
- ◆ Substance misuse
- ◆ Adolescent pregnancy
- ◆ Childhood trauma
- ◆ Childhood injuries.

In 2004, the Australian Council for Educational Research (ACER)<sup>5</sup> also identified seven key principles that were of particular relevance to Aboriginal students. The importance of health and nutrition as a key determinant of children's readiness and capacity at school was the first of the key principles discussed in the ACER report.

As the WAACHS collected information on some of these health issues, it has been possible to explore how strongly these health factors are associated with academic performance of Aboriginal students. Analysis of the survey data identified only two physical health factors that were significantly associated with academic performance of Aboriginal students (speech difficulties and functional limitations).

The findings are also important for what is not significantly associated with the academic performance of Aboriginal students. Of the key health issues identified by MCEETYA and for which data was collected in the WAACHS, no association

*Continued . . .*



**PHYSICAL HEALTH AND ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS** *(continued)*

was found between low birth weight, dietary quality, ear and respiratory infections and academic performance of Aboriginal students. The only factor in the list found to be significantly associated with academic performance of Aboriginal students was the risk of clinically significant emotional or behavioural difficulties (social and emotional wellbeing).

Clearly, the health and welfare of Aboriginal peoples is of critical importance in its own right, however, analysis of the WAACHS data did not identify any significant associations between overall physical health and school performance. Improving the health of Aboriginal people is rightly a national health priority area. These specific health targets are well documented.<sup>1</sup> However, the WAACHS data strongly suggest that a sole focus on improving physical health in Aboriginal children will not lead to improvements in academic outcomes for Aboriginal students, as there are other factors impacting on the academic performance of Aboriginal students.

Factors associated with low academic performance are identified and discussed in the commentary box entitled *Factors that influence the academic performance of Aboriginal students* located at the end of this chapter. Many of these factors have not been measured in previous studies of Aboriginal children and young people and are now, for the first time, able to be modelled in the WAACHS data. These findings suggest that there are other key determinants of Aboriginal students' academic performance independent of physical health. This raises the question as to whether it is appropriate to reassess the key principles identified by MCEETYA and ACER for improving the academic performance of Aboriginal students in the light of the findings reported in this volume?

**STUDENTS' SOCIAL AND EMOTIONAL WELLBEING**

The association between a student's emotional or behavioural difficulties and academic performance has been explored based on information on students collected from teachers using the Strengths and Difficulties Questionnaire (SDQ). The SDQ comprises 25 questions probing five areas of psychological adjustment in children. Based on teacher responses to the SDQ, a strengths and difficulties total score that can range from 0 to 40 was calculated. The risk of clinically significant emotional or behavioural difficulties can then be assessed with reference to the SDQ total score. Thus students with a score of 0–11 are identified as having low risk, those in the range 12–15 as having moderate risk, and those in the range 16–40 as having high risk of clinically significant emotional or behavioural difficulties. See *Strengths and Difficulties Questionnaire* in the *Glossary* for further details of the SDQ.

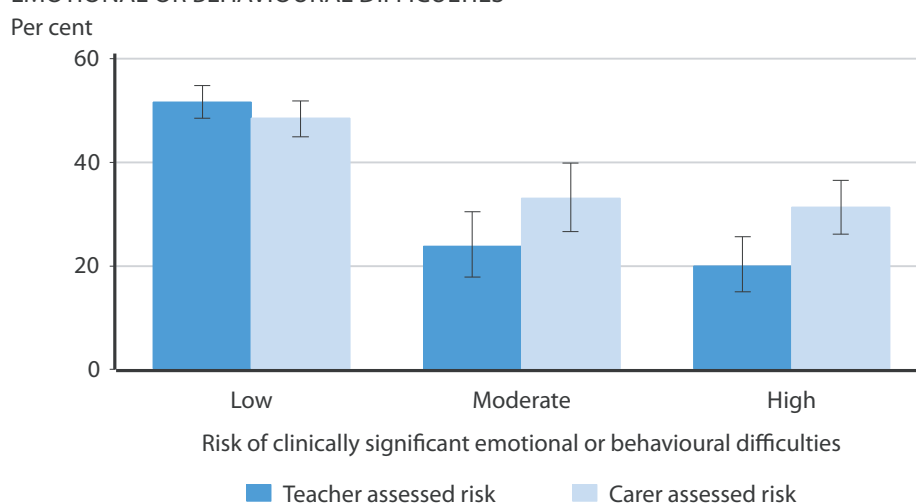
Around one in six students (16.8 per cent; CI: 14.8%–19.0%) were rated at high risk of clinically significant emotional or behavioural difficulties by their teachers. Of these students, 20.0 per cent (CI: 15.0%–25.6%) were rated at average or above average academic performance, whereas a significantly higher 51.7 per cent (CI: 48.6%–54.9%) of students at low risk were rated at average or above average academic performance (Table 6.9).



Students' emotional or behavioural difficulties were also examined with reference to carer reports of the SDQ. When compared to teacher ratings, the carers of students aged 4–17 years reported a higher proportion at high risk of clinically significant emotional or behavioural difficulties (24.2 per cent; CI: 21.6%–26.9%) (Table 6.10). This was a significantly higher proportion at high risk than that reported by the teachers of the same group of students (16.8 per cent; CI: 14.8%–19.0%).

Irrespective of whether the teacher or the carer rating of emotional or behavioural difficulties was used, the data showed a significant association between high risk of clinically significant emotional or behavioural difficulties and low academic performance (Figure 6.2).

**FIGURE 6.2:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY RISK OF CLINICALLY SIGNIFICANT EMOTIONAL OR BEHAVIOURAL DIFFICULTIES



Source: Tables 6.9 & 6.11

### Specific emotional or behavioural difficulties

In addition to the strengths and difficulties total score, the 25 items comprising the SDQ can be used to derive 5 underlying scale scores that measure specific symptoms, problems and behaviours. These specific scale scores include: emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour.

The most common specific emotional or behavioural difficulty experienced by Aboriginal students (as assessed by their teachers) was hyperactivity followed by conduct problems and problems with prosocial behaviour.

A little over one-fifth of Aboriginal students (22.3 per cent; CI: 19.9%–24.8%) were assessed as being at high risk of clinically significant hyperactivity. Almost one in five students (18.5 per cent; CI: 16.7%–20.4%) were assessed as being at high risk of conduct problems, while 17.1 per cent (CI: 15.2%–19.1%) were found to be at high risk of problems with prosocial behaviour. Less than one in ten students were assessed as being at high risk of peer problems (8.7 per cent; CI: 7.3%–10.3%) or emotional symptoms (6.7 per cent; CI: 5.4%–8.2%).



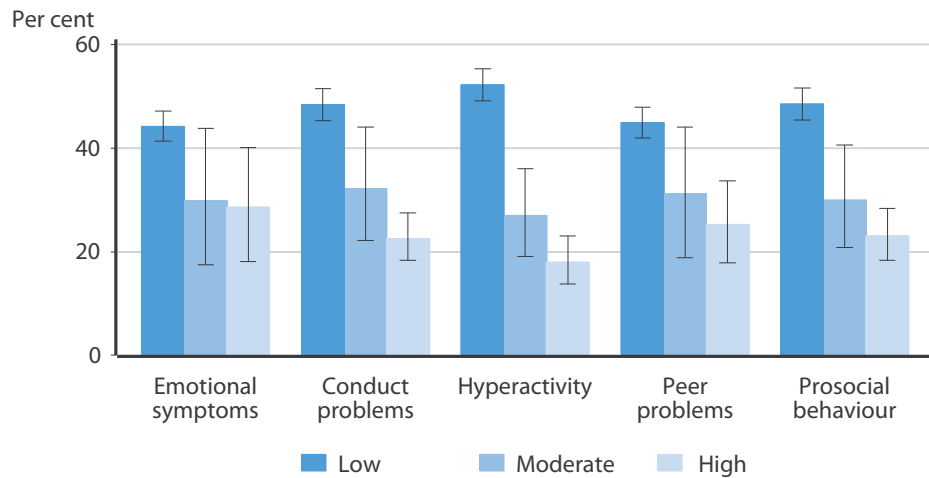


Significant differences were found in the proportions of students who were at average or above average academic performance when analysed against risk of clinically significant specific difficulties (Figure 6.3).

A higher proportion of students were rated at average or above average academic performance where teachers assessed students at:

- ◆ low risk of clinically significant emotional symptoms (44.2 per cent; CI: 41.4%–47.2%) compared with students rated at high risk (28.6 per cent; CI: 18.1%–40.1%)
- ◆ low risk of clinically significant conduct problems (48.4 per cent; CI: 45.3%–51.5%) compared with students rated at high risk (22.6 per cent; CI: 18.3%–27.5%)
- ◆ low risk of clinically significant hyperactivity (52.3 per cent; CI: 49.2%–55.4%) compared with students rated at high risk (18.0 per cent; CI: 13.8%–23.1%)
- ◆ low risk of clinically significant peer problems (44.9 per cent; CI: 42.0%–47.9%) compared with students rated at high risk (25.3 per cent; CI: 17.9%–33.7%)
- ◆ low risk of clinically significant problems with prosocial behaviour (48.6 per cent; CI: 45.5%–51.6%) compared with students rated at high risk (23.1 per cent; CI: 18.4%–28.4%).

**FIGURE 6.3:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY TEACHER ASSESSED RISK OF CLINICALLY SIGNIFICANT SPECIFIC DIFFICULTIES



Source: Table 6.12

A similar analysis of academic performance was conducted by examining risk of specific difficulties based on carer reporting. The same overall trends were found for each of the five specific difficulties, although significant differences in levels of academic performance were only found for students at high risk of conduct problems and hyperactivity.

### OTHER STUDENT FACTORS

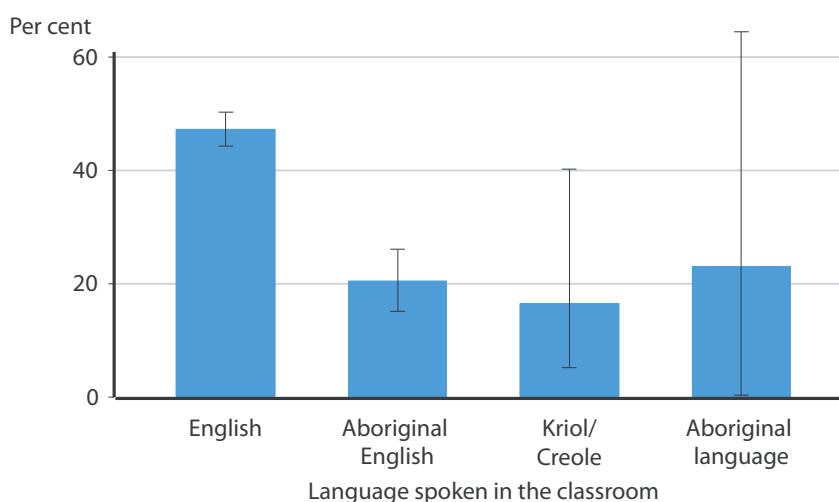
Along with physical health factors and the indicators of social and emotional wellbeing described previously, the academic performance of Aboriginal students was also analysed with reference to a range of other student factors.



### Language spoken at school

Academic performance was significantly associated with language spoken in the classroom (see *main language spoken* in *Glossary*). Almost half (47.3 per cent; CI: 44.3%–50.3%) of students who spoke English in the classroom were rated at average or above average academic performance. This was significantly higher than the corresponding proportion of students who spoke Aboriginal English in the classroom (20.5 per cent; CI: 15.2%–26.1%) or spoke Kriol/Creole in the classroom (16.5 per cent; CI: 5.2%–40.3%) (Figure 6.4).

**FIGURE 6.4:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY LANGUAGE SPOKEN IN THE CLASSROOM



Source: Table 6.13

A similar pattern of results was found when academic performance was analysed by language spoken in the playground (Table 6.14).

### Homework

A higher proportion of students who usually did homework at home (48.0 per cent; CI: 44.6%–51.5%) were rated at average or above average academic performance, compared with students who usually did homework in homework classes (27.2 per cent; CI: 21.7%–33.7%) (Table 6.15).

However, no significant association was found between academic performance and who usually helped the student with homework (Table 6.16).

### Attendance at pre-school and day care

Primary carers of children aged 4–11 years were asked whether their child ever went to pre-school or kindergarten. A higher proportion of 4–11 year-old students who had attended pre-school or kindergarten were rated at average or above average academic performance compared with students who had not attended pre-school or kindergarten, although this difference was not statistically significant (Table 6.17).

No significant association was found between overall academic performance and whether the student had ever attended day care (Table 6.17).



### Use of school support services in the last six months

Primary carers were asked if they or their partner had needed to make use of a range of school support services in relation to a problem their child was having at school.

A significantly higher proportion of students whose carers had seen their principal about problems the child was having at school were rated at low academic performance (69.5 per cent; CI: 62.6%–75.7%) compared with students whose carers had not seen the school principal (55.5 per cent; CI: 52.6%–58.5%) (Table 6.18).

Carer contact with a school psychologist, Aboriginal and Islander Education Officer (AIEO), class/form teacher and deputy principal were also analysed. No association was found between use of these school support services and academic performance.

### Use of medical services in the last six months

A higher proportion of students who had not seen a doctor in the last six months were rated at low academic performance (61.2 per cent; CI: 57.7%–64.6%) compared with students who had seen a doctor two or three times (49.9 per cent; CI: 43.5%–56.5%) (Table 6.19).

A higher proportion of students who had seen a nurse two or three times in the last six months were rated at low academic performance (74.6 per cent; CI: 63.6%–83.4%) than students who had not seen a nurse (55.8 per cent; CI: 52.8%–58.7%) (Table 6.19).

Student use of other medical services was also examined, however no significant association was found between academic performance and contact with Aboriginal Medical Services, dentists, specialists, Aboriginal health workers, hospital emergency departments, or a speech pathologist.

### Use of other programmes

Aboriginal student's academic performance was also analysed by use of the *Family Futures* and *Best Start* programmes. No significant association was found with either of these programmes.

## MODELLING OVERALL ACADEMIC PERFORMANCE – ASSOCIATIONS WITH STUDENT FACTORS

Multivariate logistic regression modelling (see *Glossary*) was undertaken to examine the association between the various student level factors described in the preceding analysis and Aboriginal students' academic performance. A final model of student factors was developed by testing each factor to determine the extent to which it was associated with academic performance independently of the effects of demographic factors such as sex, age and LORI and other student health and wellbeing factors.

In later sections, models are developed to analyse the impact on low academic performance of:

- ◆ carer level factors
- ◆ family and household factors
- ◆ school environment factors.

A final model is then developed that identifies the key factors across student, carer, family and household and the school environment that were associated with low academic performance.



## EXPLORING RELATIONSHIPS WITH MODELLING

Previous sections have explored the relationship between academic performance and a range of factors such as LORI or language spoken in the classroom, where each has been examined separately. It has been shown that the proportion of students rated at low academic performance increased with increasing isolation. The proportion of Aboriginal students who speak English in the classroom is also known to decrease with increasing isolation. It is possible therefore that the association between academic performance and language spoken in the classroom may in fact be a reflection of the relationship between language spoken and isolation, and between isolation and academic performance.

Statistical modelling can be used to assess the simultaneous impact of multiple factors and to determine the individual effects of each factor. Logistic regression models (see *Glossary*) have been used to explore a range of student, primary carer, family and school environment factors that may have had an effect on academic performance. The modelling techniques used take account of the survey weights and the hierarchical structure of the data with selection of children within families, communities and schools.

Furthermore, each model adjusts for the independent effects of the other variables in the model. Thus, for example, the association between academic performance and LORI can be separated from the association with language spoken.

The results of the models are expressed in terms of odds ratios (see *Glossary*). The odds ratios are calculated relative to an index category for each variable. For example, in the model describing academic performance and student variables, the LORI category 'none' (the Perth metropolitan area) has been used as the index category. Where students were living in an area where the LORI was 'extreme', the Odds Ratio was 3.05 (CI: 1.49–6.25). This can be interpreted as saying that students in areas of extreme relative isolation were 3.05 times more likely to have low academic performance than students living in the Perth metropolitan area. The statistical significance of an odds ratio can be judged by whether the confidence interval includes the reference value of 1.00 (see *Appendix E — Reliability of estimates*, for more information on confidence intervals).

Where an odds ratio is less than one, it indicates a reduced level of risk. For example, 'none' was chosen as the reference category for the number of times a student saw a doctor in the last six months. For students who had seen a doctor once or more in the last six months, the Odds Ratio was 0.76 (CI: 0.60–0.96), indicating that these students were almost three-quarters as likely to have low academic performance than students who had not visited a doctor in the last six months. Alternatively, it can be said that the students were 1.31 times less likely to have low academic performance. The value of 1.31 is calculated by dividing the Odds Ratio of 0.76 into 1.



Figure 6.5 presents the results of the first model that examines the associations between student level factors and low academic performance. Analysis within the multilevel logistic modelling framework indicates that there were nine student level factors (independent of demographic factors such as age, sex and LORI) that were predictors of low academic performance in Aboriginal students:

- ◆ substance use during pregnancy
- ◆ difficulty saying certain sounds
- ◆ functional limitations
- ◆ risk of clinically significant emotional or behavioural difficulties
- ◆ language spoken in the classroom
- ◆ where the child usually studies or does homework
- ◆ whether the primary carer or partner had needed to see the class/form teacher about a problem the student had at school in the last six months
- ◆ the number of times the student had seen a doctor in the last six months
- ◆ the burden a student's disability or illness places on a family.

Carer contact with the class/form teacher and the burden placed on the family by a student's disability or illness were factors that did not appear to be significantly associated with academic performance in the preceding analysis. However, when modelled with other factors they were found to be significant predictors of academic performance.

The occurrence of otitis media was also tested as a possible predictor of academic performance. While no significant association was found in either the preceding analysis or the data modelling, Volume One reported significantly greater risk of language problems (speech difficulties) for those with recurring ear infections.<sup>6</sup> This suggests that loss of hearing may have repercussions for language development which in turn may impact on academic performance.

These results are further described below with reference to the odds ratio calculated from the estimated logistic models.

**Use of alcohol or tobacco during pregnancy.** Aboriginal students born to mothers who had consumed both alcohol and tobacco during pregnancy were around one and a half times more likely (Odds Ratio 1.48; CI: 1.03–2.13) to be rated at low academic performance than students born to mothers who had not consumed these substances during pregnancy.

**Speech.** Whether the students had difficulties saying certain sounds was used as a measure of speech difficulties. This factor was significant, with students having speech difficulties being around one and a half times as likely (Odds Ratio 1.49; CI: 1.03–2.17) to be rated at low academic performance.

**Activities of daily living.** Students needing special help to carry out basic personal functions due to illness or disability were over five times more likely (Odds Ratio 5.31; CI: 1.60–17.50) to be rated at low academic performance. It should be noted that the number of students represented in this category was small, and the estimate of the odds ratio is associated with wide confidence intervals.



**Risk of clinically significant emotional or behavioural difficulties.** Emotional or behavioural difficulties in students was also a significant predictor of academic performance. Students at high risk of clinically significant emotional or behavioural difficulties were over three times more likely (Odds Ratio 3.29; CI: 2.31–4.69) to be rated by their teachers as having low academic performance than students at low risk. A similar finding was found for students at moderate risk of clinically significant emotional or behavioural difficulties where the corresponding odds ratio was 3.58 (CI: 2.52–5.10).

**Language spoken in the classroom.** Students who spoke Aboriginal English in the classroom were around three times more likely (Odds Ratio 2.90; CI: 1.88–4.46) to be rated at low academic performance relative to students who spoke English.

**Where the student studies.** Students who usually did their homework or study in homework classes were over two times more likely (Odds Ratio 2.32; CI: 1.62–3.30) to be rated at low academic performance relative to students who studied at home.

**Carer needed to see class teacher about a problem the student had at school in the last six months.** Students whose primary carer or their partner had needed to see the class teacher about a problem the student was having at school were almost 40 per cent more likely (Odds Ratio 1.36; CI: 1.03–1.78) to have low academic performance compared with students whose carers had not seen a class teacher.

**Number of times the student has seen a doctor in the last six months.** Students who had seen a doctor at least once in the last six months were around 1.3 times less likely (Odds Ratio 0.76; CI: 0.60–0.96) to have low academic performance relative to students who had not seen a doctor in the last six months.

**Burden that student's disability or illness places on the family.** Students who had a disability or illness that placed a burden on the family that was rated as 'very much' were over four times more likely (Odds Ratio 4.35; CI: 1.10–17.80) to be rated at low academic performance than students who did not place any burden due to disability or illness.

## ABORIGINAL LITERACY STRATEGY

The Aboriginal Literacy Strategy (ALS) is a programme administered by the Western Australian Department of Education and Training (DET). The ALS commenced in 2005 and is being implemented in 42 remote community schools. It is planned that the programme will later be implemented in other schools with large numbers of Aboriginal students.

The ALS aims to develop and train Aboriginal and Islander Education Officers, teachers and principals to deliver a sustained literacy programme in targeted schools. As part of the ALS, teaching staff engage in comprehensive professional learning and support which enables the implementation and monitoring of a focused literacy programme. The professional learning programme has been developed based on research around the effective teaching of English as a second language or second dialect. The ALS is a highly structured programme that aims to ensure continuity both across changes in staff at schools and movement of students between remote community schools.

Along with regular professional learning workshops being provided for all school staff once per term, all participating schools receive regular visits from an English Language and Literacy Consultant who provides ongoing support and localised advice.



**FIGURE 6.5:** ABORIGINAL STUDENTS AGED 4–17 YEARS — LIKELIHOOD OF BEING AT LOW ACADEMIC PERFORMANCE, ASSOCIATED WITH DEMOGRAPHIC, STUDENT, MATERNAL AND PHYSICAL HEALTH FACTORS

<i>Parameter</i>	<i>Odds Ratio</i>	<i>95% CI</i>
Sex		
Males	1.77	(1.41 - 2.22)
Females	1.00	
Age group		
4–7 years	1.00	
8–11 years	1.37	(1.03 - 1.81)
12–14 years	1.65	(1.18 - 2.29)
15–17 years	0.85	(0.55 - 1.31)
Level of Relative Isolation		
None	1.00	
Low	0.89	(0.66 - 1.20)
Moderate	1.15	(0.78 - 1.71)
High	1.88	(1.07 - 3.33)
Extreme	3.05	(1.49 - 6.25)
Use of alcohol or tobacco during pregnancy		
No alcohol or tobacco	1.00	
Alcohol, no tobacco	1.59	(0.93 - 2.74)
Tobacco, no alcohol	0.93	(0.70 - 1.23)
Alcohol and tobacco used	1.48	(1.03 - 2.13)
Primary carer is not birth mother	1.10	(0.80 - 1.52)
Whether child has difficulty saying certain sounds		
No	1.00	
Yes	1.49	(1.03 - 2.17)
Whether child needs help with basic activities of daily living		
No	1.00	
Yes	5.31	(1.60 - 17.50)
Teacher assessed risk of clinically significant emotional or behavioural difficulties		
Low	1.00	
Moderate	3.58	(2.52 - 5.10)
High	3.29	(2.31 - 4.69)
Main language spoken in the classroom		
English	1.00	
Aboriginal English	2.90	(1.88 - 4.46)
Kriol/Creole	3.92	(1.00 - 15.50)
Aboriginal language	1.39	(0.46 - 4.22)
Other	0.29	(0.05 - 1.88)
Where child usually does homework		
Doesn't do homework	0.90	(0.39 - 2.11)
At home	1.00	
At school (unsupervised)	1.01	(0.46 - 2.17)
Homework classes	2.32	(1.62 - 3.30)
Somewhere else	0.70	(0.23 - 2.12)
Not stated	1.05	(0.74 - 1.49)
Primary carer or partner needed to see the class teacher in the last 6 months		
No	1.00	
Yes	1.36	(1.03 - 1.78)
Not stated	0.49	(0.12 - 2.01)

Continued . . .



**FIGURE 6.5 (continued):** ABORIGINAL STUDENTS AGED 4–17 YEARS — LIKELIHOOD OF BEING AT LOW ACADEMIC PERFORMANCE, ASSOCIATED WITH DEMOGRAPHIC, STUDENT, MATERNAL AND PHYSICAL HEALTH FACTORS

<i>Parameter</i>	<i>Odds Ratio</i>	<i>95% CI</i>
Number of times child has seen a doctor in the last six months		
None	1.00	
Once or more	0.76	(0.60 - 0.96)
Level of family burden due to student's disability or illness		
Not at all/None	1.00	
A little	1.35	(0.77 - 2.39)
Some	0.81	(0.35 - 1.87)
Quite a lot	2.07	(0.84 - 5.07)
Very much	4.35	(1.10 - 17.80)

### HOMework CLASSES

The survey data show that homework classes are associated with negative outcomes in school performance. Three particular factors may underlie this finding. Firstly, homework classes are more likely to be associated with schools where there are higher proportions of Aboriginal student enrolments and hence potentially greater levels of poor performance generally. Secondly, the educational focus of homework classes may target actual levels of student performance rather than the level required by the homework activity. Thirdly, the classes may have a larger care or custodial function than any specific pedagogical focus with an associated performance outcome. The benefits of homework are principally twofold: to develop independent study skills; and to allow students to practice independently work they have previously done in the supervised classroom environment. Providing a classroom setting for doing homework does negate some of these benefits.

Whatever the basis for this association, the lack of any clear benefits of homework classes in the presence of a sizeable negative effect would suggest that education systems need to evaluate the cost, use and effectiveness of homework classes with a view to establishing their educational efficacy and/or other benefits or unintended consequences.





## FACTORS ASSOCIATED WITH EMOTIONAL AND BEHAVIOURAL DIFFICULTIES

Findings in this chapter confirm the strong association between emotional or behavioural difficulties in Aboriginal students and low academic performance. Results from statistical modelling described later in this chapter show that Aboriginal students at high risk of clinically significant emotional or behavioural difficulties were 2.7 times more likely to have low academic performance relative to students that were rated at low risk of such difficulties. This result is after independently taking into account the effect of a range of other student, carer, family and school factors on the likelihood of low academic performance. See the commentary box entitled *Factors that influence the academic performance of Aboriginal students* for a more detailed discussion of the relationship between emotional or behavioural difficulties and low academic performance.

Noting the importance of teacher reported emotional or behavioural difficulties as a predictor of low academic performance for Aboriginal students, previous findings from Volume Two relating to the emotional or behavioural difficulties of Aboriginal children aged 4–17 years as assessed by their primary carers are summarised here. The *Glossary* entry entitled *Strengths and Difficulties Questionnaire* contains more information about the assessment of emotional and behavioural difficulties in Aboriginal children and the differences between carer and teacher reports of such difficulties. A variety of social circumstances, health conditions and lifestyles experienced by Aboriginal children, their carers and families were found to be associated with carer reported emotional or behavioural difficulties.

### Life stress events

The number of life stress events was one of the strongest predictors of emotional or behavioural difficulties in Aboriginal children. Family strife and fear, illness and death, and problems with employment and money were examples of the most common stresses reported by carers. Just over one in five children (22 per cent) were living in families where 7 to 14 of these major life stress events had occurred in the preceding 12 months. These children were five and a half times more likely to be at high risk of clinically significant emotional or behavioural difficulties than children in families where 2 or less life stress events had occurred.

### Family and household factors

A range of family and household factors were found to be significantly associated with high risk of clinically significant emotional and behavioural difficulties in Aboriginal children. Factors included:

- ◆ **Quality of parenting.** Children living in families with poor parenting quality were four times more likely to be at high risk than children living in families with very good quality of parenting
- ◆ **Family functioning.** Children living in families that functioned poorly were over twice as likely to be at high risk compared with children living in families with very good family functioning

*Continued . . .*



### FACTORS ASSOCIATED WITH EMOTIONAL AND BEHAVIOURAL DIFFICULTIES *(continued)*

- ◆ **Sole parent.** Children in the care of a sole parent were almost twice as likely to be at high risk than children living with both their parents
- ◆ **Number of homes lived in.** Children who had lived in five or more different homes since birth were one and a half times as likely to be at high risk than children who had lived in fewer than five homes
- ◆ **Household occupancy.** Children living in homes with a high household occupancy level were half as likely to be at high risk compared with children living in homes with a low household occupancy level
- ◆ **Level of Relative Isolation.** Children living in areas of extreme isolation were one-fifth as likely to be at high risk than children in the Perth metropolitan area.

#### Carer factors

Children in the primary care of a person with a long term and limiting medical condition were three and a half times more likely to be at high risk of clinically significant emotional or behavioural difficulties than children whose primary carer had no medical condition lasting six months or more.

Children in the primary care of a person who had used Mental Health Services in Western Australia were one and a half times more likely to be at high risk than children in the primary care of a person who had not accessed these services.

#### Child factors

Children with a speech difficulty (having trouble saying certain sounds) were over three times more likely to be at high risk of clinically significant emotional or behavioural difficulties than children without a speech difficulty.

Children suffering from runny ears (a more severe form of otitis media) were over one and a half times more likely to be at high risk than children not suffering from runny ears.

Children without normal vision in both eyes were over one and a half times more likely to be at high risk than children with normal vision in both eyes.

#### Further details

Analysis of emotional or behavioural difficulties previously reported in Volume Two of the WAACHS have been summarised here as these findings have relevance in the current context of the academic performance of Aboriginal students. For full details of the factors associated with emotional or behavioural difficulties in Aboriginal children and recommendations flowing from these findings, see Volume Two which can be downloaded from our web site: [www.ichr.uwa.edu.au](http://www.ichr.uwa.edu.au).



## CARER FACTORS AND ACADEMIC PERFORMANCE

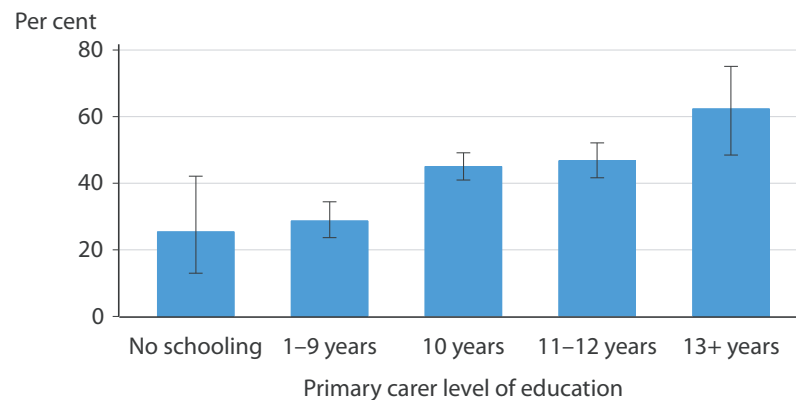
This section examines the associations between carer level factors and the academic performance of Aboriginal students.

### CARER SOCIOECONOMIC STATUS

#### Carer education

A higher proportion of students cared for by carers who had completed a diploma, bachelor degree, postgraduate diploma or higher degree (see *carer education* in *Glossary*) were rated by their teachers at average or above average academic performance (62.3 per cent; CI: 48.5%–75.1%). The corresponding proportion for students with carers who did not attend school was 25.4 per cent (CI: 13.0%–42.1%) while for students with carers who had completed 1–9 years of education the proportion was 28.7 per cent (CI: 23.7%–34.4%) (Figure 6.6).

**FIGURE 6.6:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY PRIMARY CARER LEVEL OF EDUCATION



Source: Table 6.20

#### Carer labour force status

Primary carer's labour force status was also significantly associated with their children's academic performance. Over six in ten students whose carer was not in the labour force (62.6 per cent; CI: 59.1%–66.0%) were rated at low academic performance. This was significantly higher than the proportion of students rated at low academic performance whose carers were in the labour force (52.8 per cent; CI: 48.8%–56.9%), and students whose carers were employed (50.9 per cent; CI: 46.2%–55.5%) (Table 6.21).

### OTHER CARER FACTORS

#### Carer's physical and mental health

No significant association was found between whether the primary carer had a limiting medical condition and student academic performance (Table 6.22) or between whether the primary carer has had contact with Mental Health Services in Western Australia and student academic performance (Table 6.23).



### Birth Mother

No significant association was found between whether the carer was the natural birth mother and Aboriginal students' academic performance (Table 6.24).

### Forced separation

There was no significant association found between whether the primary carer or the secondary carer of the student had been forcibly separated from their natural family by a mission, the government or welfare and the academic performance of the student (Table 6.25).

### Primary carer ever arrested or charged with an offence

No significant association was found between whether the primary carer had ever been arrested or charged with an offence and academic performance (Table 6.26).

### Carer can discuss their problems with someone

Primary carers were asked if they had anyone to yarn to about their problems. Among students whose primary carer did have someone to yarn to, 43.8 per cent (CI: 40.9%–46.7%) were rated at average or above average academic performance, compared with 32.2 per cent (CI: 24.2%–40.8%) of students whose primary carer did not have someone to yarn to (Table 6.27).

### Aboriginal status of the primary carer

A higher proportion of students who were cared for by primary carers that were non-Aboriginal were rated at average or above average academic performance (61.3 per cent; CI: 54.8%–67.8%), compared with students cared for by primary carers who were Aboriginal or Torres Strait Islander (38.9 per cent; CI: 36.0%–42.0%) (Table 6.28).

### Primary carer participation in cultural activities

A higher proportion of students who were cared for by primary carers that had attended an Aboriginal funeral in the last 12 months were rated at low academic performance (61.7 per cent; CI: 58.6%–64.9%) than students whose primary carer had not attended an Aboriginal funeral (46.9 per cent; CI: 41.6%–52.1%) (Table 6.29).

A similar result was found when academic performance was analysed by carer attendance at Aboriginal ceremonies. Over seven in ten students (71.4 per cent; CI: 65.3%–77.0%) whose primary carer had attended an Aboriginal ceremony in the last 12 months were rated at low academic performance. This was significantly higher than the corresponding proportion whose primary carer had not attended an Aboriginal ceremony (54.2 per cent; CI: 51.3%–57.1%) (Table 6.29).

There was no significant difference in the proportion of students at low academic performance by primary carer attendance at Aboriginal festivals/carnivals in the last 12 months or involvement in Aboriginal organisations (Table 6.29).



### Carer satisfaction with schools

Carers were also asked a series of questions relating to their satisfaction with the school their children were attending. No significant association was found between Aboriginal students' levels of academic performance and whether the carer felt welcome at the school (Table 6.30), whether the carer felt they could sort out problems at the school (Table 6.30), or how happy the primary carer was with the job the school was doing (Table 6.31).

## MODELLING OVERALL ACADEMIC PERFORMANCE – ASSOCIATIONS WITH CARER FACTORS

Statistical modelling was used to test each carer level factor to determine the degree to which it was associated with the likelihood of Aboriginal students being rated at low academic performance. In the analysis of carer factors and academic performance described previously in this section, primary carer education, labour force participation, primary carer being able to discuss their problems with someone, Aboriginal status of the primary carer and primary carer attendance at Aboriginal funerals and ceremonies were found to be significantly associated with academic performance in Aboriginal students.

Modelling of carer factors identified that, in addition to primary carer level of education and labour force status, a further three factors were significant predictors of academic performance in Aboriginal students — the physical health of the primary carer, primary carer contact with Mental Health Services in Western Australia and forced separation of the primary carer from their natural family by a mission, the government or welfare. Three other carer factors appeared to be significantly associated with low academic performance in the preceding analysis but, when taking into account other factors in the modelling process, were not found to be significant predictors of low academic performance. These were: the Aboriginal status of the primary carer, primary carer being able to discuss their problems with someone, and primary carer attendance at Aboriginal ceremonies (Figure 6.7).

Six carer factors were found to be predictors of low academic performance independently of demographic and other carer factors:

**Primary carer level of education.** Primary carer education was a positive factor in lowering the likelihood of low academic performance in Aboriginal students. Aboriginal students in the primary care of a person who had completed 13 or more years of schooling were around two times less likely (Odds Ratio 0.47; CI: 0.29–0.75) to be rated at low academic performance relative to students whose primary carer had 10 years of education.

**Primary carer labour force status.** Labour force participation by the primary carer was also found to be a significant predictor of Aboriginal students' academic performance. Students in the care of a primary carer who was not in the labour force were around 40 per cent more likely (Odds Ratio 1.37; CI: 1.08–1.76) to be rated at low academic performance compared with students whose primary carer was employed.



**Primary carer's physical health.** Aboriginal students in the care of a primary carer that suffered from a long term non-limiting medical condition were almost 40 per cent more likely (Odds Ratio 1.39; CI: 1.06–1.81) to have low academic performance relative to students whose primary carer did not suffer a long term medical condition.

**Primary carer's mental health.** Aboriginal students whose primary carer had made use of Mental Health Services in Western Australia were around 30 per cent more likely (Odds Ratio 1.32; CI: 1.01–1.73) to be rated at low academic performance than students whose primary carer had not accessed these services.

**Primary carer forcibly separated from their natural family.** Aboriginal students in the care of a primary carer who was forcibly separated from their natural family by a mission, the government or welfare were over 50 per cent more likely (Odds Ratio 1.56; CI: 1.07–2.29) to be at low academic performance compared with Aboriginal students whose primary carer had not been forcibly separated.

**Primary carer attended an Aboriginal funeral in the last 12 months.** Aboriginal students in the care of a primary carer who had not attended an Aboriginal funeral in the last 12 months were almost 1.3 times less likely (Odds Ratio 0.77; CI: 0.60–1.00) to be rated at low academic performance than students whose primary carer attended an Aboriginal funeral.



**FIGURE 6.7:** ABORIGINAL STUDENTS AGED 4–17 YEARS — LIKELIHOOD OF BEING AT LOW ACADEMIC PERFORMANCE, ASSOCIATED WITH CARER FACTORS

<i>Parameter</i>	<i>Odds Ratio</i>	<i>95% CI</i>
Sex		
Males	2.17	(1.75 - 2.69)
Females	1.00	
Age group		
4–7 years	1.00	
8–11 years	1.39	(1.08 - 1.80)
12–14 years	1.60	(1.18 - 2.17)
15–17 years	0.76	(0.50 - 1.15)
Level of Relative Isolation		
None	1.00	
Low	0.86	(0.65 - 1.15)
Moderate	1.10	(0.76 - 1.60)
High	2.36	(1.41 - 3.95)
Extreme	2.54	(1.38 - 4.67)
Primary carer level of education		
Did not attend school	2.28	(0.97 - 5.36)
1–9 years education	1.48	(1.09 - 2.00)
10 years education	1.00	
11–12 years education	1.09	(0.83 - 1.42)
13 or more years education	0.47	(0.29 - 0.75)
Not stated	1.21	(0.89 - 1.63)
Primary carer labour force status		
Unemployed	1.29	(0.89 - 1.88)
Employed	1.00	
Not in labour force	1.37	(1.08 - 1.76)
Not stated	1.21	(0.89 - 1.63)
Whether primary carer has a medical condition lasting six months or more		
No medical condition	1.00	
Medical condition – not limiting	1.39	(1.06 - 1.81)
Medical condition – limiting	1.04	(0.74 - 1.47)
Not stated	1.21	(0.89 - 1.63)
Primary carer has had contact with Mental Health Services in Western Australia?		
No	1.00	
Yes	1.32	(1.01 - 1.73)
Consent for record linkage not given	0.42	(0.19 - 0.92)
Primary carer forcibly separated from natural family?		
Not separated	1.00	
Separated	1.56	(1.07 - 2.29)
Not known	0.86	(0.46 - 1.61)
Not applicable	0.56	(0.41 - 0.77)
Primary carer attended an Aboriginal funeral in the last 12 months?		
No	0.77	(0.60 - 1.00)
Yes	1.00	
Not stated	1.21	(0.89 - 1.63)



## ABORIGINAL STUDENTS ACADEMIC PERFORMANCE: INTERNATIONAL COMPARISONS

Wide inequalities in educational outcomes are evident for Australian Aboriginal people. In Chapter 5, international evidence was presented showing that the level of educational disparity between Australian Aboriginal students and the general population was two to three times greater than that of Māori, Native American and Canadian First nations students. Findings later in this chapter (see commentary box entitled *Factors that influence the academic performance of Aboriginal students*) suggest that three key factors are associated with improvements in the academic performance of Aboriginal students. These include:

- ◆ School attendance
- ◆ Carer education
- ◆ Risk of clinically significant emotional or behavioural difficulties.

International comparisons of selected Indigenous students with Australian Aboriginal students suggest that Indigenous students living in Canada, New Zealand and the United States have better school attendance and levels of carer education relative to Australian Aboriginal students. As noted in Chapter 4, Māori students in New Zealand, American Indian and Alaskan Native students all had better levels of school attendance than Aboriginal students in Western Australia. Comparisons between Australia and New Zealand based on 2001 Census data also show that the proportion of New Zealand Māoris aged 18–24 years who have a Year 12 education or equivalent is around 36 per cent. This is 7 percentage points higher than the corresponding proportion for Australian Aboriginal people (29 per cent).<sup>7,8</sup> Unfortunately, very few international comparisons can be made between Indigenous children's emotional or behavioural difficulties and comparable data from the WAACHS. However, respondents in the *Canadian First Nations and Inuit Regional Health Survey* reported that about 17 per cent of their children had emotional or behavioural difficulties in the last six months.<sup>9</sup> This proportion is in line with findings from the WAACHS.

As later results in this chapter show, good school attendance and carer education are two key drivers of the academic performance of Australian Aboriginal students. The international comparisons described here, along with statistical modelling, strongly suggest that improvements in Aboriginal students' school attendance, emotional and behavioural wellbeing and carer education are critical for improvements in levels of academic performance.

Findings from Volume Two also highlighted that, in general, Indigenous peoples in Canada, New Zealand and the United States enjoy better outcomes on a range of health and socioeconomic indicators relative to Australian Aboriginal peoples. There is also evidence that these countries have done more to advance life outcomes of their Indigenous people in the last thirty years than Australia.<sup>6,10</sup> Advancing life outcomes for Australian Aboriginal students on a range of these indicators may be a necessary first step before substantial improvements in academic performance can be achieved. There could be value in assessing how the lessons from these overseas jurisdictions could be applied to improving the performance of Australian Aboriginal students.





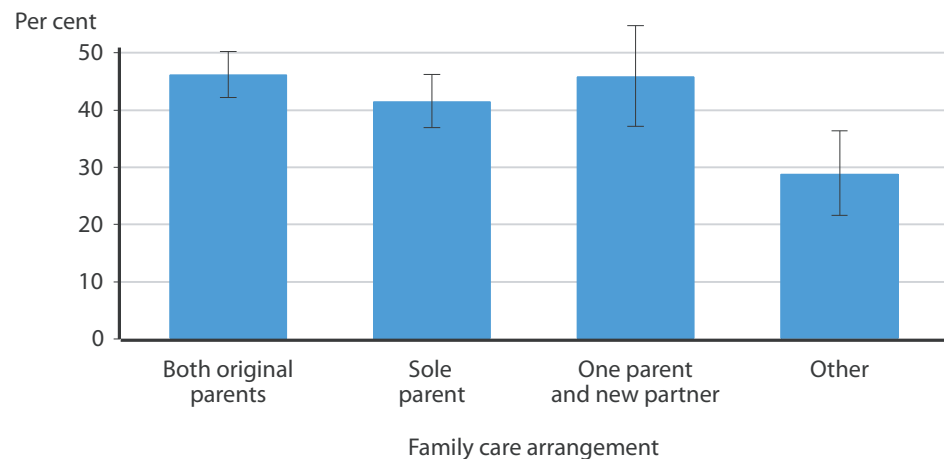
## FAMILY AND HOUSEHOLD ENVIRONMENT FACTORS AND ACADEMIC PERFORMANCE

### FAMILY ENVIRONMENT

#### Family care arrangement

The highest proportion of students at average or above average academic performance were living in households where family care arrangements included both original parents (46.1 per cent; CI: 42.2%–50.2%). This was significantly higher than the proportion who were cared for by ‘other’ family care arrangements (e.g. aunts/uncles) (28.8 per cent; CI: 21.6%–36.4%) (Figure 6.8). No significant difference in academic performance was found where the care arrangements in the household included both original parents, a sole parent, or one parent and a new partner.

**FIGURE 6.8:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY FAMILY CARE ARRANGEMENT



Source: Table 6.32

#### Family functioning

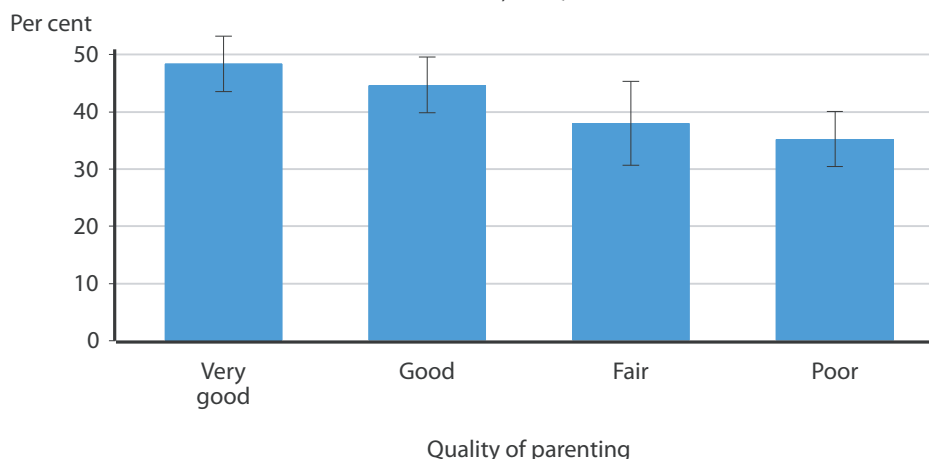
No significant association was found between family functioning (see *Glossary*) and academic performance (Table 6.33). However, there does appear to be a trend towards a higher proportion of students at average or above average academic performance as family functioning is classified from poor to very good.

#### Quality of parenting

Quality of parenting (see *Glossary*) by the carers of Aboriginal students was associated with academic performance. Almost half of all students (48.4 per cent; CI: 43.5%–53.2%) were rated at average or above average academic performance where their primary carer’s parenting quality was rated as very good. This was significantly higher than the one in three students (35.1 per cent; CI: 30.5%–40.1%) rated at average or above average academic performance where their carer’s quality of parenting was poor (Figure 6.9).



**FIGURE 6.9:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY QUALITY OF PARENTING



Source: Table 6.34

#### Associations with other family factors

No significant association was found between number of life stress events experienced and academic performance (Table 6.35). Nor was any association found between family financial strain and academic performance (Table 6.36).

### HOUSEHOLD ENVIRONMENT

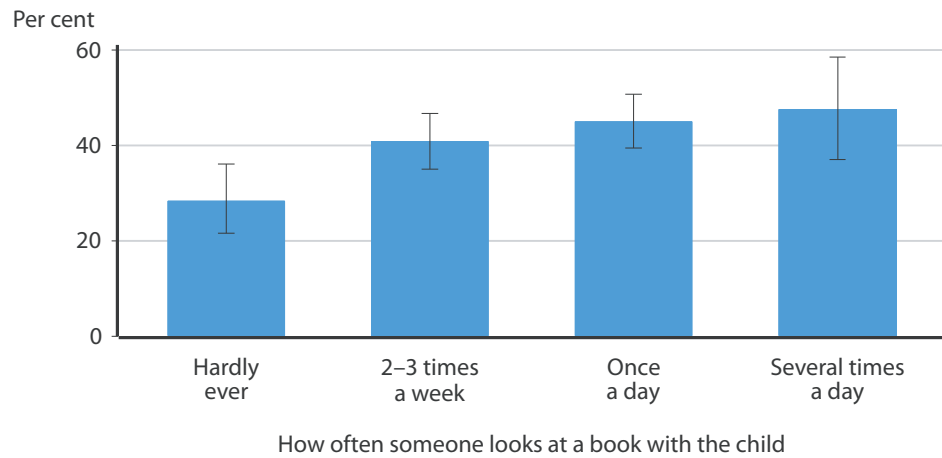
#### Reading a book with the child at home

Where children were aged 4–11 years, carers were asked how often someone from the household looked at a book with the child. This type of involvement in a child’s education was found to be associated with academic performance.

Where someone from the household looked at a book several times a day with the child, the proportion of students at average or above average academic performance was 47.8 per cent (CI: 37.6%–59.2%). Where someone looked at a book with the child once a day, 45.6 per cent (CI: 40.1%–51.4%) were at average or above average academic performance. Both of these proportions were significantly higher than the corresponding proportion where someone from the household hardly ever looked at a book with the child (28.6 per cent; CI: 21.1%–36.3%) (Figure 6.10).



**FIGURE 6.10:** STUDENTS AGED 4–11 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY HOW OFTEN SOMEONE FROM THE HOUSEHOLD LOOKS AT A BOOK WITH THE CHILD



Source: Table 6.37

#### Household occupancy level

Household occupancy levels (see *Glossary*) were strongly associated with academic performance. A higher proportion of students living in homes with low household occupancy levels (46.8 per cent; CI: 43.6%–50.0%) were found to be at average or above average academic performance compared with 30.0 per cent (CI: 25.6%–34.5%) of students living in homes with high household occupancy (Table 6.38).

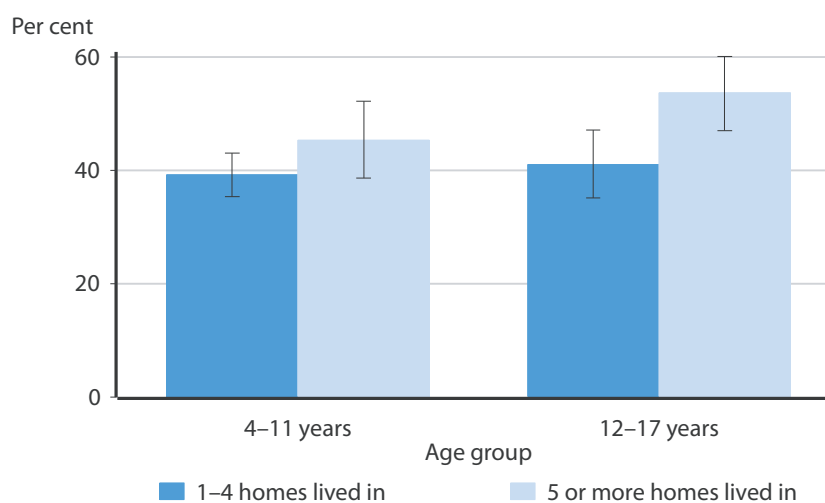
#### Number of different homes lived in

A higher proportion of students who had lived in five or more different homes since birth were rated at average or above average academic performance (48.9 per cent; CI: 44.3%–53.6%), than students who had lived in fewer than five different homes (39.8 per cent; CI: 36.6%–43.2%) (Table 6.39).

This result was most pronounced for students aged 12–17 years, where 53.7 per cent (CI: 47.0%–60.1%) of students who had lived in five or more homes were rated at average or above average academic performance. The corresponding proportion of those students who had lived in fewer than five homes since birth was 41.1 per cent (CI: 35.2%–47.2%). This difference was very close to reaching statistical significance (Figure 6.11).



**FIGURE 6.11:** STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY AGE GROUP AND NUMBER OF DIFFERENT HOMES LIVED IN



Source: Table 6.39

### Number of primary schools attended

Primary carers were asked how many primary schools and high schools their children had attended. Neither factor was significantly associated with academic performance (Tables 6.40, 6.41).

### Parental encouragement of schooling

Aboriginal young people aged 12–17 years were asked how much encouragement they received from their parents/family for three items relating to schooling:

- ◆ to achieve good marks
- ◆ to attend school regularly
- ◆ to finish Year 12.

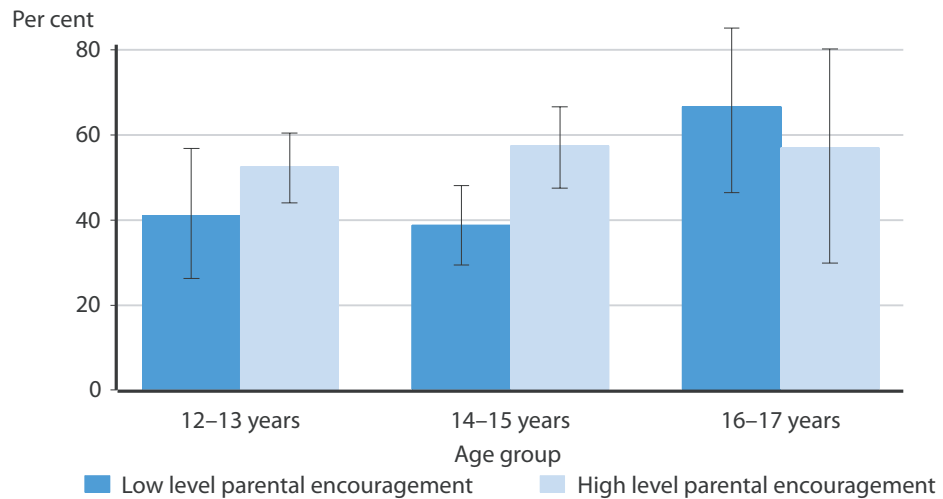
Young people were asked to rate each of these statements on a five point scale: ‘none’, ‘a little’, ‘some’, ‘quite a lot’, and ‘very much’. Based on these responses, Aboriginal young people were considered to have a high level of parental/family encouragement if they received quite a lot or very much encouragement for each of the three items. Otherwise, they were classified as receiving a low level of parental/family encouragement.

Over half of the students in families that had a high level of parental/family encouragement of schooling were rated at average or above average academic performance (54.9 per cent; CI: 48.7%–60.9%). The corresponding proportion for students who had a low level of parental/family encouragement was 42.9 per cent (CI: 34.8%–50.8%) (Table 6.42).



The importance of parental encouragement of schooling was most evident in younger age groups. A higher proportion of students aged 12–13 years and 14–15 years that had high levels of parental encouragement of schooling were rated at average or above average academic performance compared with the same age groups that had low levels of parental encouragement (Figure 6.12).

**FIGURE 6.12:** ABORIGINAL STUDENTS AGED 12–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY PARENTAL/FAMILY ENCOURAGEMENT OF SCHOOLING AND AGE GROUP



Source: Table 6.42

## SOCIAL ENVIRONMENT OF THE HOUSEHOLD

### Overuse of alcohol causes problems in the household

Primary carers were asked if overuse of alcohol caused problems in their household. Among those students whose carers reported such problems, 32.1 per cent (CI: 24.6%–40.9%) were rated at average or above average academic performance. This proportion was significantly lower than the 44.3 per cent (CI: 41.5%–47.2%) of students who were living in households where the overuse of alcohol did not cause problems (Table 6.43).

### Gambling causes problems in the household

No association was found between gambling causing problems in the household and academic performance (Table 6.44).

### Primary carer and partner/spouse argue with each other

No significant association was found between how often the primary carer and spouse/partner argued and academic performance (Table 6.45).

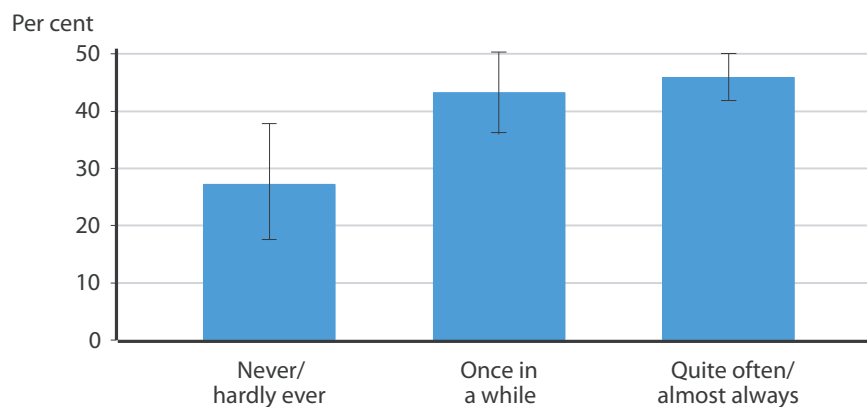
### Primary carer and partner/spouse care for each other

For students living in families where the primary carer had a spouse or partner, a higher proportion were rated at average or above average academic performance (45.9 per cent; CI: 41.9%–50.1%) where the primary carer and spouse/partner ‘quite



often' or 'almost always' showed signs that they care for each other, compared with students in families where carers 'never' or 'hardly ever' showed signs that they care for each other (27.2 per cent; CI: 17.6%–37.8%) (Figure 6.13).

**FIGURE 6.13:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY HOW OFTEN PRIMARY CARER AND SPOUSE/PARTNER SHOW SIGNS THAT THEY CARE FOR EACH OTHER



Source: Table 6.46

### Home ownership

Home ownership was significantly associated with the academic performance of Aboriginal students. A higher proportion of students living in households that were either owned outright or being paid off (54.5 per cent; CI: 48.9%–60.0%) were at average or above average academic performance than students living in rented households (38.9 per cent; CI: 35.7%–42.1%) (Table 6.47).

## MODELLING OVERALL ACADEMIC PERFORMANCE – ASSOCIATIONS WITH FAMILY AND HOUSEHOLD FACTORS

Multivariate logistic modelling was used to investigate the association between various family and household factors and low academic performance. After adjusting for students' sex, age and LORI, the following seven factors were found to be independently associated with low academic performance: family care arrangement; quality of parenting; how often someone from the household looks at a book with the student; level of household occupancy; number of homes lived in; whether gambling causes problems in the household; and home ownership (Figure 6.14).

**Family care arrangement.** Aboriginal students aged 4–17 years who were cared for by 'other' family care arrangements such as aunts/uncles were almost 70 per cent more likely (Odds Ratio 1.65; CI: 1.14–2.37) to be rated at low academic performance compared with students living with both original parents.



**Quality of parenting.** Students living in households where quality of parenting was poor were around 40 per cent more likely (Odds Ratio 1.41; CI: 1.05–1.89) to be rated at low academic performance than students living in households with very good quality of parenting.

**How often someone from the household looks at a book with the student.** Household involvement in learning was also an important factor associated with academic performance. Students aged 4–11 years where someone from the household hardly ever looked at a book with them were 65 per cent more likely (Odds Ratio 1.65; CI: 1.01–2.71) to be at low academic performance than students living in households where someone looked at a book with them several times a day.

**Household occupancy level.** Students living in households with a high level of household occupancy were almost one and a half times more likely (Odds Ratio 1.47; CI: 1.12–1.94) to be rated at low academic performance relative to students living in households with low household occupancy.

**Number of homes lived in since birth.** Residential mobility was also identified as another factor significantly associated with academic performance. Students who had lived in five or more homes were around 1.4 times less likely (Odds Ratio 0.73; CI: 0.57–0.92) to be rated at low academic performance compared with students who had lived in four or fewer homes.

**Gambling causes problems in the household.** Where gambling was a cause of problems in the household, students were around 1.8 times more likely (Odds Ratio 1.81; CI: 1.02–3.24) to be rated at low academic performance than students from households where gambling did not cause problems.

**Home ownership.** Compared with students living in households who were either owned outright or being paid off, students living in rented households were around one and a half times more likely (Odds Ratio 1.48; CI: 1.14–1.92) to be rated at low academic performance.



**FIGURE 6.14:** ABORIGINAL STUDENTS AGED 4–17 YEARS — LIKELIHOOD OF BEING AT LOW ACADEMIC PERFORMANCE, ASSOCIATED WITH DEMOGRAPHIC AND FAMILY AND HOUSEHOLD ENVIRONMENT FACTORS

<i>Parameter</i>	<i>Odds Ratio</i>	<i>95% CI</i>
<b>Sex</b>		
Males	2.08	(1.69 - 2.58)
Females	1.00	
<b>Age group</b>		
4–7 years	1.00	
8–11 years	1.33	(1.02 - 1.73)
12–14 years	2.39	(1.26 - 4.52)
15–17 years	1.27	(0.60 - 2.67)
<b>Level of Relative Isolation</b>		
None	1.00	
Low	0.80	(0.60 - 1.06)
Moderate	1.06	(0.73 - 1.53)
High	1.73	(1.02 - 2.96)
Extreme	2.01	(1.06 - 3.79)
<b>Family care arrangement</b>		
Both original parents	1.00	
Sole parent	1.12	(0.87 - 1.45)
One original parent and new partner	1.06	(0.71 - 1.59)
Other (e.g. aunts/uncles)	1.65	(1.14 - 2.37)
<b>Quality of parenting</b>		
Very good	1.00	
Good	1.18	(0.90 - 1.55)
Fair	1.28	(0.91 - 1.80)
Poor	1.41	(1.05 - 1.89)
<b>How often someone looks at a book with the child (children aged 4–11 years only)</b>		
Several times a day	1.00	
Once a day	1.15	(0.74 - 1.78)
2–3 times a week	1.23	(0.78 - 1.93)
Hardly ever	1.65	(1.01 - 2.71)
Not applicable	0.78	(0.37 - 1.64)
<b>Household occupancy level</b>		
Low	1.00	
High	1.47	(1.12 - 1.94)
Not stated	1.10	(0.78 - 1.54)
<b>Number of homes lived in since birth</b>		
1–4 homes	1.00	
5 or more homes	0.73	(0.57 - 0.92)
<b>Gambling causes problems in the household?</b>		
No	1.00	
Yes	1.81	(1.02 - 3.24)
Not stated	1.10	(0.78 - 1.54)
<b>Home ownership</b>		
Owned or being paid off	1.00	
Rented	1.48	(1.14 - 1.92)
Other	1.10	(0.57 - 2.10)
Not stated	1.10	(0.78 - 1.54)





## SCHOOL ENVIRONMENT AND ACADEMIC PERFORMANCE

### SCHOOL ENVIRONMENT FACTORS

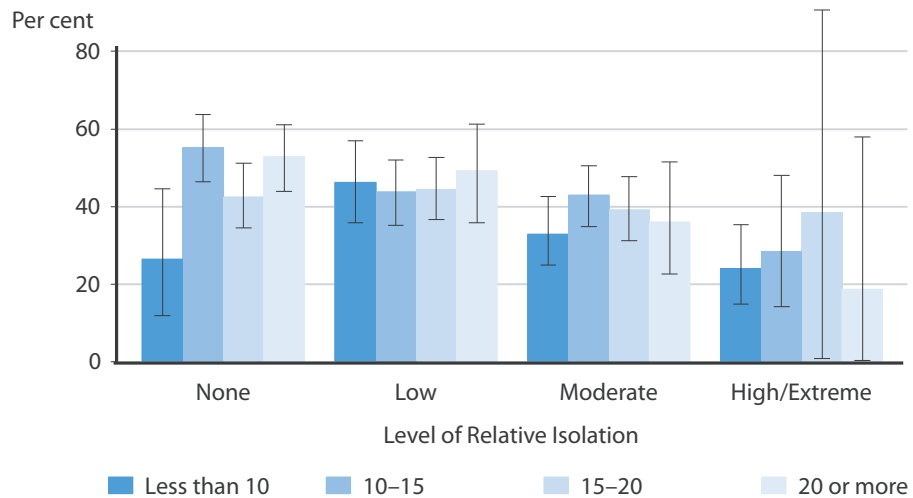
#### Student to teacher ratio

The ratio of students to teachers is one measure of teacher and student interaction in the classroom. In this publication it has been calculated as the ratio of number of students attending a surveyed school to the number of full-time equivalent teaching staff at the school (see *Chapter 3* for more details).

The student to teacher ratio has been analysed in the context of student’s academic performance. Almost half of students (48.2 per cent; CI: 41.6%–54.4%) attending schools where the student to teacher ratio was 20 or more were rated at average or above average academic performance. This was significantly higher than the 28.9 per cent (CI: 23.1%–35.6%) of students rated at average or above average academic performance who attended schools where the student to teacher ratio was less than 10 (Table 6.48).

The association between the student to teacher ratio and academic performance was most evident in the Perth metropolitan area (no relative isolation) (Figure 6.15).

**FIGURE 6.15:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY STUDENT TO TEACHER RATIO AND LEVEL OF RELATIVE ISOLATION



Source: Table 6.49

#### Teachers new to teaching

No association was found between the proportion of teaching staff new to teaching and academic performance (Table 6.50).

#### Staff new to school

Academic performance was also investigated in terms of the proportion of total staff new to the school this year. This factor was significantly associated with Aboriginal students’ academic performance. For those students attending schools where 15 per



cent or more of staff were new to the school, a little under four in ten students (37.7 per cent; CI: 33.3%–42.3%) were found to be at average or above average academic performance. This was significantly lower than the corresponding proportion of students attending schools where less than 15 per cent of staff were new to the school (45.9 per cent; CI: 42.3%–49.5%) (Table 6.51).

### School attendance

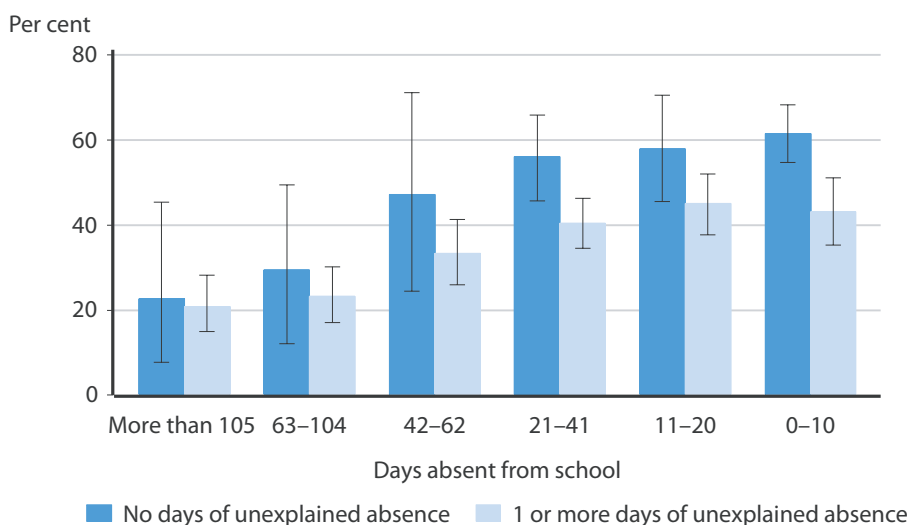
School attendance was significantly associated with academic performance. Among students who were absent from school for 10 days or less, 55.8 per cent (CI: 50.4%–60.9%) were rated at average or above average academic performance. This was significantly higher than the 21.0 per cent (CI: 15.3%–27.7%) of students rated at average or above average academic performance who were absent from school for 105 days or more, or the 23.9 per cent (CI: 18.2%–30.6%) of students who were absent from school between 63 and 104 days (Table 6.52).

### Unexplained absence

Unexplained absence from school was also significantly associated with academic performance. A higher proportion of Aboriginal students who had more than 10 days of unexplained absence were rated at low academic performance (68.2 per cent; CI: 64.2%–71.8%) compared with students that had no unexplained absence (43.2 per cent; CI: 38.3%–48.0%) (Table 6.53).

Irrespective of the number of days of absence from school, the proportion of students at average or above average academic performance was consistently higher where none of these absences were unexplained. For example, for students absent from school for 10 days or less, the proportion of students rated at average or above average academic performance who had no days of unexplained absence was 61.5 per cent (CI: 54.8%–68.3%), significantly higher than the 43.2 per cent (CI: 35.3%–51.2%) of students with at least one day of unexplained absence (Figure 6.16).

**FIGURE 6.16: ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY DAYS ABSENT FROM SCHOOL AND NUMBER OF DAYS OF UNEXPLAINED ABSENCE**



Source: Table 6.54



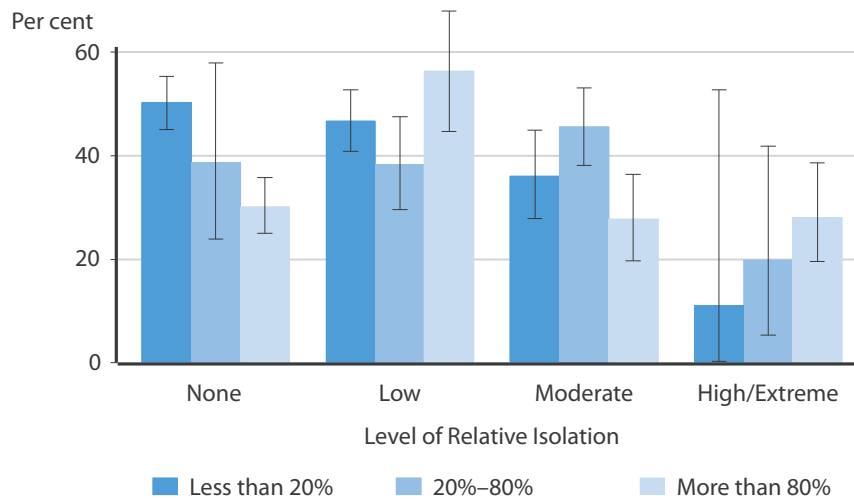
### Proportion of students who are Aboriginal

The number of Aboriginal students as a proportion of the total school student population was significantly associated with students academic performance. For schools where Aboriginal students made up less than 20 per cent of total student numbers, 46.9 per cent (CI: 43.4%–50.6%) of Aboriginal students were rated at average or above average academic performance. In contrast, 29.3 per cent (CI: 23.4%–36.2%) of Aboriginal students attending schools where the proportion of Aboriginal students was in excess of 80 per cent were rated at average or above average academic performance (Table 6.55).

This result was most pronounced in the Perth metropolitan area, where one in two Aboriginal students (50.3 per cent; CI: 45.1%–55.4%) that attended schools where the proportion of Aboriginal students in the school was less than 20 per cent were rated at average or above average academic performance. This was significantly higher than the three in ten students (30.1 per cent; CI: 25.0%–35.8%) rated at average or above average that attended schools where the proportion of Aboriginal students was 80 per cent or more.

In areas of high/extreme isolation this result was reversed, where there was a trend towards higher proportions of students at average or above average academic performance as the proportion of Aboriginal students increased. However, these differences were not statistically significant (Figure 6.17).

**FIGURE 6.17:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY PROPORTION OF STUDENTS WHO ARE ABORIGINAL AND LEVEL OF RELATIVE ISOLATION



Source: Table 6.56

### Carer involvement in schooling

No significant association was found between academic performance and the school principal’s rating of Aboriginal parents’ involvement in school activities and children’s learning (Table 6.57).



### School principal's assessment of learning, teaching and support programmes

No significant association was found between academic performance and an index of principal's assessment of learning, teaching and support programmes for all students (Table 6.58) or an index for Aboriginal students (Table 6.59). For further information on the principal's assessment of learning, teaching and support programmes, see *Appendix C – Measures derived from multiple responses and scales*.

### Professional Development and curriculum activities

Overall academic performance was also analysed by whether schools had implemented Professional Development programmes. For further details of these Professional Development programmes, see Chapter 3.

Around six in ten (58.6 per cent; CI: 46.8%–70.3%) students attending schools that had not implemented one or more of eight Professional Development programmes were rated at average or above average academic performance. This was significantly higher than the 41.3 per cent (CI: 38.4%–44.2%) of students attending schools that had implemented at least one Professional Development programme (Table 6.60).

The same trend was found when overall academic performance was analysed by the number of Professional Development programmes implemented (Table 6.61).

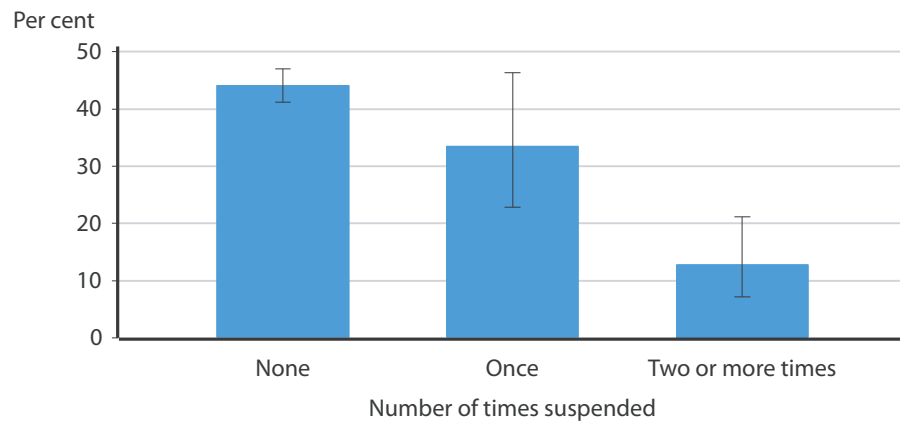
### School suspension

Of those students who had not been suspended during the school year, 44.1 per cent (CI: 41.2%–47.0%) were rated at average or above average academic performance. This was significantly higher than the 25.1 per cent (CI: 17.9%–33.7%) rated at average or above average academic performance who had been suspended from school during the school year (Table 6.62).

The impact of school suspension on academic performance has been further analysed by the number of suspensions from school during the year. A lower proportion of students who had been suspended on two or more occasions (12.8 per cent; CI: 7.1%–21.2%) were rated at average or above average academic performance than students who had not been suspended (44.1 per cent; CI: 41.2%–47.0%) (Figure 6.18).



**FIGURE 6.18:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY NUMBER OF TIMES SUSPENDED FROM SCHOOL



Source: Table 6.63

### Repeating a grade

A higher proportion of students who had repeated a grade were rated at low academic performance (82.5 per cent; CI: 72.5%–89.4%) than students who had not repeated a grade (56.6 per cent; CI: 53.8%–59.5%) (Table 6.64).

### Removal from formal instruction

A higher proportion of students who were frequently removed from formal instruction were rated at low academic performance (83.5 per cent; CI: 75.8%–89.5%) compared with students who had never been removed from formal instruction (52.2 per cent; CI: 48.9%–55.4%) (Table 6.65).

### Exclusion from school

No association was found between exclusion from school and academic performance (Table 6.66).

### School has ASSPA or AIEO

No significant association between academic performance and whether the school has an Aboriginal Student Support and Parent Awareness (ASSPA) committee (Table 6.67) or AIEO (Table 6.68) was found. The AIEO programme is discussed in more detail in the commentary box entitled *Aboriginal and Islander Education Officers (AIEOs) and Aboriginal Teaching Aides (ATAs)* in Chapter 2.

### Socioeconomic status of the school

A Socioeconomic Index for schools (see *Glossary*), ranking the socioeconomic status of government schools, was provided by the Western Australian Department of Education and Training. A significantly higher proportion of Aboriginal students attending schools ranked in the lowest Socioeconomic Index Quintile were rated at low academic performance (70.2 per cent; CI: 63.9%–76.1%) compared with students attending schools ranked in the highest Socioeconomic Index Quintile (52.5 per cent; CI: 44.4%–60.7%) (Table 6.69).



## MODELLING OVERALL ACADEMIC PERFORMANCE – ASSOCIATIONS WITH SCHOOL ENVIRONMENT FACTORS

A multivariate logistic regression model was estimated to investigate the independent effects of various school environment factors analysed previously on the probability of having low academic performance. Independently of a student's sex, age, LORI and school type, seven factors were found to be associated with the likelihood of low academic performance. These included: student to teacher ratio, school attendance, unexplained absence from school, implementation of professional development programmes, suspension from school, repeating a grade and how often a student was removed from formal instruction. Figure 6.19 presents the results of this modelling.

**Student to teacher ratio.** The ratio of students to teachers was found to be a factor associated with academic performance. Students who attended schools where the student to teacher ratio was 20 or more were around two and a half times less likely (Odds Ratio 0.41; CI: 0.25–0.67) to have low academic performance, relative to students attending schools where this ratio was less than 10.

**School attendance.** School attendance was found to be a significant factor in explaining academic performance. Relative to students who were absent from school for 10 days or less, students absent from school for 105 days or more were over three times more likely (Odds Ratio 3.06; CI: 1.70–5.51) to have low academic performance. Students who were absent between 63 and 104 days were also around three times more likely (Odds Ratio 3.11; CI: 1.88–5.15) to be rated at low academic performance relative to students that were absent from school for 10 days or less.

**Unexplained absence from school.** Over and above the impact of school attendance, unexplained absence from school was a significant predictor of low academic performance. Students that had more than 10 days of unexplained absence were almost two times more likely (Odds Ratio 1.93; CI: 1.42–2.63) to be rated at low academic performance than students that had no unexplained absence.

**Implementation of Professional Development programmes.** Students who attended schools that had not implemented a Professional Development programme were around 1.75 times less likely (Odds Ratio 0.57; CI: 0.37–0.86) to have low academic performance, relative to students attending schools that had implemented one or more Professional Development programmes.

**Student suspended from school.** Students who had been suspended from school on two occasions or more were almost three times more likely (Odds Ratio 2.80; CI: 1.16–6.80) to have low academic performance compared with students who had not been suspended. Although, less than one in twenty Aboriginal students had experienced two or more suspensions (3.4 per cent; CI: 2.6%–4.3%).

**Student ever repeated a grade.** Students who had repeated a grade at their current school were over three times more likely (Odds Ratio 3.50; CI: 1.75–6.99) to be rated at low academic performance than students who had not repeated a grade.

**Removal of student from formal instruction due to misbehaviour.** Students who were frequently removed from class due to their behaviour were almost three times more likely (Odds Ratio 2.87; CI: 1.27–6.52) to have low academic performance than students who had not been removed.



**FIGURE 6.19:** STUDENTS AGED 4–17 YEARS — LIKELIHOOD OF BEING AT LOW ACADEMIC PERFORMANCE, ASSOCIATED WITH SCHOOL ENVIRONMENT FACTORS

<i>Parameter</i>	<i>Odds Ratio</i>	<i>95% CI</i>
<b>Sex</b>		
Males	1.81	(1.45 - 2.28)
Females	1.00	
<b>Age group</b>		
4–7 years	1.00	
8–11 years	1.33	(1.02 - 1.74)
12–14 years	1.13	(0.80 - 1.59)
15–17 years	0.58	(0.37 - 0.91)
<b>Level of Relative Isolation</b>		
None	1.00	
Low	0.79	(0.58 - 1.07)
Moderate	0.89	(0.60 - 1.33)
High	1.38	(0.79 - 2.44)
Extreme	2.09	(1.08 - 4.02)
<b>Category of school</b>		
Government school	1.00	
Catholic school	1.61	(1.08 - 2.39)
Independent school	3.22	(1.74 - 5.95)
Aboriginal community governed school	1.24	(0.51 - 3.01)
<b>Student to teacher ratio</b>		
Less than 10	1.00	
10–15	0.47	(0.31 - 0.71)
15–20	0.56	(0.35 - 0.88)
20 or more	0.41	(0.25 - 0.67)
<b>Days absent from school</b>		
More than 105 days	3.06	(1.70 - 5.51)
63–104 days	3.11	(1.88 - 5.15)
42–62 days	1.84	(1.19 - 2.86)
21–41 days	1.30	(0.92 - 1.84)
11–20 days	1.18	(0.84 - 1.65)
0–10 days	1.00	
<b>Number of days of unexplained absence</b>		
None	1.00	
1–10	1.88	(1.37 - 2.58)
More than 10	1.93	(1.42 - 2.63)
<b>Have one or more Professional Development programmes been implemented at the school</b>		
No	0.57	(0.37 - 0.86)
Yes	1.00	
<b>Number of times suspended from school this year</b>		
Not suspended	1.00	
Suspended once	0.93	(0.50 - 1.74)
Suspended twice or more	2.80	(1.16 - 6.80)
<b>Student ever repeated a grade</b>		
No	1.00	
Yes	3.50	(1.75 - 6.99)
<b>Student removed from class due to misbehaviour this year</b>		
Never	1.00	
Rarely	1.50	(1.06 - 2.13)
Sometimes	1.66	(1.08 - 2.55)
Frequently	2.87	(1.27 - 6.52)



## RELATIVE IMPORTANCE OF STUDENT, CARER, FAMILY AND HOUSEHOLD AND SCHOOL ENVIRONMENT FACTORS IN EXPLAINING LOW ACADEMIC PERFORMANCE

Throughout this chapter, the factors associated with low academic performance have been analysed within a multivariate logistic modelling framework. Separate modelling was undertaken for student factors; carer factors; family and household factors; and school environment factors. Analysing each group of factors using the modelling approach allows for a more accurate reflection of the relative importance of each factor on the likelihood of low academic performance because each model adjusts for the independent effects of the other variables in the model.

A final global model that incorporates factors from across the student, carer, family and household, and school environment domains has also been developed. All of the factors that were found to be significantly associated with the likelihood of low academic performance in the separate student, carer, family and household, and school environment level models were tested for inclusion in the global model. In the final model, not all of the variables previously examined were found to have a significant effect on Aboriginal students' low academic performance.

Factors eliminated from the final model included:

- ◆ **Student factors.** Substance use during pregnancy; and whether the child had seen a doctor in the past six months
- ◆ **Carer factors.** Primary carer's physical health; primary carer contact with Mental Health Services in Western Australia; and primary carer forced separation from their natural family by a mission, the government or welfare
- ◆ **Family and household factors.** Family care arrangement; quality of parenting; how often someone from the household looks at a book with the student; household occupancy level; and home ownership
- ◆ **School environment factors.** Implementation of professional development programmes; and removal of the student from formal instruction.

Although these factors were not retained in the final model, this does not mean that these factors are not associated with low academic performance. For instance, results in *Chapter 4 – Attendance at school* showed that school attendance was strongly associated with how often someone from the household looked at a book with the student. When both of these variables were included in the final model, school attendance was found to be the most significant predictor of low academic performance. However, how often someone from the household looks at a book with the student is a contributing factor to Aboriginal students' school attendance which, in turn, impacts on academic performance.

Independently of a student's sex, age, LORI and school type, 16 factors were identified as significant predictors of low academic performance. They were:

- ◆ **Student factors.** Speech difficulties; functional limitations; risk of clinically significant emotional or behavioural difficulties; main language spoken in the classroom; where the student does homework; and whether the carer has seen the class teacher about a problem the student was having at school.
- ◆ **Carer factors.** Primary carer education, labour force status and attendance at an Aboriginal funeral in the last 12 months.





- ◆ **Family and household factors.** Number of homes lived in; and whether gambling causes problems in the household.
- ◆ **School environment factors.** Student to teacher ratio; days absent from school; unexplained absence from school; school suspension, and repeating a year at school.

Data modelling found that in terms of **student factors**:

- ◆ Males were around 1.8 times more likely (Odds Ratio 1.75; CI: 1.38–2.22) as females to have low academic performance.
- ◆ Students aged 12–14 years were around one and a half times more likely (Odds Ratio 1.47; CI: 1.01–2.12) to have low academic performance than 4–7 year-olds.
- ◆ Students attending Independent schools were almost four times more likely (Odds Ratio 3.90; CI: 1.97–7.71) to have low academic performance than students attending Government schools. As noted in Chapter 5, there are differences between Government, Catholic and Independent schools in terms of their location (e.g. relative isolation) and the student populations they serve that may also be driving this result.
- ◆ Students who had trouble saying certain sounds were 1.5 times more likely (Odds Ratio 1.57; CI: 1.07–2.30) to have low academic performance.
- ◆ A student with functional limitations was nearly seven times more likely (Odds Ratio 6.93; CI: 2.20–22.00) to have low academic performance relative to students who did not suffer such limitations.
- ◆ Students at high risk of clinically significant emotional or behavioural difficulties were almost three times more likely (Odds Ratio 2.75; CI: 1.89–4.00) to have low academic performance compared with students at low risk.
- ◆ Students who spoke Aboriginal English in the classroom were over two times more likely (Odds Ratio 2.42; CI: 1.55–3.79) to be rated at low academic performance than students who spoke English in the classroom.
- ◆ Students who usually did their homework or study in homework classes were around two times more likely (Odds Ratio 2.15; CI: 1.49–3.10) to have low academic performance relative to students who usually studied at home.
- ◆ Students whose carers had seen the class teacher in the last six months about a problem the student was having at school were around one and a half times more likely (Odds Ratio 1.47; CI: 1.10–1.95) to be rated at low academic performance compared with students whose carers had not seen the class teacher about a problem.

Data modelling found that in terms of **carer factors**:

- ◆ Students in the primary care of a person who completed 13 or more years of education were over two times less likely (Odds Ratio 0.46; CI: 0.27–0.78) to have low academic performance than students whose primary carer had between 1–9 years of education.



- ◆ The students of primary carers who were not in the labour force were 35 per cent more likely (Odds Ratio 1.35; CI: 1.03–1.76) to have low academic performance relative to students whose primary carer was employed.
- ◆ Students whose primary carer had not attended an Aboriginal funeral in the last 12 months were around 1.4 times less likely (Odds Ratio 0.72; CI: 0.55–0.94) to be rated at low academic performance relative to students whose primary carer had attended an Aboriginal funeral.

Data modelling found that in terms of **family and household factors**:

- ◆ Students who had lived in five or more homes since birth were around 1.4 times less likely (Odds Ratio 0.73; CI: 0.56–0.95) to be rated at low academic performance compared with students that had lived in four or less homes.
- ◆ Students living in households where gambling was a cause of problems were over twice as likely (Odds Ratio 2.12; CI: 1.11–4.03) to have low academic performance relative to students living in households where gambling did not cause problems.

Data modelling found that in terms of **school environment factors**:

- ◆ Students attending schools where the student to teacher ratio was more than 20 were 1.8 times less likely (Odds Ratio 0.56; CI: 0.33–0.96) to have low academic performance compared with students attending schools where this ratio was 10 or less.
- ◆ Students absent from school for 105 days or more were over two times more likely (Odds Ratio 2.16; CI: 1.16–4.04) to have low academic performance relative to students who were absent for 10 days or less.
- ◆ Students who had more than 10 days of unexplained absence were almost twice as likely (Odds ratio 1.80; CI: 1.29–2.51) to have low academic performance than students who did not have any unexplained absence.
- ◆ Students suspended from school at least twice were over three times more likely (Odds Ratio 3.45; CI: 1.42–8.36) to have low academic performance than students who had never been suspended.
- ◆ Students who had repeated a grade were over three times more likely (Odds Ratio 3.57; CI: 1.71–7.46) to have low academic performance than students who had not repeated a grade.



**FIGURE 6.20:** STUDENTS AGED 4–17 YEARS — LIKELIHOOD OF BEING AT LOW ACADEMIC PERFORMANCE, ASSOCIATED WITH STUDENT, CARER, FAMILY AND HOUSEHOLD, AND SCHOOL ENVIRONMENT FACTORS

Parameter	Odds Ratio	95% CI
Sex		
Males	1.75	(1.38 - 2.22)
Females	1.00	
Age group		
4–7 years	1.00	
8–11 years	1.36	(1.02 - 1.83)
12–14 years	1.47	(1.01 - 2.12)
15–17 years	0.71	(0.43 - 1.16)
Level of Relative Isolation		
None	1.00	
Low	0.84	(0.62 - 1.15)
Moderate	0.92	(0.61 - 1.40)
High	1.15	(0.62 - 2.12)
Extreme	1.81	(0.85 - 3.85)
Category of school		
Government	1.00	
Catholic	1.47	(0.97 - 2.22)
Independent	3.90	(1.97 - 7.71)
Aboriginal community governed	1.12	(0.47 - 2.68)
Whether child has difficulty saying certain sounds		
No	1.00	
Yes	1.57	(1.07 - 2.30)
Whether child needs help with basic activities of daily living		
No	1.00	
Yes	6.93	(2.20 - 22.00)
Teacher assessed risk of clinically significant emotional or behavioural difficulties		
Low	1.00	
Moderate	3.49	(2.42 - 5.04)
High	2.75	(1.89 - 4.00)
Main language spoken in the classroom		
English	1.00	
Aboriginal English	2.42	(1.55 - 3.79)
Kriol/Creole	2.92	(0.70 - 11.80)
Aboriginal language	1.31	(0.42 - 4.09)
Other	0.40	(0.06 - 2.54)
Where child usually does homework		
Doesn't do homework	0.76	(0.30 - 1.89)
Home	1.00	
At school (unsupervised)	0.98	(0.44 - 2.18)
Homework classes	2.15	(1.49 - 3.10)
Somewhere else	0.57	(0.18 - 1.77)
Not stated	0.87	(0.60 - 1.24)
Primary carer or partner needed to see the class teacher in the last 6 months?		
No	1.00	
Yes	1.47	(1.10 - 1.95)
Not stated	0.41	(0.10 - 1.69)

Continued....



**FIGURE 6.20 (continued):** STUDENTS AGED 4–17 YEARS — LIKELIHOOD OF BEING AT LOW ACADEMIC PERFORMANCE, ASSOCIATED WITH STUDENT, CARER, FAMILY AND HOUSEHOLD, AND SCHOOL ENVIRONMENT FACTORS

<i>Parameter</i>	<i>Odds Ratio</i>	<i>95% CI</i>
<b>Primary carer level of educational</b>		
Did not attend school	2.08	(0.81 - 5.33)
1–9 years education	1.47	(1.06 - 2.03)
10 years education	1.00	
11–12 years education	1.14	(0.85 - 1.53)
13 or more years education	0.46	(0.27 - 0.78)
Not stated	1.00	(0.76 - 1.32)
<b>Primary carer labour force status</b>		
Unemployed	1.07	(0.71 - 1.60)
Employed	1.00	
Not in labour force	1.35	(1.03 - 1.76)
Not stated	1.00	(0.76 - 1.32)
<b>Primary carer attended an Aboriginal funeral in the last 12 months?</b>		
No	0.72	(0.55 - 0.94)
Yes	1.00	
Not stated	1.00	(0.76 - 1.32)
<b>Number of homes lived in since birth</b>		
1–4 homes	1.00	
5 or more homes	0.73	(0.56 - 0.95)
<b>Gambling causes problems in the household?</b>		
No	1.00	
Yes	2.12	(1.11 - 4.03)
Not stated	1.00	(0.76 - 1.32)
<b>Student to teacher ratio</b>		
Less than 10	1.00	
10–15	0.60	(0.38 - 0.93)
15–20	0.82	(0.50 - 1.34)
20 or more	0.56	(0.33 - 0.96)
<b>Days absent from school</b>		
More than 105 days	2.16	(1.16 - 4.04)
63–104 days	2.19	(1.29 - 3.72)
42–62 days	1.46	(0.91 - 2.33)
21–41 days	1.06	(0.74 - 1.53)
11–20 days	0.96	(0.67 - 1.37)
0–10 days	1.00	
<b>Number of days of unexplained absence</b>		
None	1.00	
1–10	1.86	(1.33 - 2.59)
More than 10	1.80	(1.29 - 2.51)
<b>Number of times suspended from school this year</b>		
Not suspended	1.00	
Suspended once	0.83	(0.44 - 1.56)
Suspended twice or more	3.45	(1.42 - 8.36)
<b>Student ever repeated a grade</b>		
No	1.00	
Yes	3.57	(1.71 - 7.46)



## FACTORS THAT INFLUENCE THE ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS

Findings in this chapter suggest that there are several issues that need to be addressed to improve educational outcomes for Aboriginal children. Statistical modelling indicates that there are three major factors associated with low academic performance of Aboriginal students — poor school attendance; low levels of carer education; and clinically significant emotional or behavioural difficulties in students.

### School attendance

Improving attendance at school remains a central strategy for improving the academic performance of Aboriginal students. This is a key principal in the provision of effective education.<sup>5</sup> Factors associated with poor attendance of Aboriginal students have been discussed in some detail in Chapter 4 along with suggested courses of action that flow from the survey findings. For example, schools should be required to report annual attendance ratios of Aboriginal students and to set performance requirements and implement strategies for improving these.

Addressing these issues will require long term commitment and resources to confront system, community and family resistances that impose current barriers to improving attendance. It also requires overcoming the belief both within and outside the education sector that poor attendance is inevitable and entrenched. Without a dialogue between schools, communities and families in which expectations and responsibilities are identified and agreed upon, failure to improve attendance of Aboriginal children at school will persist. It is the government's responsibility, and the education sector's specifically, to lead and pursue this dialogue.

### Carer education

Increasing the educational attainment of the carers of Aboriginal children is clearly associated with improving the likelihood of Aboriginal students doing well at school. Given the poor retention rates of Aboriginal children into upper school years, careful consideration of expanding school re-entry opportunities and the Vocational Education and Training (VET) sector opportunities for Aboriginal carers and young people should be considered. The curriculum opportunities for these young adults could also be structured to include parenting and life skills education that could enhance life prospects for Aboriginal carers and their children. This would entail strategic planning and commitment at the highest levels of the education system, but would reap measurable benefits more rapidly by augmenting current methods that focus and rely heavily on school retention in Years 11 and 12.

### Emotional or behavioural difficulties

The findings from this chapter suggest that the academic performance of Aboriginal students is substantially poorer in the presence of clinically significant emotional or behavioural difficulties. As noted earlier in this chapter,

*Continued . . . .*



## FACTORS THAT INFLUENCE THE ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS

(continued)

around one in six Aboriginal students (16.8 per cent; CI: 14.8%–19.0%) were assessed by their teachers to be at high risk of clinically significant emotional or behavioural difficulties, while a further 14.0 per cent (CI: 12.2%–16.0%) were assessed as being at moderate risk. Emotional and behavioural difficulties are identifiable and treatable. Volume Two of the WAACHS contained an extensive analysis and discussion of the factors associated with emotional and behavioural difficulties in Aboriginal children aged 4–17 years and steps that can be taken to reduce their incidence. The development and delivery of active treatment and support for Aboriginal children with emotional and behavioural difficulties is an essential component for improving the academic performance of Aboriginal students.

Educational services for Aboriginal students with emotional and behavioural difficulties are not widely available outside of the education system and, given the vicissitudes that families with Aboriginal children face, their uptake in settings outside of school is questionable. Zubrick *et al*<sup>11</sup> reviewed the scope and characteristics of mental health disorders in children and young people in Australia. They concluded that preventive intervention and promotion in mental health must entail effective collaboration at national, state and local levels between health, welfare and education sectors. The risk factors for Aboriginal children, which exist across all three settings, strengthen the argument for such collaboration to improve Aboriginal children's emotional and behavioural outcomes. Therefore, support to schools to allow effective collaboration is vital.

### Other factors

Results in this chapter also show that other student-related factors influence the academic performance of Aboriginal students. School performances are poorer when the student has poor English language competency, in the presence of a speech difficulty, and/or the presence of a functional limitation (e.g. a severe disability). These are important observations because these factors may be prevented, identified and treated. While there is no doubt that a significant proportion of these difficulties is related to the wider environment in which Aboriginal children are born and raised, the reality is that, when present in children who are at school, these factors are critical for the education system to identify and they require active programmes of management and school support services. In addressing these, education authorities should give consideration to:

- ◆ **Speech and language enrichment programmes.** Earlier findings from the WAACHS documented the prevalence of middle ear disease in Aboriginal children.<sup>10</sup> Continued prevention and treatment of middle ear disease is essential. However, current findings also show that speech and language problems make a significant contribution to poor school performance. Early language enrichment, and specifically explicit language teaching of Standard Australian English features, is an important pathway for improving educational performance.

*Continued . . . .*



## FACTORS THAT INFLUENCE THE ACADEMIC PERFORMANCE OF ABORIGINAL STUDENTS

(continued)

In stating this, it is important to make clear that this in no way serves as justification for discontinuing the teaching of, and support to, Aboriginal languages in schools — quite to the contrary. There does, however, need to be a concerted recognition that if English is the principal language of education, then specific language enrichment programmes for Aboriginal children are essential.

- ◆ Identification and school support of those Aboriginal children with significant impairments in functional status leading to or resulting in disability.

The WAACHS findings also support many of the key principles of effective education provision.<sup>5</sup> Managing educational transition is a key principle and the WAACHS data (see *Chapter 5*) specifically informs the extent to which young children are ready for primary school.<sup>12,13</sup> The data show that about 29 per cent of four year-old Aboriginal children have clinically significant emotional or behavioural problems.<sup>10</sup> This entails a preponderance of conduct and peer problems. How are pre-school and early primary school settings equipped to address this demand and assist these children in making a successful transition to school and learning?

### Summary

There are both long term and short term strategies of particular value in improving the school performances of Aboriginal children. Some of these strategies, such as the engagement of the VET sector and the shaping of curriculum to support and improve the life skills and parenting practices of Aboriginal carers while concurrently providing training and development that leads to onward employment prospects, are discussed in Chapter 9. These are long term strategies. More immediately though, there is a requirement for community engagement, educational support and curriculum changes that would better address the immediate educational abilities and needs of Aboriginal children. These changes should target the improving of school attendance, identify and manage problems in social and emotional behaviour, and implement language enrichment opportunities over the early and primary school years.

## ENDNOTES

1. Novello AC, Degraw C, Kleinman D. Healthy children ready to learn: An essential collaboration between health and education. *Public Health Reports* 1992;107:3-15.
2. Ministerial Council on Education, Employment, Training and Youth Affairs Taskforce on Indigenous Education. *Solid foundations: Health and education partnership for Indigenous children aged 0 to 8 years*. Carlton: Ministerial Council on Education, Employment, Training and Youth Affairs; 2001.
3. McCain MN, Mustard JF. *The early years study: Reversing the real brain drain*. Toronto, Ontario: Children's Secretariat; 1999.
4. Blair E. Why do Aboriginal neonates weigh less? II. Determinants of birthweight for gestation. *Journal of Paediatrics and Child Health* 1996;32: 498-503.



5. Mellor S, Corrigan M. *The case for change: A review of contemporary research on Indigenous education outcomes*. Camberwell: ACER Press; 2004.
6. Zubrick SR, Lawrence DM, Silburn SR, Blair E, Milroy H, Wilkes E, Eades S, D'Antoine H, Read A, Ishiguchi P, Doyle S. *The Western Australian Aboriginal Child Health Survey: The health of Aboriginal children and young people*. Perth: Telethon Institute for Child Health Research; 2004.
7. Australian Bureau of Statistics. *Census of population and housing, 2001*. Customised Table. Canberra: Australian Bureau of Statistics. 2005.
8. Statistics New Zealand. *Census of population and dwellings, 2001*. Customised Table. Wellington: Statistics New Zealand, 2005.
9. MacMillan H, Walsh C, Jamieson E, Crawford A, Boyle M. *Children's health: First Nations and Inuit regional health survey*. [Online] Centre for Studies of Children at Risk, McMaster University: Hamilton, Ontario. 1999 [cited 2004 Sep 21]; Available from: URL: [http://www.hc-sc.gc.ca/fnihb-dgspni/fnihb/aboriginalhealth/reports\\_summaries/regional\\_survey.htm](http://www.hc-sc.gc.ca/fnihb-dgspni/fnihb/aboriginalhealth/reports_summaries/regional_survey.htm)
10. Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, De Maio JA, Cox A, Li J. *The Western Australian Aboriginal Child Health Survey: The social and emotional wellbeing of Aboriginal children and young people*. Perth: Curtin University of Technology and Telethon Institute for Child Health Research; 2005.
11. Zubrick SR, Silburn SR, Blair E. Mental health disorders in children and young people: scope, cause and prevention. *Australian and New Zealand Journal of Psychiatry* 2000; 34: 570–8.
12. Dockett S, Perry B. Whose ready for what? Young children starting school. *Contemporary issues in early childhood* 2000;3:67–89.
13. Doherty G. *Zero to six: The basis for school readiness*. Ontario: Research Paper R-97-8E, Applied Research Branch, Strategic Policy, Human Resources Development Canada; 1997.





## Chapter 7

# CARER AND TEACHER ASSESSMENTS OF STUDENT ACADEMIC PERFORMANCE

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## Chapter 7

### CARER AND TEACHER ASSESSMENTS OF STUDENT ACADEMIC PERFORMANCE

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*In the community consultations that preceded the survey, most carers of Aboriginal children expressed the view that a good education was critically important for their child. This chapter details aspects of carer involvement with the school including carer perceptions of their interactions with the school, how welcome they feel in approaching the school, how confident they are in sorting out problems, and their views of how happy they are with the performance of the school. This sets the scene for comparisons between primary carer and teacher perceptions of the academic performance of the children. With schools and education authorities expecting or inviting carer interest and involvement in their child's education, the findings in this chapter explore the extent to which the carers of Aboriginal children and their teachers agree on academic performance, and detail some of the factors related to observed discrepancies in this agreement, and their implications for improving educational outcomes for Aboriginal children.*

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#### SUMMARY

Research shows that parent involvement in their children's education has substantial benefits for parents, students, teachers and the school. Within this context, the WAACHS findings reveal a disturbingly high degree of primary carer alienation from all aspects of their children's schooling. Predisposing factors that have contributed to a situation where carers find schools alienating and far removed from the experiences of their everyday lives include:

- ◆ education systems that do not adequately recognise or acknowledge Aboriginal culture and language
- ◆ unacceptably high levels of students leaving school prior to completing the final compulsory schooling year (Year 10)
- ◆ discrimination in employment and lack of job opportunities as a disincentive to participate in education
- ◆ carers who were forcibly separated being offered little meaningful learning and few employment opportunities beyond domestic or manual labour.

These circumstances have contributed to limited education for a majority of carers and reduced access to employment and income, both of which are significant factors in helping to improve the circumstances relevant to their children's development.

From a school perspective, principals have identified significant gaps in the adequacy of their school's Aboriginal learning programmes and their interactions with Aboriginal parents compared with their learning programmes for all students and interactions with all parents.

Within this context, the primary carers of 49.3 per cent of Aboriginal students aged 4–17 years differed with teachers regarding the academic performance of their child, rating the child as doing OK at school work while teachers rated the child as having low academic performance. For all Western Australian students, the level of discrepancy was significantly lower (15.6 per cent). This suggests that carers



## SUMMARY (continued)

of all Western Australian students are more in tune with the academic performance of their children than carers of Aboriginal students.

A number of student, primary carer, family and school factors were found to be associated with primary carers and teachers differing in their rating of the student's school work performance. Primary carer factors were of particular significance.

### Primary carer factors

Factors related to stocks of social capital showed the strongest association with differing primary carer and teacher ratings of the student's school work performance. They are a disturbing indication of the adverse consequences of introducing education systems that do not adequately recognise the unique nature of Aboriginal history, culture and language:

- ◆ *Speaking an Aboriginal language.* Students of primary carers who were conversant in an Aboriginal language were almost twice as likely to have their academic performance rated differently than students whose carers did not speak an Aboriginal language.
- ◆ *Whether the carer was forcibly separated from their natural family.* Students of primary carers who were forcibly separated from their natural family by a mission, the government or welfare were one and a half times as likely to have their academic performance rated differently than students whose carers had not been forcibly separated.
- ◆ *Importance of religion/spiritual beliefs.* Students whose primary carers reported that religion/spiritual beliefs were 'very much' important in their lives were one and a half times as likely to have their academic performance rated differently compared with students whose carers reported that religion/spiritual beliefs were 'not at all' important.

In comparison, the benefits of a good education and gainful employment (factors of human capital) were shown to be significantly associated with lower levels of carer and teacher differences (i.e. carers being more in tune with their child's education):

- ◆ *Primary carer labour force status.* Students whose primary carers were employed were one and a third times less likely to have their academic performance rated differently than students whose carers were not in the labour force.
- ◆ *Primary carer level of education.* The students of those primary carers who had attained post-school qualifications (i.e. completed 13 or more years of schooling) were almost two times less likely to be rated differently compared with students whose primary carers had left school after Year 10.

### Student, family and school factors

- ◆ *Sex.* Where the student was male, primary carers were one and a half times as likely to differ from teachers in rating their school work performance than they were rating female students.
- ◆ *Age.* Where the student was aged 15–17 years, primary carers were almost two times less likely to differ from teachers than where the student was aged 4–7 years.



**SUMMARY** *(continued)*

- ◆ *Whether primary carers and teachers assessed the student as being at high risk of clinically significant emotional or behavioural difficulties.* Students who were assessed by their teacher but not by their carer as being at high risk of clinically significant emotional or behavioural difficulties were over one and a half times as likely to have their school work performance rated differently than students assessed by both the primary carer and teacher as being at high risk.
- ◆ *Household occupancy level.* Students of primary carers living in homes with a high level of household occupancy were one and a third times as likely to have their academic performance rated differently compared with students of carers from homes with a low level of household occupancy.
- ◆ *Category of school.* The primary carers of Aboriginal students who attended Catholic/Independent schools were almost twice as likely to differ from teachers than primary carers of students attending Government schools.
- ◆ *Unexplained absence.* Primary carers of students who had 1–10 unexplained absences were one and a half times as likely to differ from teachers compared with carers of students who had no unexplained absence; while carers of students who had 11 or more unexplained absences were twice as likely to differ.



## INTRODUCTION

Interactions between parents and their children, parents and the child's school, and children and their school all have a substantial bearing on educational outcomes for a child. Parental involvement in their children's education has substantial benefits for parents, students, teachers and the school.<sup>1</sup> With greater parent involvement, absenteeism has been shown to reduce, more positive behaviours and attitudes develop, and students perform better at their school work and are more likely to continue on to higher education. Interaction between parents and teachers encourages mutual support and more informed and shared expectations for the child's educational outcomes.

The proportion of 4–17 year-old Aboriginal students rated by their teacher as having low academic performance is unacceptably high at nearly six in ten students (57.5 per cent; CI: 54.7%–60.3%). This would suggest that there is considerable scope for the carers of Aboriginal children, for schools and for communities to play an important role in improving education outcomes for Aboriginal students. It also begs the question 'how do the students and their carers perceive they are performing with their school work?'

The emphasis in this chapter is on examining: how well primary carers of Aboriginal students interact with the school; how they perceive their children to be performing at school work; and the capacity for primary carers to help improve the school performance of their children. The WAACHS did not capture information that enabled the level of carer's involvement in the education of Aboriginal students to be comprehensively measured. Nevertheless, information is available which indicates the primary carer's relationship with the school and how school principals assess the adequacy of aspects of Aboriginal education and parental involvement within their schools. Within this context, the primary carer's assessment of how their child was doing with their school work is compared with the school teacher's rating of the overall academic performance of the child. Where there are differences in the respective ratings, factors associated with these differences are identified that may help to inform strategies to enhance the effective involvement of carers in improving future education outcomes of Aboriginal students.

Students aged 12–17 years were also asked to provide a self-assessment of how they considered they were doing at school work. In Chapter 8, this self-assessment is examined and compared with the teachers rating of their academic performance.

### CARER INVOLVEMENT WITH SCHOOLS – SOME ASSUMPTIONS

Modern educational practices assume that carers are generally interested and engaged in their children's education. Schools increasingly seek to engage carer interest and involvement through a range of direct invitations as well as school-community consultations and governance opportunities. Community attitudes and values are often expressed about proposed or implemented changes to the school programme or curricula and there is a general expectation that carers are entitled to some level of involvement in the life of the school. As a result, school systems increasingly expect a higher involvement of carers in supporting the curriculum, in promoting the cognitive development of their children, in monitoring their children's educational development, and in volunteering for school and classroom activities.<sup>2</sup> Moreover, research generally shows that carer involvement in school activities is associated with improved achievement — particularly for economically disadvantaged children.<sup>3,4</sup>

*Continued . . .*



**CARER INVOLVEMENT WITH SCHOOLS – SOME ASSUMPTIONS** (*continued*)

While schools may have expectations of what carers can and should do with respect to their children's education, some carers will regard themselves to be in partnership with the school and others will depend on the school to educate their children. Similarly, depending on the policies of the day and the leadership ethos of the school, some schools will expect and encourage greater carer involvement while others will have lower expectations and concomitantly lower levels of encouragement of parental involvement. In other words, parental involvement in school, and the expectation of it, is socially constructed.

Importantly, the skills that schools expect parents to have with respect to school involvement are not evenly distributed within the population. For example, Connell *et al* made an early observation that working class parents were 'frozen out of (Australian) schools'.<sup>5</sup> While it might be argued that vigorous steps have been taken in recent times to involve all parents in school, Lareau and Shumar have noted that such initiatives fail to confront the 'observable differences in parents' and guardians' educational skills, occupational and economic flexibility, social networks and positions of power that they bring to home-school encounters'.<sup>6</sup> Moreover, not all parental involvement is welcome. Schools value parental involvement that is favourable — in other words, educators more often than not expect parental displays that are positive and supportive to education broadly, and that trust the teacher's judgments and assessments.<sup>7</sup> Criticism, suspicion, objection, and assertive enquiry are actions that some parents take to be involved in the schooling of their child. These actions carry the perceived or real possibility of negative consequences for them and their child.

In reality, the basis of parental involvement at school is a function of:

- ◆ how a parent constructs their role about what they are supposed to do in respect of their children's education
- ◆ their sense of efficacy or empowerment — that is, the extent to which they believe that through their involvement they can influence their children's educational outcomes
- ◆ the invitations, demands and opportunities that are provided to them by both the child and school.<sup>8</sup>

When these factors are systematically addressed, they have been shown to produce positive outcomes in Aboriginal student attendance, performance and behaviour with significant changes in parental, family and community engagement.<sup>9,10</sup>



## PRIMARY CARER INTERACTIONS WITH THE SCHOOL

The primary carers of Aboriginal students were asked about their relationship with the child's school and how happy they were with the job the school was doing in educating their child. While not prescriptive of how involved carers are with the school to help improve the child's education, carers did report very high levels of satisfaction with their ability to interact with the school and with the job the school was doing. This was the case across all levels of relative isolation.

## FEELING WELCOME AT THE SCHOOL

The primary carers of 94.8 per cent (CI: 93.4%–96.0%) of students reported that they felt welcome when going to their child's school (Table 7.1).

### THE MANUKAU FAMILY LITERACY PROGRAMME (2004)

The Manukau Family Literacy Programme (MFLP)<sup>11</sup> is a New Zealand intervention targeting Pasifika and Māori families which has shown promising early results for both parents and children. The programme involves a partnership between early childhood centres, primary schools and the Auckland University of Technology (AUT). The greater majority of adults enrolled in the programme have previously had minimal success in the schooling system. However, in the course of their experience of the MFLP programme, most of the adult participants have proceeded to successfully complete tertiary courses, some with notable pass levels. While most children were observed to make significant gains in their reading and writing, these improvements were somewhat uneven in comparison with those observed for the adults.

The programme has four components (adult literacy, child literacy, parent and child together time (PACTT) and parent education). Adult participants take part in a full-time tertiary programme on a school site; they work with one of their children in literacy-related activities during daily PACTT; the parent education component allows them to observe and study child development and behaviour as part of their adult education course; and parent, child and wider *whanau* (extended family) also take part in regular literacy-related events. The practical integration of all of these elements is seen as a critical part of the programme's success. Another key feature is its emphasis on parenting as a cornerstone of family literacy and the importance of parental expectations and support in enhancing the achievement of children.

Other gains reported include improved recruitment and retention of adult learners, improved self-rating of self-confidence and self-efficacy and increased parental involvement in their children's education. The bringing of parents into schools and early childhood centres on a sustained basis has had community benefits in helping to demystify education. Finally, the programme would appear to have had effects beyond the learners themselves in contributing to a more integrated community of education providers and a positive example of lifelong learning in action.





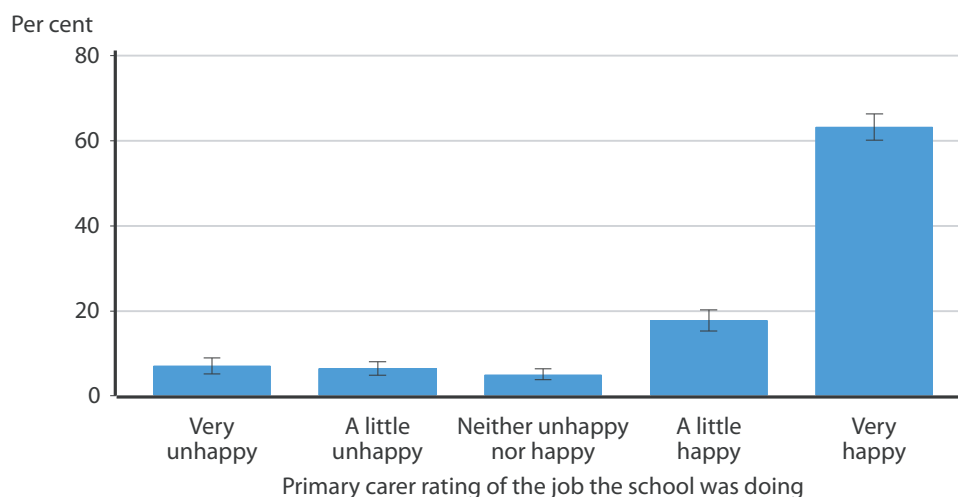
## SORTING OUT PROBLEMS AT THE SCHOOL

The feeling of being welcome at the school translated into an expressed ability of carers to deal with any school-related problems. If there was a problem at the child's school, the primary carers of 95.0 per cent (CI: 93.8%–96.0%) of students reported that they could sort out the problem with the school (Table 7.2).

## RATING HOW WELL THE SCHOOL WAS DOING

Overall, the primary carers of around four in five Aboriginal students were happy with the job the school was doing. The carers of 17.7 per cent of students (CI: 15.3%–20.2%) were 'a little bit happy' with the way the school was undertaking their child's education while the carers of 63.2 per cent (CI: 60.2%–66.3%) of students were 'very happy' (Figure 7.1). The primary carers of two-thirds (67.1 per cent; CI: 63.6%–70.6%) of 4–11 year-old students were very happy compared with 56.0 per cent (CI: 50.9%–60.9%) for 12–17 year-old students (Table 7.3).

**FIGURE 7.1:** STUDENTS AGED 4–17 YEARS — WHETHER THE PRIMARY CARER WAS HAPPY WITH THE JOB THE SCHOOL WAS DOING

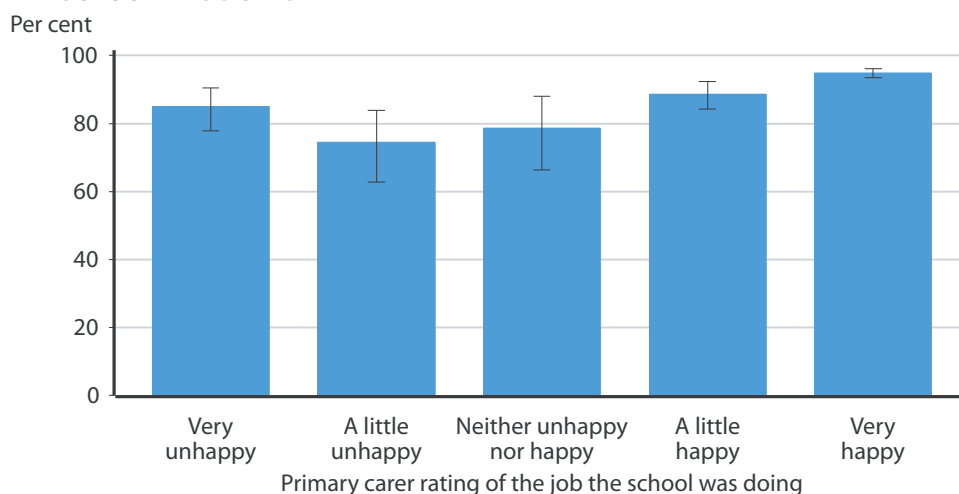


Source: Table 7.3

With primary carers indicating such high levels of satisfaction with the job the school was doing, it is reasonable to expect that the degree of satisfaction should mirror the carer's assessment of how the child was doing with their school work. However, of the 1,360 (CI: 1,010–1,750) students whose primary carers were 'very unhappy' with the job the school was doing, 85.0 per cent (CI: 77.8%–90.4%) were nevertheless rated by their carers as doing OK with school work. There was no statistically significant gradient observable across the majority of categories of primary carer happiness with respect to their rating of the job the school was doing. Where primary carers were 'very happy' with the job the school was doing, 94.9 per cent (CI: 93.4%–96.1%) of students in their care were rated as doing OK with school work (Figure 7.2).



**FIGURE 7.2:** STUDENTS AGED 4–17 YEARS — PROPORTION RATED BY PRIMARY CARERS AS DOING OK WITH SCHOOL WORK, BY WHETHER THE CARER WAS HAPPY WITH THE JOB THE SCHOOL WAS DOING



Source: Table 7.4

The lack of association across levels of carer happiness with the job the school was doing points to some important issues, including:

- ◆ *the carer’s level of involvement with the school.* Where carers do not feel any close connection to the school or have not had any involvement with the school, they are likely to indicate they are happy with the school in the absence of any reason to indicate otherwise
- ◆ *the educational experiences of the primary carer.* Where these experiences have left carers with a lack of appreciation of the value of a good education or left them feeling ill-equipped to help with the education of their own children, they are more likely to indicate that their child is doing OK with school work in the absence of any other basis for judgement. This view is reinforced when considering the situation of carers who had attained post-school qualifications. As found in Chapter 6, Aboriginal students in the primary care of a person who had 13 or more years of education were more likely to have average or above average academic performance and, as will be shown later in this chapter, their carers were more likely to agree with the teacher about the child’s academic performance.

The lack of association may also relate to methods used by schools to report student progress back to carers and whether these methods are achieving their purpose to the desired extent.

The contradiction in primary carer responses to ‘how happy are you with the job the school is doing’ and whether their child is ‘doing OK with school work’ raises questions about the degree to which primary carers understand how well their children are doing with school work and how well the primary carer interacts with their children’s school.



## HOW WELL DO PRIMARY CARERS INTERACT WITH THE SCHOOL?

The primary carers of Aboriginal students reported very high levels of satisfaction with their ability to interact with the school and very high levels of satisfaction with the job the school was doing with their child's education. These findings were similar to results from the 1994 *National Aboriginal and Torres Strait Islander Survey* (NATSIS). For example, 89.9 per cent of Aboriginal and Torres Strait Islander persons in Western Australia with children attending primary or secondary school were happy with their children's education.<sup>12</sup>

On face value, these collective findings would indicate an environment strongly conducive to promoting an increased involvement with the school by primary carers to help raise the educational achievement of their children. Schwab suggested that the 1994 NATSIS results needed to be interpreted against a social and historical context in which Aboriginal people have generally had negative experiences of schooling and in the context of a dynamic in which Aboriginal parents are offered little choice or power.<sup>13</sup> He therefore confidently interpreted the high levels of satisfaction as representing an underlying view that 'when people appear "satisfied" with what they have got it may reflect resignation that their real preferences are never likely to be met'.<sup>13</sup> Schwab further reinforced this view in a research monograph which concluded that 'many Indigenous parents and caregivers find schools alienating and far removed from the experience of their everyday lives. They often feel little or no sense of ownership or connection with their children's schools'.<sup>14</sup> The WAACHS data would tend to support Schwab's observations, with primary carers' responses to 'how happy are you with the job the school is doing' appearing to contradict their assessment of whether children were 'doing OK with school work'.

Research would suggest that the WAACHS findings of high levels of primary carer satisfaction with their school interactions and the job the school was doing educating their children belie a general feeling of alienation and powerlessness among parents of Aboriginal students in respect of their own education experiences and their ability to interact with the education system for the betterment of their children and, indeed, of themselves. This perspective underlines the imperative to identify and implement strategies to reduce similar experiences for present and future generations of Aboriginal students.

## SCHOOL PERCEPTIONS OF THE ADEQUACY OF ABORIGINAL EDUCATION

School principals provided an assessment of how adequately their schools were meeting the challenges of educating Aboriginal students and interacting with, and supporting, the parents of Aboriginal students. They were also asked to assess the adequacy of their schools in providing learning and teaching programmes for all students attending the school and interacting with, and supporting, the parents of all students.

Responses from principals were on a seven-point scale ranging from '1 – Inadequate' to '7 – Fully adequate'. For the purpose of analysis, the scale has been collapsed into two categories::

- ◆ 'Less than adequate' — combining responses 1 to 3
- ◆ 'Adequate' — combining responses 4 to 7.



To present the findings of school principal assessments, each surveyed Aboriginal student was matched to the principal’s assessment of the school attended by the student. The adequacy of the school’s performance in meeting educational aspects for both Aboriginal students and all students is therefore expressed in the following analysis in terms of the estimated population of Aboriginal students.

Three educational aspects for Aboriginal students are examined:

- ◆ the school’s learning and teaching programmes for Aboriginal students
- ◆ the school’s support to Aboriginal parents
- ◆ Aboriginal parents’ involvement in school activities and their children’s learning.

The analysis looks specifically at the proportion of Aboriginal students attending schools where the principal has assessed the school’s performance in meeting educational aspects for both Aboriginal and all students as being ‘less than adequate’.

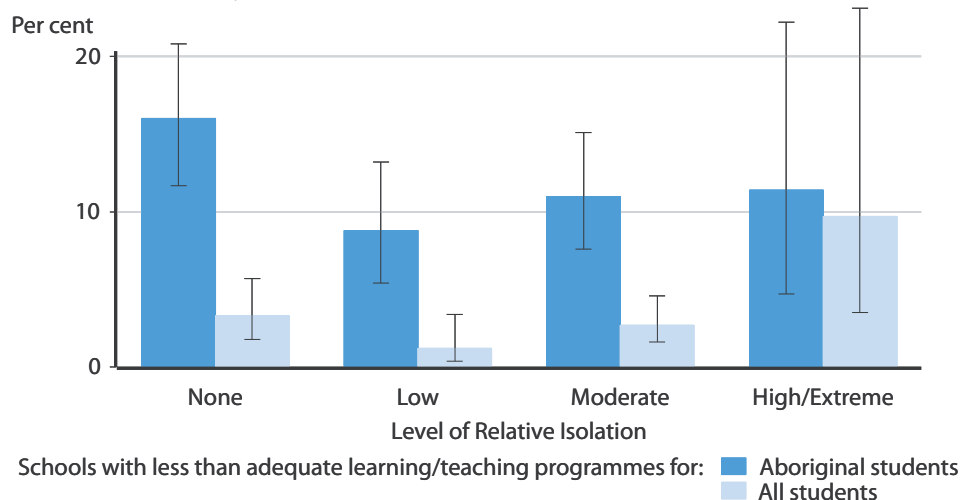
To differentiate between areas where Aboriginal students are generally in the minority (no or low relative isolation) or mostly represent the majority of the school population (high or extreme relative isolation), the data is presented by Level of Relative Isolation.

### ADEQUACY OF LEARNING AND TEACHING PROGRAMMES FOR ABORIGINAL STUDENTS

Of Aboriginal students attending schools in the Perth metropolitan area (no isolation), an estimated 16.0 per cent (CI: 11.7%–20.8%) attended schools that were rated by the principal as providing less than adequate learning and teaching programmes for Aboriginal students. In comparison, only 3.3 per cent (CI: 1.8%–5.7%) of Aboriginal students were attending Perth metropolitan schools where learning and teaching programmes for all students were rated as less than adequate (Table 7.5).

The difference in the way school principals rated the inadequacy of programmes for Aboriginal students compared with all students also existed in areas of low and moderate isolation. In areas of high and extreme isolation, where student populations are largely Aboriginal, ratings were similar at around one in ten students (Figure 7.3).

**FIGURE 7.3: STUDENTS AGED 4–17 YEARS — PROPORTION IN SCHOOLS WITH LESS THAN ADEQUATE LEARNING AND TEACHING PROGRAMMES FOR BOTH ABORIGINAL AND ALL STUDENTS, BY LEVEL OF RELATIVE ISOLATION**



Source: Table 7.5



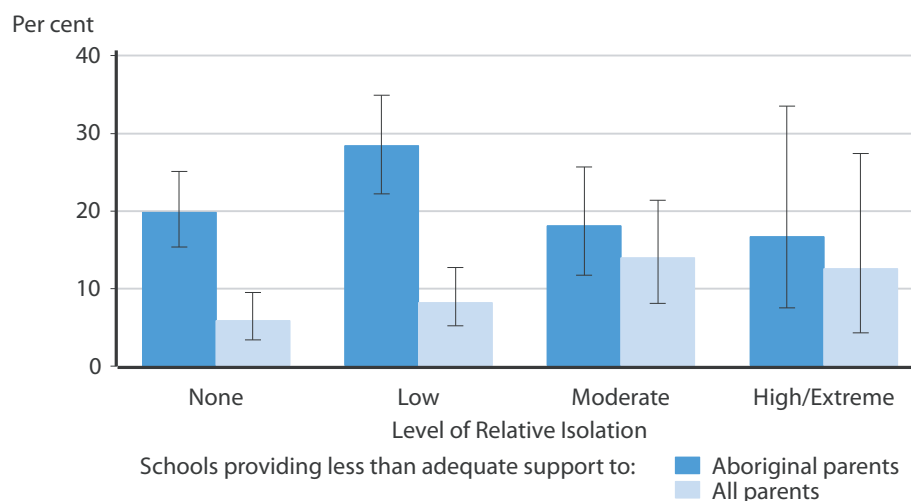
Across levels of relative isolation, the proportion of students attending schools where learning and teaching programmes for Aboriginal students were rated as less than adequate was not statistically different. An estimated 2,400 (CI: 1,960–2,890) students in Western Australia attended such schools with just under half (1,120 students; CI: 830–1,470) living in the Perth metropolitan area.

### ADEQUACY OF THE SCHOOL'S SUPPORT TO ABORIGINAL PARENTS

One requirement for creating a school environment that encourages parental involvement in all aspects of a child's education is the provision of adequate school support mechanisms for parents. The survey found significantly higher levels of less than adequate support for Aboriginal parents than for all parents. Around one in five (21.3 per cent; CI: 18.0%–24.7%) Aboriginal students attended schools which reported that support to Aboriginal parents was less than adequate. This compares with 9.4 per cent (CI: 7.1%–12.2%) of Aboriginal students who attended schools where school support to the parents of all students was rated as less than adequate. This gap was most noticeable in areas of no isolation — 19.8 per cent (CI: 15.4%–25.1%) compared with 5.9 per cent (CI: 3.4%–9.5%); and low isolation — 28.4 per cent (CI: 22.2%–34.9%) compared with 8.2 per cent (CI: 5.2%–12.7%) (Table 7.6).

Across levels of relative isolation, the proportion of Aboriginal students attending schools providing less than adequate support to Aboriginal parents was not significantly different, with the highest proportion recorded for students living in areas of low relative isolation (Figure 7.4).

**FIGURE 7.4:** STUDENTS AGED 4–17 YEARS — PROPORTION IN SCHOOLS THAT HAVE INADEQUATE SUPPORT TO BOTH ABORIGINAL AND ALL PARENTS, BY LEVEL OF RELATIVE ISOLATION



Source: Table 7.6

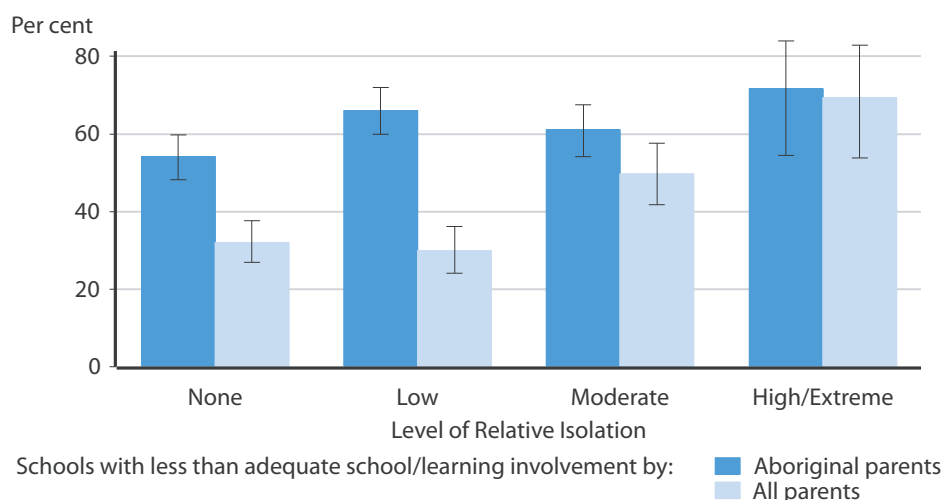


## ADEQUACY OF ABORIGINAL PARENTS' INVOLVEMENT IN SCHOOL ACTIVITIES AND THEIR CHILDREN'S LEARNING

The most direct indication from the survey of the level of involvement by Aboriginal parents in school activities and their children's learning was provided by school principals rather than the parents themselves. Around three in five (61.4 per cent; CI: 57.7%–64.9%) Aboriginal students attended schools where principals rated the involvement by Aboriginal parents in school activities and their children's learning as less than adequate. In contrast, around two in five (40.8 per cent; CI: 37.2%–44.6%) Aboriginal students attended schools that rated the involvement by parents of all students as less than adequate. This significant difference when comparing the involvement of Aboriginal parents and all parents was reflected in areas of no isolation — 54.2 per cent (CI: 48.3%–59.7%) compared with 32.0 per cent (CI: 27.0%–37.6%); and low isolation — 66.1 per cent (CI: 59.9%–72.0%) compared with 29.9 per cent (CI: 24.2%–36.2%) (Table 7.7).

Across levels of relative isolation, there was no significant difference in the proportion of Aboriginal students attending schools where involvement by Aboriginal parents was less than adequate, although there was a trend towards higher proportions of students as the level of relative isolation increased (Figure 7.5).

**FIGURE 7.5:** STUDENTS AGED 4–17 YEARS — PROPORTION IN SCHOOLS THAT HAVE INADEQUATE INVOLVEMENT BY BOTH ABORIGINAL AND ALL PARENTS IN SCHOOL ACTIVITIES AND THEIR CHILDREN'S LEARNING, BY LEVEL OF RELATIVE ISOLATION



Source: Table 7.7



## ADEQUACY OF SCHOOL LEARNING PROGRAMMES AND SCHOOL/PARENT INTERACTIONS

School principals have identified significant gaps in the adequacy of their school's learning programmes for Aboriginal students compared with all students and with their school's interactions with Aboriginal parents compared with all parents. The gaps manifest themselves in areas of no or low isolation where Aboriginal students are generally in the minority. The comparisons emphasise the considerable opportunities that exist for schools to review and enhance their learning and teaching programmes for Aboriginal students and, in particular, to encourage and foster significant improvements in the level of Aboriginal parent involvement in their children's education.

A number of factors may have led to a lack of involvement by Aboriginal parents in their children's learning. Among these are the educational experiences and achievements of the parents. Volume One from the WAACHS<sup>15</sup> found that over seven in ten carers had left school by the end of Year 10 (the level of schooling necessary to achieve a secondary school certificate) and that, as a rule, the proportion completing at least Year 10 declined as the level of relative isolation increased. Important amongst the influences on the educational experiences of carers have been the historical circumstances surrounding colonisation and the role of education as a colonising force; the practical realities of access to schooling in extremely isolated areas; and the relevance of mainstream Australian education in Aboriginal life and culture. While many carers in the survey acknowledged the importance of formal education for themselves and their children, they also pointed to culturally transmitted knowledge about Aboriginal history, land, culture, and spirituality, along with skills in traditional ways of living and bushcraft as constituting a vital part of Aboriginal life and learning.

Factors may also relate to the approach the school takes to collaborating with the parents of Aboriginal students on issues such as school-wide policies and priorities for parent involvement; joint planning of parent involvement programmes between parents and school staff; training staff to liaise with Aboriginal parents; and allowing teachers the time to work more closely with the parents of Aboriginal students.

Whatever the underlying reasons, the high proportion of students attending schools which rated the involvement of Aboriginal parents in school activities and their children's learning as less than adequate raises questions about how well informed Aboriginal parents are in respect of their children's school work performance.



### **'WALK RIGHT IN' – ENCOURAGING PARENTAL INVOLVEMENT IN EDUCATION**

In October 2005, the Western Australian Department of Education and Training launched their 'Walk Right In' initiative<sup>16</sup> — a package designed to motivate, inspire and empower school staff to support parental involvement in education, and to encourage Aboriginal families to be more involved with their children's education and learning. The 'Walk Right In' package comprises a hard copy manual as well as audio-visual presentations.

For Aboriginal education and liaison staff, the package provides a set of planning tools for the involvement of parents in the school and in their children's formal learning. It suggests practical strategies for school leaders and their staff to build strong and productive relationships with the students and their families while at the same time acknowledging the extent of demographic, cultural and linguistic diversity among Aboriginal people. The significant role of Aboriginal and Islander Education Officers is emphasised, particularly the sharing of knowledge and experience of local Aboriginal communities among other teaching staff; developing and undertaking activities to encourage parents to attend school and participate in their children's education; and helping to facilitate community contributions to the formulation of school policies. Teaching staff are also provided with numerous strategies to involve parents in the education process and, to this end, are encouraged to acquire knowledge that will enable them to be sensitive to the circumstances of Aboriginal students and their families and to realise the importance of valuing the significance of Aboriginal culture. The need to confront and deal swiftly and sensitively with racist abuse, harassment, attitudes and violence is also dealt with. As staff develop the skills to interact with parents, students and carers, school leaders are encouraged to empower them to build collaborative relationships with their colleagues and the wider community.

Parents and families are also encouraged to take an interest and involvement in their children's education. A range of activities is promoted, including: ensuring the child has proper nutrition; taking the child to and from school; supporting the child and encouraging them to persevere; showing a positive and encouraging attitude toward the school and the value of a good education; attending school and helping with school activities; becoming more informed about what is happening at the school and having a say in school activities; and providing a role model for the child — both at school and at home. A number of prominent Aboriginal sporting identities reinforce the importance of family support and involvement in their child's education and the value of good communication and parent role modelling.





## PRIMARY CARER AND SCHOOL TEACHER RATINGS OF THE SCHOOL WORK PERFORMANCE OF ABORIGINAL STUDENTS

### RATING STUDENT SCHOOL WORK PERFORMANCE

Primary carers and school teachers were asked to rate the school work performance of Aboriginal students. Questions asked of carers and teachers were, of necessity, differently worded given the unique relationship and role each has with the child in advancing the child's education. Nevertheless, the responses are considered to provide a reasonable basis for comparing and analysing carer and teacher perceptions of how the child is going with school work.

#### Primary carer rating

Primary carers were asked the question: 'Is the child doing OK with his/her school work?' – 'Yes' or 'No'.

#### School teacher rating

As described in Chapter 5, school teachers were asked to assess the student's overall academic performance compared with all students of the same age. Performance categories were:

- ◆ Far below age
- ◆ Somewhat below age
- ◆ At age level
- ◆ Somewhat above age
- ◆ Far above age.

The above five categories were collapsed into two, representing:

- ◆ Low academic performance (students who were 'far below age level' or 'somewhat below age level'). Around six in ten Aboriginal students (57.5 per cent; CI: 54.7%–60.3%) were found to have low academic performance;
- ◆ Average or above average academic performance (students who were 'at age level', 'somewhat above age level' or 'far above age level').

#### Comparing primary carer and teacher ratings

To enable primary carer and teacher ratings to be compared, a carer response that their child was doing OK with their school work was assumed to indicate that the child's school work performance was at least comparable with the teacher category 'At age level'.

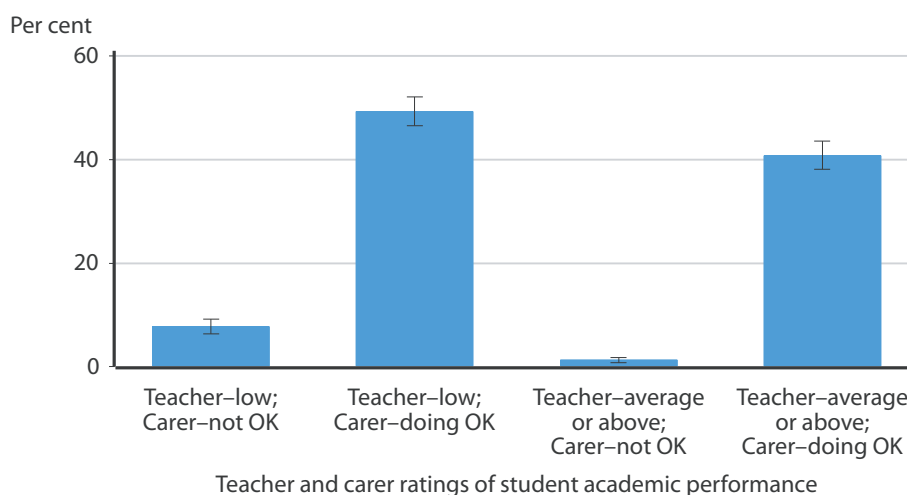
Primary carers of Aboriginal students aged 4–17 years reported that nine in ten students (90.2 per cent; CI: 88.6%–91.5%) were doing OK with their school work. However, when school teachers were asked to rate the overall academic performance of students in their class, a significantly lower proportion — just over four in ten students (42.5 per cent; CI: 39.7%–45.3%) — were reported to have average or above average academic performance (Tables 7.8 and 7.9).



When the school performance ratings of teachers and carers were compared, ratings differed for half of students. Importantly, the difference in ratings was almost exclusively where Aboriginal students were assessed by their teachers as having low academic performance yet were rated by their carers as doing OK with school work (49.3 per cent; CI: 46.6%–52.1%). This proportion is significantly higher than that reported for all students in Western Australia as reported in the 1993 Western Australian Child Health Survey (WA CHS)<sup>17</sup>. The WA CHS found that 15.6 per cent (CI: 13.2%–18.1%) of all Western Australian students were assessed by teachers as having low academic performance yet were rated by their carers as having average or above average performance (see commentary box entitled *Primary carer and teacher ratings of the school work performance of all Western Australian students*).

The WAACHS also found that, for two in five Aboriginal students (40.8 per cent; CI: 38.1%–43.6%), teachers and carers both agreed that the student was performing at an average or above average level or doing OK (Figure 7.6).

**FIGURE 7.6:** STUDENTS AGED 4–17 YEARS — SCHOOL TEACHER AND CARER RATINGS OF STUDENT ACADEMIC PERFORMANCE



Source: Table 7.10

For purposes of further analysis, the four categories of teacher and carer rating comparisons for Aboriginal students have been condensed into the following two categories:

- ◆ Teacher – low academic performance; Carer – doing OK (teachers and carers differ). When this category is used in analyses that follow, the term ‘school work performance’ has been used to describe the combined concepts of teacher-based ‘academic performance’ and carer-based ‘doing OK at school work’. This avoids confusion with analyses presented in previous chapters which are based solely on teacher ratings of overall academic performance.
- ◆ All other students. This category includes 1.3 per cent (CI: 0.8%–1.8%) of Aboriginal students rated by their teachers to have average or above average academic performance yet reported by their carers to not be doing OK with school work.



## PRIMARY CARER AND TEACHER RATINGS OF THE SCHOOL WORK PERFORMANCE OF ALL WESTERN AUSTRALIAN STUDENTS

The 1993 WA CHS<sup>17</sup> obtained ratings of the school work performance of all Western Australian students aged 4–16 years from both their teachers and primary carers. While the teacher ratings scale is the same for both the WAACHS and the WA CHS, carer ratings in these surveys were obtained using different questions.

### Carer ratings of school work performance

Carers in the WA CHS were asked “How well has the child performed in school during the past 6 months?” Response categories were ‘poor’, ‘below average’, ‘average’, ‘well’ and ‘excellent’.

Over nine in ten Western Australian students were rated as average, well or excellent by their carers, with the school performance of one-third of students (33.0 per cent; CI: 30.3%–35.7%) rated as well, while two in five students (39.4 per cent; CI: 36.7%–42.2%) were rated as excellent (Table 7.11).

### Teacher ratings of school work performance

Teachers rated the overall academic performance of all Western Australian students as either ‘far below age’, ‘somewhat below age’, ‘at age level’, ‘somewhat above age level’, or ‘far above age’.

Teachers were less inclined than carers to rate all students in the highest performing category (far above average for teachers; excellent for carers). Nearly four in five Western Australian students were rated by teachers as being at age level or above, with 46.4 per cent (CI: 43.5%–49.4%) rated as being at age level and just over one quarter (26.6 per cent; CI: 24.0%–29.3%) rated as somewhat above age. Less than one in ten students were rated as far above age (Table 7.12).

### Comparing carer and teacher ratings of all Western Australian students

To enable comparisons between carer and teacher ratings of Western Australian students, the four categories of carer school work performance have been collapsed into two:

- ◆ ‘Low’ — combining poor and below average. This low category has been assumed to indicate that the child’s school work performance was comparable with the teacher rating ‘low academic performance’ (see commentary box entitled *Rating student school work performance*).
- ◆ ‘Average or above average’ — combining average, well and excellent. This category is assumed to be comparable with the teacher rating ‘average or above average academic performance’.

*Continued . . . .*



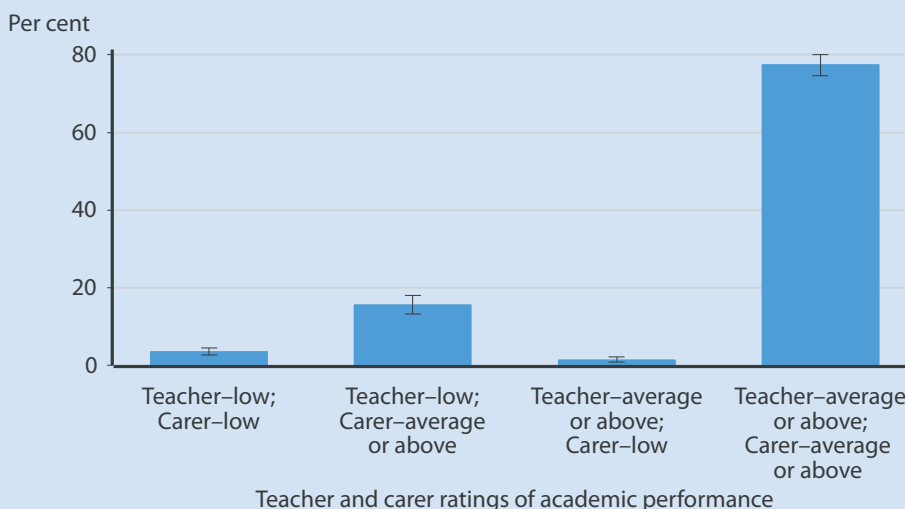
**PRIMARY CARER AND TEACHER RATINGS OF THE SCHOOL WORK PERFORMANCE OF ALL WESTERN AUSTRALIAN STUDENTS** *(continued)*

Comparing carer and teacher ratings of all Western Australian students *(continued)*

When carer and teacher ratings for each Western Australian student were compared, 15.6 per cent (CI: 13.2%–18.1%) of students were assessed by teachers as having low academic performance yet rated by their carers as having average or above average performance. This is substantially below the equivalent level of discrepancy for Aboriginal students of 49.3 per cent (CI: 46.6%–52.1%).

For just over three-quarters (77.5 per cent; CI: 74.7%–80.1%) of all Western Australian students, carers and teachers agreed that the student was of average or above average performance. The equivalent level of agreement for Aboriginal students was a significantly lower 40.8 per cent (CI: 38.1%–43.6%) (Table 7.13).

WESTERN AUSTRALIAN STUDENTS — SCHOOL TEACHER AND CARER RATINGS OF ACADEMIC PERFORMANCE



Source: Table 7.13

These results suggest that most carers are apt to view their children’s school in the most positive light. Even so, the extent of the discrepancy between carer and teacher reports for all Western Australian students is much lower than that seen for Aboriginal students, suggesting that the carers of all Western Australian students are more in tune with the academic performance of their children than carers of Aboriginal students. This does not mean that Aboriginal parents value a good education any less for their children. Rather it may partly reflect the differences in the educational experiences of non-Aboriginal and Aboriginal people in previous generations. For example, as reported in *Volume One — The Health of Aboriginal Children and Young People*,<sup>15</sup> the level of educational achievement of carers of Aboriginal children is substantially lower than for carers of non-Aboriginal children. It may also point to the need for better two-way connection between the carers of Aboriginal students and the school system.

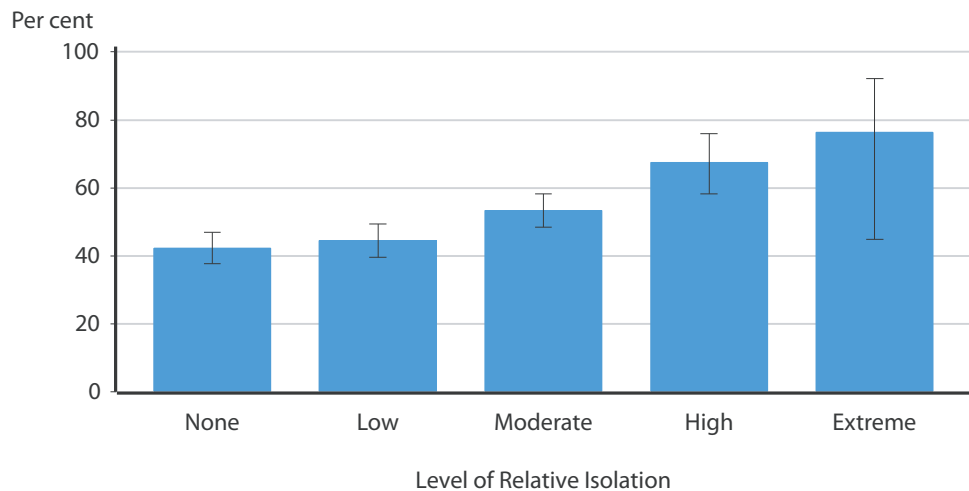


## LEVEL OF RELATIVE ISOLATION

When primary carer and teacher ratings were examined separately, the proportion of students rated by their primary carer as doing OK at school work across the five levels of isolation remained relatively unchanged — ranging from 89.3 per cent (CI: 86.3%–92.0%) in the Perth metropolitan area to 97.2 per cent (CI: 71.5%–100.0%) in areas of extreme relative isolation (Table 7.8). This contrasted significantly with teacher ratings, which declined steadily from 48.6 per cent (CI: 43.9%–53.4%) of students rated as average or above average academic performance in the Perth metropolitan area to 20.9 per cent (CI: 5.7%–43.7%) in areas of extreme relative isolation (Table 7.9).

The spatial variation in individual carer and teacher ratings translated to a significant increase in the proportion of students for whom carer and teacher rating comparisons differed as the level of isolation increased. Among the population of Aboriginal students in the Perth metropolitan area, there was a discrepancy in primary carer and teacher ratings for 42.3 per cent (CI: 37.7%–47.0%) of students. This proportion increased to 67.4 per cent (CI: 58.2%–75.9%) in areas of high relative isolation and to 76.3 per cent (CI: 44.9%–92.2%) in extremely isolated areas (Figure 7.7).

**FIGURE 7.7:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY LEVEL OF RELATIVE ISOLATION



Source: Table 7.14

In subsequent sections of this chapter, a number of student, carer, family and school factors are analysed to determine those associated most strongly with the propensity for primary carers to differ from teachers in rating student academic performance. That analysis uses the teacher’s rating as the benchmark measure of academic performance. This decision is supported by validation of teacher ratings using two independent measures of academic achievement, as detailed in the following section.



## VALIDATING TEACHER RATINGS OF STUDENT ACADEMIC PERFORMANCE AS THE BENCHMARK FOR COMPARING PRIMARY CARER RATINGS

Chapter 5 of this volume analysed teacher ratings of the literacy, numeracy and overall academic performance of Aboriginal students. It also described and analysed additional measures of the academic performance of Aboriginal students — the Western Australian Literacy and Numeracy Assessment (WALNA) and measures of proficiency in the English language (Word Definitions) and visuo-spatial reasoning (Matrices). These measures were used to validate teacher ratings of academic performance and each was found to be strongly associated with teacher ratings. Confirmation of the reliability of teacher ratings of overall academic performance has been the basis for their use as the primary measure of academic achievement of Aboriginal students in subsequent chapters of this volume.

Given the high level of discrepancy between primary carer and teacher ratings of the academic performance of Aboriginal students, it is reasonable to expect similar levels of discrepancy between results from the WALNA, Word Definitions and Matrices tests, and primary carer and teacher ratings of student academic performance.

The following analysis compares WALNA, English Word Definitions and Matrices test results against primary carer and teacher ratings of academic performance. While the analysis re-confirms the reliability of teacher ratings, it also highlights a significantly weaker association between the test results and the primary carer's rating of student academic performance.

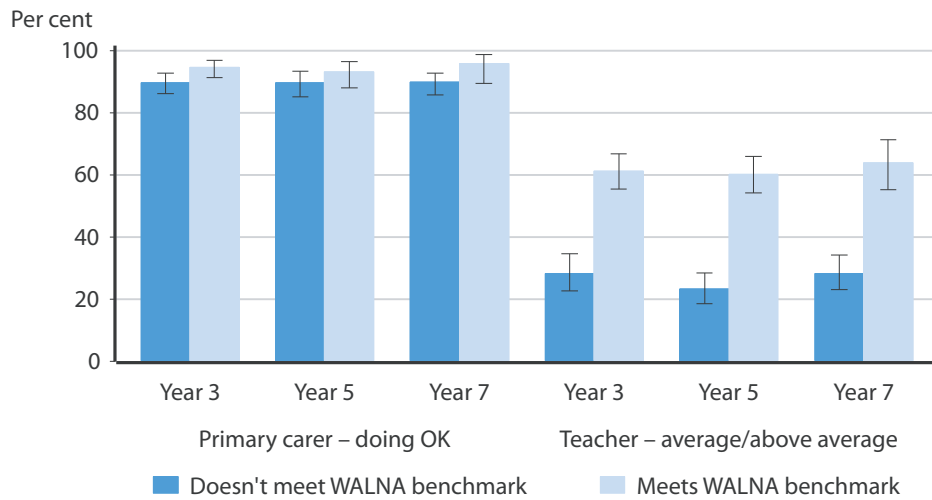
### WALNA – COMPARISON WITH PRIMARY CARER AND TEACHER RATINGS OF ACADEMIC PERFORMANCE

WALNA is a curriculum-based assessment that tests students' knowledge and skills in numeracy, reading, spelling and writing. The WALNA test is administered annually to students in Years 3, 5 and 7. Test results are related to national benchmark figures which are the agreed standards of performance that professional educators across the country deem to be the minimum level required for Year 3, 5 and 7 students. For more information, see the commentary box entitled *Western Australian Numeracy and Literacy Assessment (WALNA) data* in Chapter 5.

For each of the four WALNA tests, a student's performance against the national test benchmark was compared with both the primary carer and teacher rating of the student's academic performance (Tables 7.15–7.26). Regardless of both the type of test and test year, primary carers rated around nine in ten of those students who did not meet the WALNA benchmark as doing OK at school work. This proportion was not statistically significantly different from students they rated as doing OK who had met the WALNA benchmark. This finding is in stark contrast to teacher ratings, where around one quarter of students who had not met the benchmark were rated as average or above average academic performance while six in ten of students who met the benchmark were rated as average or above average (Figures 7.8–7.11).

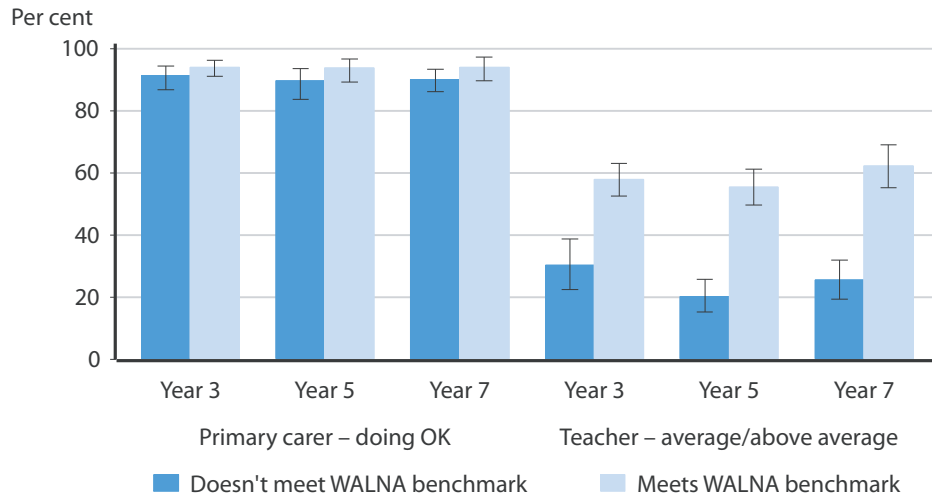


**FIGURE 7.8:** STUDENTS AGED 4–17 YEARS — PROPORTION RATED BY PRIMARY CARERS AS DOING OK AT SCHOOL WORK OR BY TEACHERS AS HAVING AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY WALNA NUMERACY TEST RESULTS



Source: Tables 7.15, 7.16 and 7.17

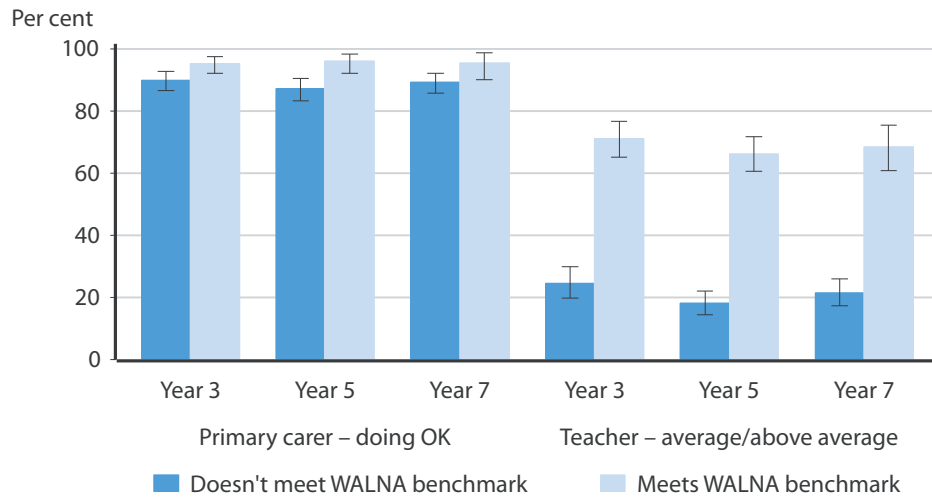
**FIGURE 7.9:** STUDENTS AGED 4–17 YEARS — PROPORTION RATED BY PRIMARY CARERS AS DOING OK AT SCHOOL WORK OR BY TEACHERS AS HAVING AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY WALNA READING TEST RESULTS



Source: Tables 7.18, 7.19 and 7.20

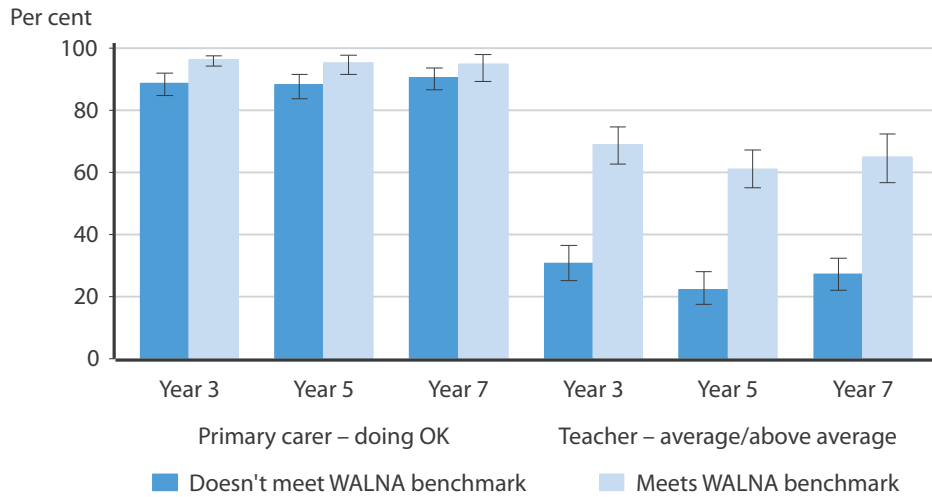


**FIGURE 7.10:** STUDENTS AGED 4–17 YEARS — PROPORTION RATED BY PRIMARY CARERS AS DOING OK AT SCHOOL WORK OR BY TEACHERS AS HAVING AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY WALNA SPELLING TEST RESULTS



Source: Tables 7.21, 7.22 and 7.23

**FIGURE 7.11:** STUDENTS AGED 4–17 YEARS — PROPORTION RATED BY PRIMARY CARERS AS DOING OK AT SCHOOL WORK OR BY TEACHERS AS HAVING AVERAGE OR ABOVE AVERAGE ACADEMIC PERFORMANCE, BY WALNA WRITING TEST RESULTS



Source: Tables 7.24, 7.25 and 7.26





## WORD DEFINITIONS AND MATRICES TESTS – COMPARISON WITH PRIMARY CARER AND TEACHER RATINGS OF ACADEMIC PERFORMANCE

The Word Definitions and Matrices tests are a series of standardised tests of cognitive ability designed for children and young people aged from two and a half to seventeen years. As part of the WAACHS, teachers of surveyed Aboriginal students administered two tests:

- ◆ a Word Definitions test designed to measure retrieval and application of knowledge and the range of a child's English vocabulary. This test required students to provide definitions for 20 words. An estimated 78.9 per cent (CI: 76.6 %–81.1%) of Aboriginal students completed the Word Definitions test
- ◆ a Matrices test designed to measure visuo-spatial reasoning. This test has 11 items and students were asked to complete a pattern or design. An estimated 82.0 per cent (CI: 79.9%–83.9%) of Aboriginal students completed a Matrices test.

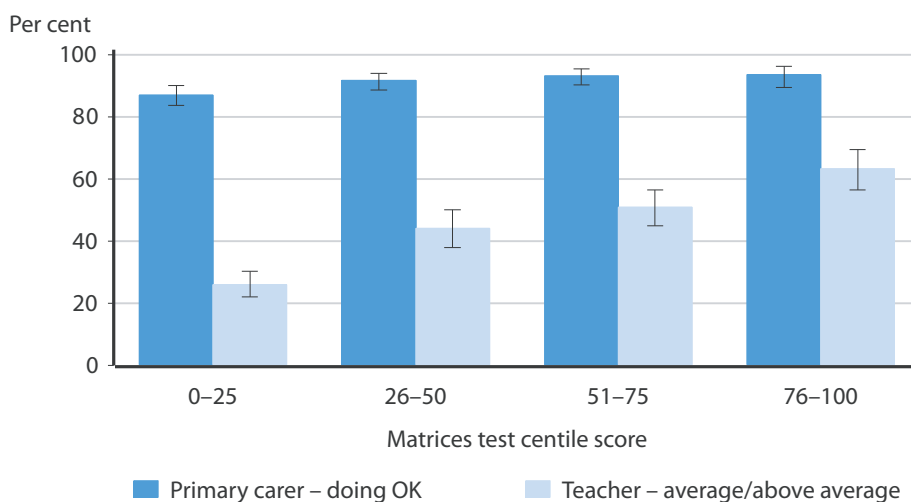
Raw scores from each test were converted into a centile score based on an algorithm that takes into account the test score and the age of the child at the time of the test. The centile score can range from 0 to 100 and provides an indication of the child's performance in relation to other children. For example, a centile score of 75 indicates that, on average, 75 children out of 100 would score at the same level or below (and 25 out of 100 would score higher). For more information, see the commentary box entitled *Verbal and non-verbal performance measures* in Chapter 5.

For Aboriginal students in each of the four centile groups, separate comparisons were made of the primary carer and teacher ratings of their academic performance. The data show that the proportion of students rated by teachers as having average or above average academic performance increases progressively with increasing centile scores. No similar gradient was observed for primary carer ratings of student school work performance, with around nine in ten students rated by their primary carers as doing OK at school work in each centile group.

**Matrices (visuo-spatial reasoning) test.** Nearly two in five students performed to a low standard in the Matrices test — that is, 38.1 per cent (CI: 35.3%–41.0%) scored in the 25th centile or below. Of these students, primary carers rated 87.1 per cent (CI: 83.8%–90.1%) as doing OK at school work while a significantly lower 26.1 per cent (CI: 22.2%–30.4%) were rated by their teachers as having average or above average academic performance. Across the four centile groups, the proportion of students rated by their primary carer as doing OK at school work showed little variation whereas teacher ratings showed a distinct gradient, increasing progressively as the students scored at a progressively higher standard in the Matrices test (Figure 7.12).



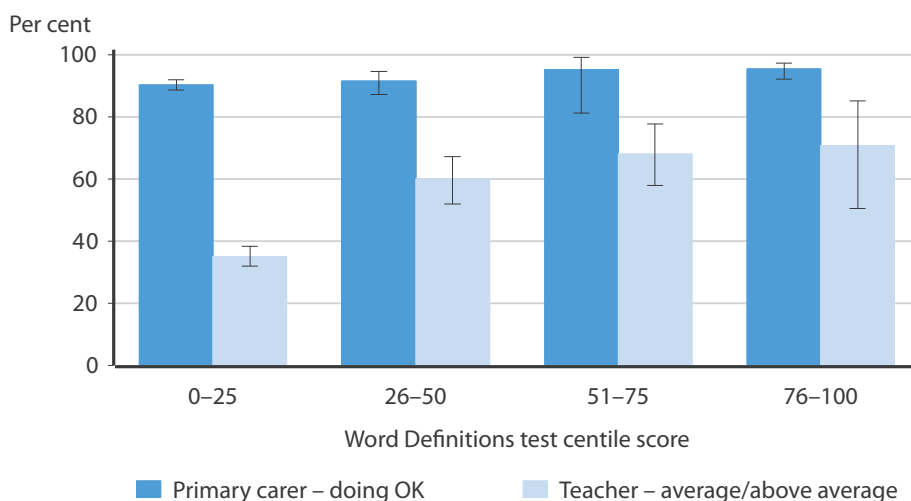
**FIGURE 7.12:** STUDENTS AGED 4–17 YEARS TAKING THE MATRICES TEST — PROPORTION IN EACH CENTILE SCORE GROUP, BY PRIMARY CARER AND TEACHER RATING OF THEIR ACADEMIC PERFORMANCE



Source: Tables 7.27 and 7.28

**Word Definitions test.** As with the Matrices test, the proportion of students rated by their primary carers as doing OK at school work showed little correlation with Word Definitions centile groups. In contrast, teacher ratings showed a distinct gradient, increasing progressively as the students scored at a progressively higher standard in the Word Definitions test (Figure 7.13).

**FIGURE 7.13:** STUDENTS AGED 4–17 YEARS TAKING THE WORD DEFINITIONS TEST — PROPORTION IN EACH CENTILE SCORE GROUP, BY PRIMARY CARER AND TEACHER RATING OF THEIR ACADEMIC PERFORMANCE



Source: Tables 7.29 and 7.30



## FACTORS ASSOCIATED WITH DISCREPANCIES IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE

A number of student, carer, family and school factors were analysed to determine the strength of their association with discrepancies in the primary carer and teacher ratings of student school work performance. Just over half of the 38 factors analysed were found to be significantly associated with discrepancies in carer/teacher ratings.

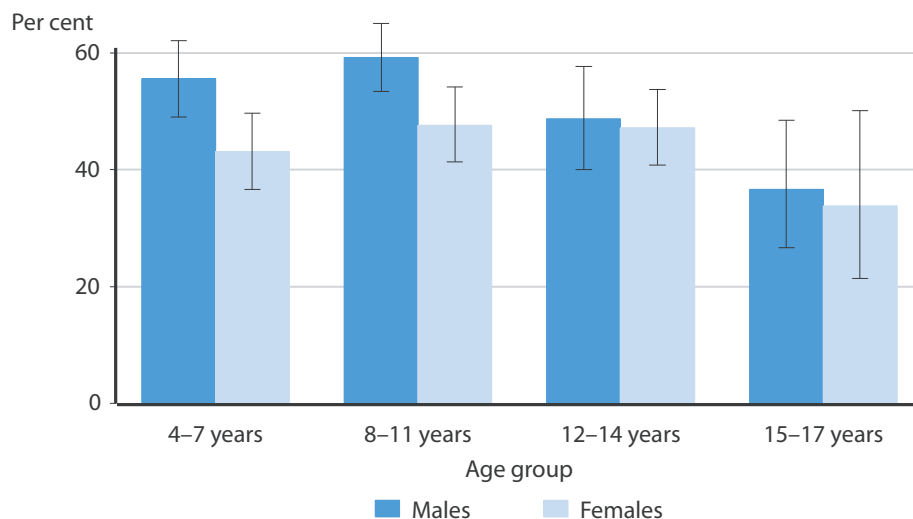
### STUDENT FACTORS

#### Sex and age

In the broader age groups, the highest level of discrepancy between primary carer and teacher ratings of academic performance occurred for younger Aboriginal male students aged 4–11 years — 57.6 per cent (CI: 53.4%–61.8%). This compares with levels of around 45 per cent for male students aged 12–17 years as well as female students in each of these broad age groups (Table 7.31).

When classified into smaller age groups, at least half of Aboriginal students aged 4–7 years and 8–11 years were the subject of discrepancy in carer and teacher ratings. The proportion of male students in each of these age categories who had their school work performance rated differently was higher than that for females, although the estimates bordered on being statistically significant (Figure 7.14). The proportion of students who were the subject of discrepancy in ratings by carers and teachers declined for 12–14 year-olds to just under half (47.8 per cent; CI: 42.3%–53.3%) and to 35.2 per cent (CI: 27.1%–44.6%) for 15–17 year-olds, a proportion significantly lower than that for 4–7 year-olds and 8–11 year-olds (Table 7.31).

**FIGURE 7.14:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY SEX AND AGE GROUP



Source: Table 7.31



## Emotional and behavioural health of Aboriginal students

**Emotional or behavioural difficulties.** The measurement of emotional or behavioural difficulties in Aboriginal students in the survey was undertaken using the Strengths and Difficulties Questionnaire (SDQ). The SDQ comprises 25 questions which were put to both carers and teachers. The questions probed five areas of psychological adjustment in children. Based on responses to the SDQ, a strengths and difficulties total score that can range from 0 to 40 was calculated. The risk of clinically significant emotional or behavioural difficulties was then assessed with reference to the SDQ total score. Students with a score of 0–11 were identified as having low risk of clinically significant emotional or behavioural difficulties, those in the range 12–15 as having moderate risk, and those in the range 16–40 as having high risk. See *Strengths and Difficulties Questionnaire* in *Glossary* for further details of the SDQ.

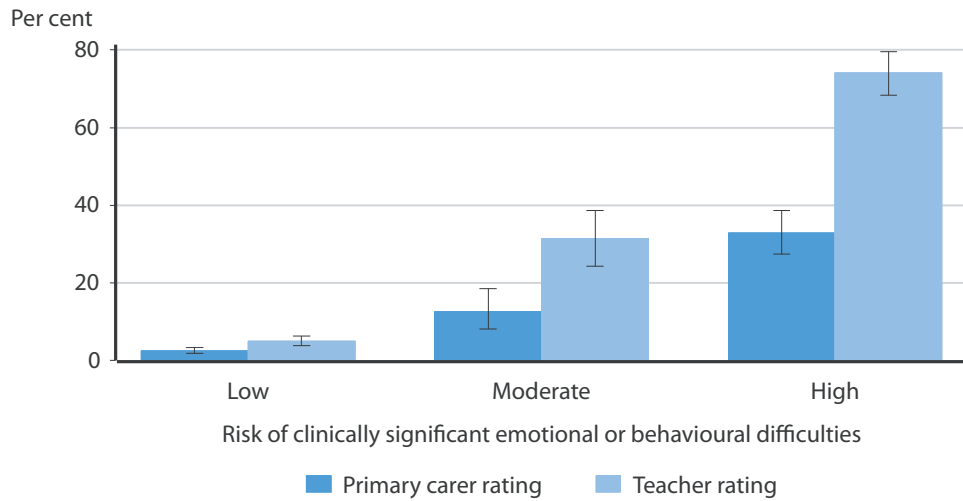
A significantly higher proportion of students were rated by their primary carers as being at high risk of clinically significant emotional or behavioural difficulties (24.2 per cent; CI: 21.6%–26.9%) compared with 16.8 per cent (CI: 14.8%–19.0%) of students rated by their teachers as being at high risk (Table 7.32).

Students rated by primary carers as being at high risk were not necessarily the same students rated by teachers as being at high risk. Differences in the way primary carers and teachers view and assess emotional and behavioural difficulties are expected, given differences in the length of time each has to observe the child and the settings in which the observations take place. There may also be cultural issues for both carers and teachers that determine the way emotions and behaviours are observed and interpreted.

**The impact of emotional or behavioural difficulties.** The presence of emotional or behavioural difficulties can impact adversely upon the day-to-day functioning of the student and this, in turn, could be expected to have detrimental effects on the student's school work performance. Primary carers of Aboriginal students were asked to rate the level of impact that emotional or behavioural difficulties had on home life, friendships, classroom learning and leisure activities of the student, while teachers rated the impact on peer relationships and classroom learning. Of students rated by their primary carers as being at high risk of clinically significant emotional or behavioural difficulties, around one-third (32.8 per cent; CI: 27.5%–38.6%) were assessed by the primary carer to be at high risk of clinically significant functional impairment as a result of these difficulties. The proportion of students rated by their teachers as being at high risk of clinically significant emotional or behavioural difficulties who were also at high risk of clinically significant functional impairment as a result of these difficulties was considerably higher at 74.2 per cent (CI: 68.4%–79.6%) (Figure 7.15).



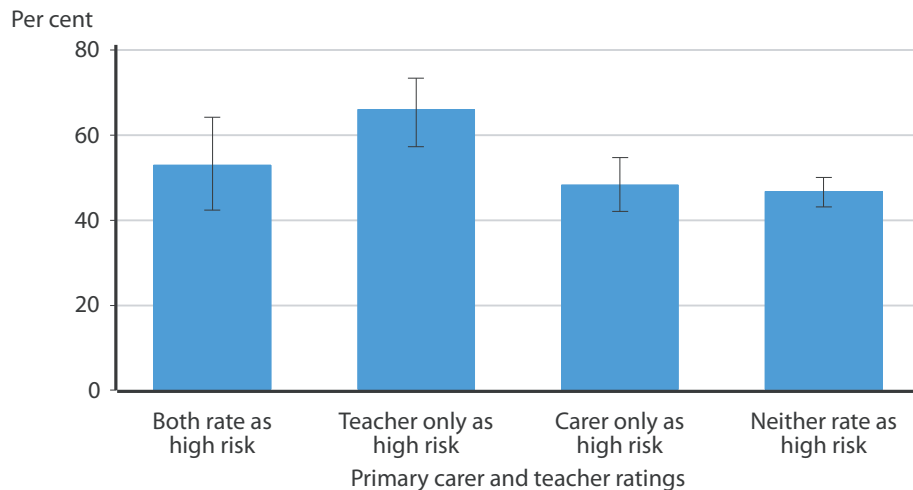
**FIGURE 7.15:** STUDENTS AGED 4–17 YEARS AT HIGH RISK OF CLINICALLY SIGNIFICANT FUNCTIONAL IMPAIRMENT, BY LEVEL OF RISK OF CLINICALLY SIGNIFICANT EMOTIONAL OR BEHAVIOURAL DIFFICULTIES AS RATED BY PRIMARY CARERS AND TEACHERS



Source: Table 7.33

**Emotional or behavioural difficulties and primary carer and teacher ratings of school work performance.** Of those students who were rated only by the teacher as being at high risk of clinically significant emotional or behavioural difficulties, 66.0 per cent (CI: 57.3%–73.5%) were considered by teachers to have low academic performance yet were rated by their carers as doing OK at school work. This proportion was significantly higher than the 48.3 per cent (CI: 42.1%–54.8%) level of discrepancy for those students rated only by the primary carer as being at high risk. It was also higher (though not significantly so) than the 53.0 per cent (CI: 42.4%–64.3%) level of discrepancy for those students rated by both the primary carer and teacher as being at high risk (Figure 7.16).

**FIGURE 7.16:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY PRIMARY CARER AND TEACHER RATINGS OF THE STUDENT’S RISK OF CLINICALLY SIGNIFICANT EMOTIONAL OR BEHAVIOURAL DIFFICULTIES



Source: Table 7.34



## EMOTIONAL AND BEHAVIOURAL WELLBEING AND EDUCATION

There are a number of possible explanations for relatively low proportions of carer-rated clinically significant functional impairment in Aboriginal children at high risk of clinically significant emotional or behavioural difficulties. For example, as discussed in Volume Two,<sup>18</sup> carers of Aboriginal children may not be as strict, particularly with younger children. This may reflect benefits stemming from traditional cultural practices and access to extended kinship and family support that buffer the effects of adverse behaviours and distress in children. Alternatively, Aboriginal carers may be sensitive to lesser degrees of social and emotional distress in their children. This could be the result of other sources of stress upon the carer, such as higher levels of poverty, lower levels of social support, and neighbourhood or community circumstances such as violence. It may also reflect the carers' views that treatment and help are inaccessible or rarely available.

That there is such a significant disparity in primary carer and teacher ratings of the impact of clinically significant emotional or behavioural difficulties would suggest that primary carers are more likely than teachers to understate these impacts as they apply to the child's learning outcomes. It may also be that carers are sensitive to lesser degrees of social and emotional distress in their children due to being under their own stresses (e.g. from higher levels of poverty; or from neighbourhood or community violence). The implication of carers understating the impact of adverse emotions or behaviours on their child's learning is that they fail to recognise that their child is not coping well academically.

The difference in ratings of academic performance for students assessed only by the primary carer or only by the teacher to be at high risk of clinically significant emotional or behavioural difficulties reflects, in part, the much stronger association between the teacher's assessment both of this risk and the high risk of clinically significant functional impairment (in particular classroom learning).

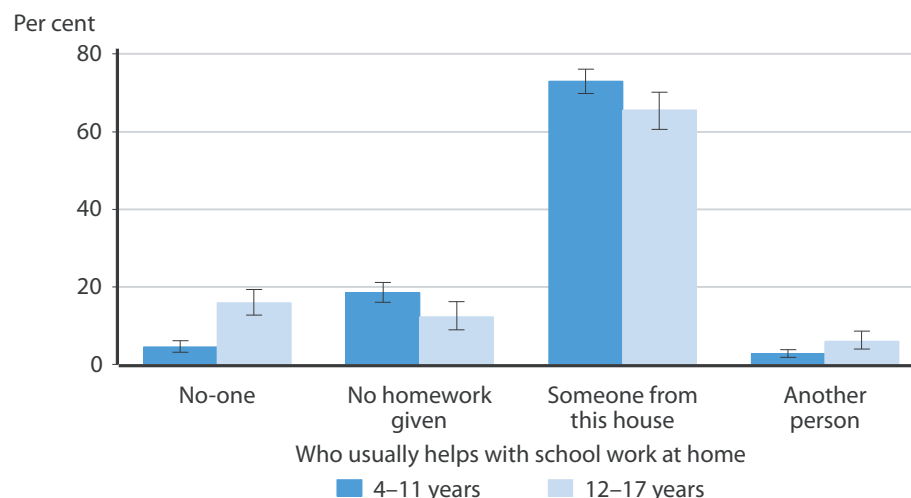
### 7 Helping with school work at home

Of Aboriginal students aged 4–17 years, seven in ten (70.4 per cent; CI: 67.6%–73.2%) were reported by their carers as being helped with their school work by someone from the student's home. A higher proportion of 4–11 year-olds (73.0 per cent; CI: 69.9%–76.1%) were receiving such help than 12–17 year-olds (65.6 per cent; CI: 60.6%–70.2%), although the difference was not statistically significant.

As could be expected, a higher proportion of students aged 4–11 years were not given homework (18.5 per cent; CI: 16.0%–21.2%) compared with children aged 12–17 years (12.2 per cent; CI: 9.0%–16.2%) although the difference was not statistically significant. In contrast, a significantly higher proportion of older children (15.9 per cent; CI: 12.8%–19.4%) had no one to help them with school work at home than younger children (4.5 per cent; CI: 3.1%–6.1%) (Figure 7.17).



**FIGURE 7.17:** STUDENTS AGED 4–17 YEARS — WHO USUALLY HELPS THE STUDENT WITH THEIR SCHOOL WORK AT HOME, BY AGE GROUP



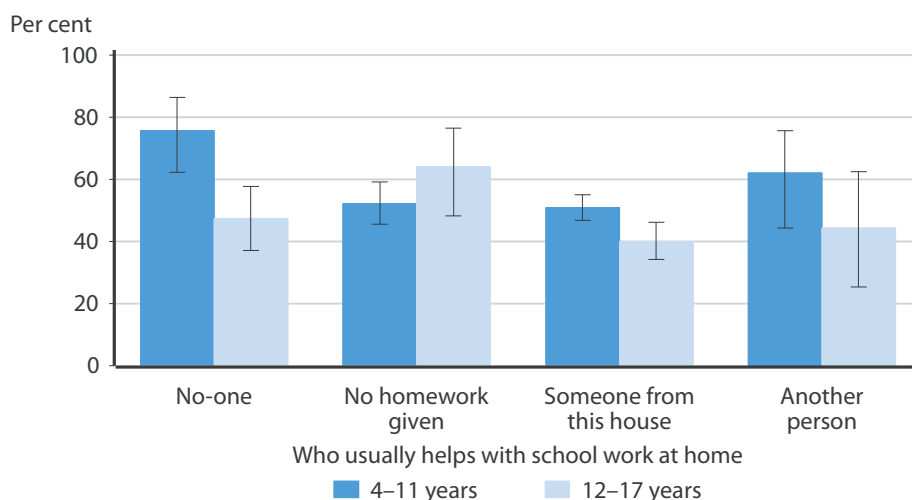
Source: Table 7.35

The propensity for there to be a discrepancy in primary carer and teacher ratings of student school work performance was moderated when someone from the student’s home was involved in helping them with their school work. Of Aboriginal students who received help from someone in their home, less than half (47.4 per cent; CI: 44.1%–50.7%) were rated differently by their primary carers and teachers. This proportion is lower than for students who had no interaction at home with their school work, such as those who have no-one to help them with school work (57.2 per cent; CI: 48.2%–65.5%) or who are not given homework (55.4 per cent; CI: 48.9%–61.9%), although the differences were not statistically significant (Table 7.36).

Of the seven in ten students who were helped with school work by someone from the home, students aged 4–11 years were subject to greater levels of discrepancy than 12–17 year-olds — 51.0 per cent (CI: 46.9%–55.1%) compared with 40.1 per cent (CI: 34.3%–46.3%). Similarly, where no-one helped the student at home, the level of discrepancy between primary carer and teacher ratings was significantly higher for 4–11 year-olds (75.8 per cent; CI: 62.4%–86.5%) than 12–17 year-olds (47.4 per cent; CI: 37.2%–57.8%) (Figure 7.18).



**FIGURE 7.18:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY WHO USUALLY HELPS THE STUDENT WITH THEIR SCHOOL WORK AT HOME AND AGE GROUP



Source: Table 7.36

## CARER FACTORS

### Primary carer speaking an Aboriginal language

The school work performance of two in three (66.9 per cent; CI: 59.9%–73.0%) Aboriginal students in the care of a primary carer conversant in an Aboriginal language was rated differently by the carer and teacher. This proportion was significantly higher than that for students cared for by a primary carer who only spoke a few Aboriginal words (47.2 per cent; CI: 43.0%–51.5%) or did not speak an Aboriginal language (43.6 per cent; CI: 39.7%–47.6%) (Table 7.37). As reported in WAACHS Volume One, the proportion of carers able to hold a conversation in an Aboriginal language increased substantially with increasing isolation.

### Primary carer attending Aboriginal ceremonies

One measure of the primary carer’s participation in traditional Aboriginal culture was whether they had gone to any Aboriginal ceremonies in the 12 months prior to the survey. For carers that had attended such ceremonies, 62.5 per cent (CI: 55.9%–68.5%) of students in their care were the subject of a discrepancy in carer/teacher ratings of their school work performance compared with 46.1 per cent (CI: 43.2%–49.0%) of students whose primary carers had not attended Aboriginal ceremonies (Table 7.38).

7





### Importance of religion/spiritual beliefs to the primary carer

Another aspect of Aboriginal culture is the adherence to traditional spiritual beliefs. Due to the intermingling of religion and traditional spirituality since colonisation, primary carers were not asked specifically about the importance of spiritual beliefs in their life. Rather, the survey sought to determine how important religion/spiritual beliefs were in their life. For students in the primary care of a person who considered religion or spiritual beliefs to be very important in their lives, 53.9 per cent (CI: 49.2%–58.4%) had their school work performance rated differently. This compares with 43.7 per cent (CI: 37.1%–50.1%) of students whose primary carers did not consider religion/spiritual beliefs to be at all important in their lives (Table 7.39).

## VALUING ABORIGINAL PERSPECTIVES ABOUT ABORIGINAL EDUCATION

### A case study of Cherbourg State School, Queensland<sup>9</sup>

In 1998, the Cherbourg State School, an Aboriginal community school in the South Burnett district in Queensland, was characterised by: extremely poor levels of academic performance and school attendance rates; lack of student pride in self, school and Aboriginality; very low expectations of student behaviour and student performance that some staff described as being a social and cultural legacy; and very low and decreasing enrolments. By the end of 2001, major improvements in student outcomes — reduced absenteeism, improved behaviour and improved academic performance — had been achieved and the culture of the school had been significantly transformed.

### Taking the school to the community

The period of change experienced at Cherbourg was driven by leadership shown by the school's first Aboriginal principal. As a first point in facilitating change, the principal took the school to the community, undertaking extensive discussions with community power brokers — the community council, community Elders and the parents. Establishing a collective understanding of what the parents and community expected from the school in respect of their children's education and what the school expected of the parents and the community was seen as being '... far more crucial than things like school curriculum programmes, etc.'. The school, parents and the community collectively agreed that '... the people of Cherbourg had every right to expect their children to perform academically at a level of any other child from any other school, and to have a sense of what it means to be Aboriginal.' This vision became encapsulated in the school motto 'Strong and Smart' which anchors everything that occurs in the school, including school attendance and academic performance.

### Valuing what it is to be Aboriginal

Significant change was also facilitated by confronting issues that key players at the school put down to being 'Aboriginal'. Children had negative perceptions of who they were as Aboriginal children and, historically, teachers were in the habit of

*Continued . . . .*



**VALUING ABORIGINAL PERSPECTIVES ABOUT ABORIGINAL EDUCATION** *(continued)*Valuing what it is to be Aboriginal *(continued)*

accepting under-achievement as an 'Aboriginal thing'. This historical legacy is evident in the WAACHS findings, where a number of factors strongly associated with primary carers differing from teachers in their assessment of a child's academic performance (carers not in tune with their child's education) were related to being of Aboriginal descent, speaking an Aboriginal language, attending Aboriginal ceremonies, and adhering to traditional spiritual beliefs. By confronting these issues, the school has:

- ◆ *built solidarity and a '... feeling of worth about who we are as Aboriginal people'.* Simple and powerful strategies to generate a strong sense of solidarity and feeling of worth were: the development of a school song incorporating the theme of 'we're young and black and deadly' ('deadly' in an Aboriginal context means excellent; the best); introducing a school uniform; and establishing 'school tidy zones' where pride in being Aboriginal translated to the children dramatically improving the appearance of the school.
- ◆ *changed the school culture.* Significant improvements in attendance and academic performance were achieved by a direct challenge to the students. If they were to believe in the notion of 'Strong and Smart' as not just words or to be 'young and black and deadly' they had to act 'young and black and deadly'. This meant coming to school each day and working harder to get stronger and smarter. There were also fairly rapid improvements in student behaviour due largely to support from parents and grandparents for the principal to 'growl' at their children if they were doing the wrong thing.
- ◆ *valued and utilised Aboriginal staff within the school.* Aboriginal staff were given a genuine say in strategic and operational matters. This '... impacted upon the psyche of the children who were starting to see, feel and believe in Aboriginal leadership, underpinning a more positive belief in that strong and positive sense of what it means to be Aboriginal'.
- ◆ *developed a whole-of-school Aboriginal studies programme.* An Aboriginal studies programme, recognised as an integral part of the school's curriculum framework, was developed for children from pre-school to Year 7 requiring two hours of study per week. The programme takes an honest look at issues challenging the community such as unemployment, alcoholism, domestic violence and child abuse, emphasising that '... these are often the legacy of historical and sociological processes, **and not the legacy of being Aboriginal**'. As children come to understand these learnings, it is expected that they will be empowered enough to decide the extent to which any of these personal experiences impact positively or negatively upon them. The implication for the whole community is that they can '... move positively into the future, and hopefully leave behind the negative disruptions of the past'.

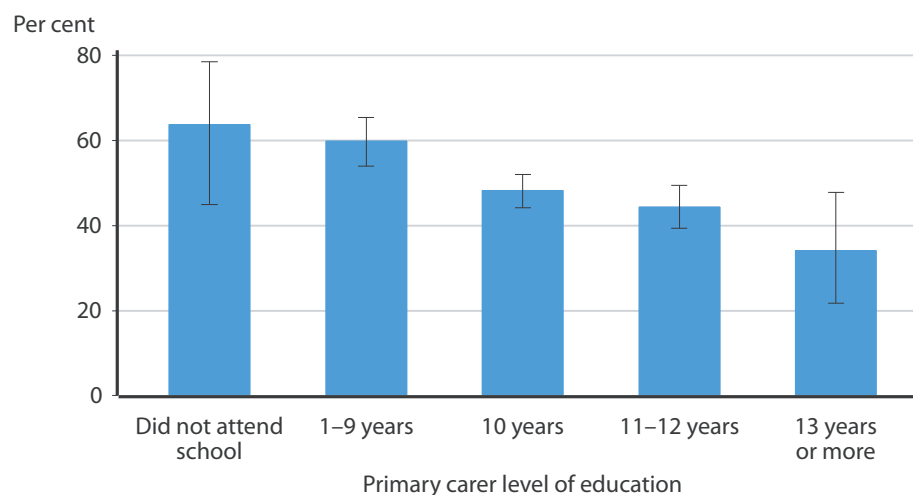
Starting with a crucial programme of parent/community engagement followed by strategies that value what it is to be Aboriginal in an educational setting, the Cherbourg school has achieved dramatic gains in Aboriginal schooling and in student education outcomes within a very short period of time.



## Carer education

Primary carers with post-school qualifications were found to have the lowest level of discrepancy over student school work performance compared with carers with lower levels of education or no education at all. This finding would appear indicative of more highly educated carers being better equipped to support the educational progress of their children at school. Around one-third (34.1 per cent; CI: 21.8%–47.8%) of Aboriginal students cared for by a primary carer who had achieved a post-school qualification had their school work performance rated differently. This compares with the proportion of students whose primary carers had never gone to school (63.8 per cent; CI: 44.9%–78.5%) or had left school before Year 10 (59.8 per cent; CI: 54.0%–65.4%) (Figure 7.19).

**FIGURE 7.19:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY PRIMARY CARER LEVEL OF EDUCATION



Source: Table 7.40

## Carer labour force status

Primary carers who were employed recorded the lowest level of discrepancy (42.7 per cent; CI: 38.1%–47.4%) compared with carers who were not in the labour force (54.5 per cent; CI: 50.8%–58.1%) and carers who were unemployed (51.0 per cent; CI: 42.2%–59.2%) (Table 7.41).

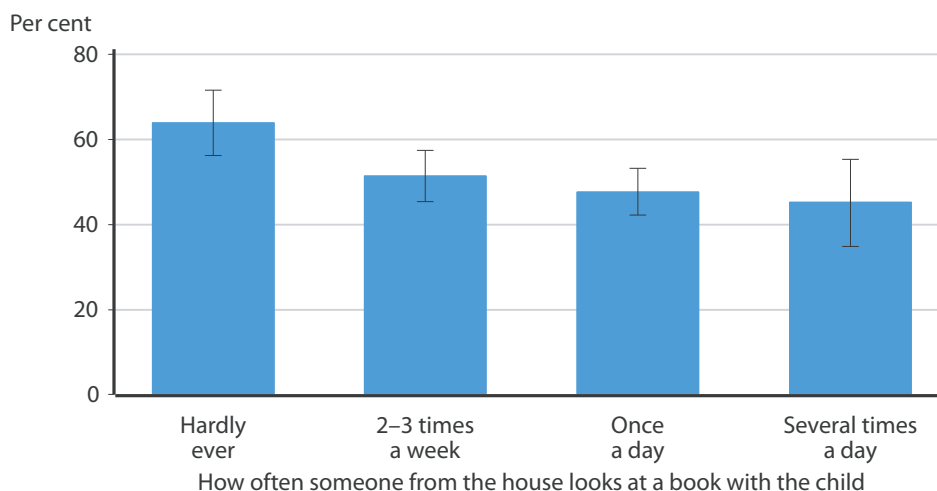
## FAMILY FACTORS

### Looking at a book with the child

For students aged 4–11 years, carers were asked how often someone from the household looked at a book with the child. In homes where someone hardly ever looked at a book with the child, there was a discrepancy in primary carer/teacher ratings of the student's school work performance for nearly two in three students (63.9 per cent; CI: 56.3%–71.6%). This decreased to 45.2 per cent (CI: 34.8%–55.3%) of 4–11 year-old students in homes where someone looked at a book with them several times a day (Figure 7.20).



**FIGURE 7.20:** STUDENTS AGED 4–11 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY HOW OFTEN SOMEONE FROM THE HOUSE LOOKED AT A BOOK WITH THEM



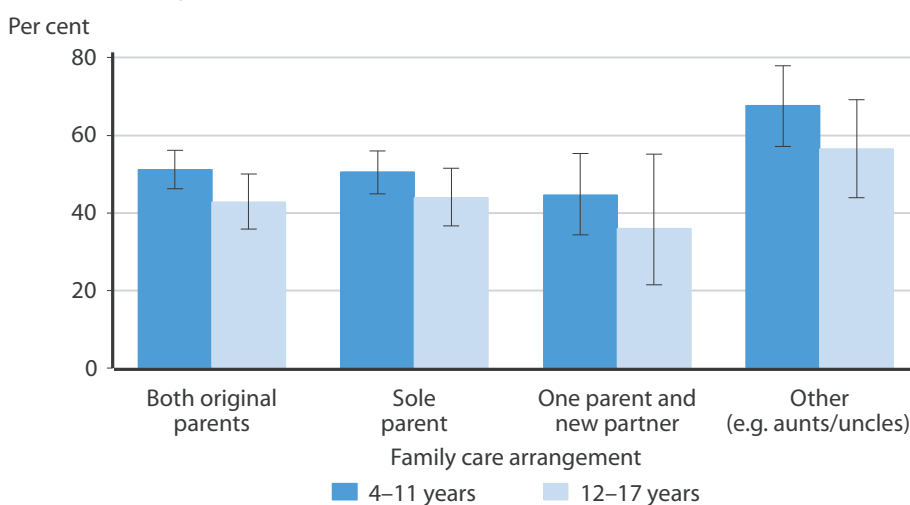
Source: Table 7.42

### Family care arrangement and age group

A high proportion (62.7 per cent; CI: 54.3%–70.0%) of Aboriginal students who were cared for by someone other than an original parent or parents (such as aunts and uncles, or grandparents) had their school work performance rated differently by primary carers and teachers. This proportion is significantly higher than for students cared for by an original parent. For example, of students cared for by both original parents, the proportion was 48.3 per cent (CI: 44.3%–52.3%) and for children cared for by a sole parent, 48.6 per cent (CI: 44.2%–53.1%) (Table 7.43).

Within each type of family care arrangement, the level of teacher/carers discrepancy in rating of the school work performance of 4–11 year-old students was consistently higher than for 12–17 year-old students, although these differences were not statistically significant (Figure 7.21).

**FIGURE 7.21:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY AGE GROUP AND FAMILY CARE ARRANGEMENT



Source: Table 7.43

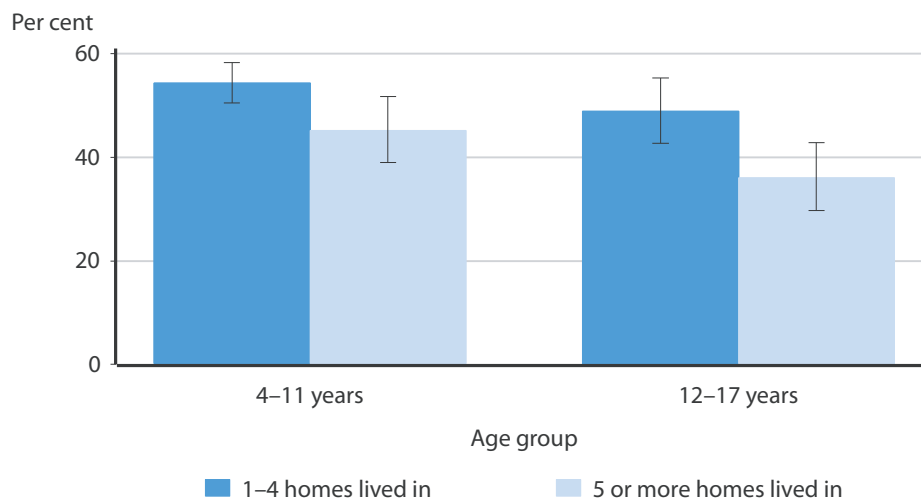


### Number of different homes lived in

Around three in ten Aboriginal students (29.4 per cent; CI: 26.8%–32.1%) aged 4–17 years had lived in five or more homes since birth. Of these students, around three-quarters lived in areas of no or low isolation. They comprised a significantly higher proportion of students living in those areas compared with students living in more isolated areas — 36.5 per cent (CI: 31.5%–41.4%) in the Perth metropolitan area compared with 14.3 per cent (CI: 9.8%–19.6%) in areas of high relative isolation (Table 7.44).

As previously discussed, the proportion of students for whom there was a discrepancy in primary carer and teacher ratings of their school work performance was lowest in areas of no or low isolation and increased as the level of relative isolation increased. With such a high concentration of students in areas of no or low isolation who had lived in five or more homes since birth, the survey found that 41.3 per cent (CI: 36.9%–45.8%) of Aboriginal students who had lived in five or more homes were the subject of discrepancy in primary carer and teacher ratings of their school work performance. This proportion was significantly lower than for students who had lived in up to four homes (52.7 per cent; CI: 49.3%–56.1%) (Table 7.45). This finding was reflected among 4–11 year-olds and 12–17 year-olds, with the level of ratings discrepancy lowest for older students who had lived in five or more homes since birth (36.0 per cent; CI: 29.7%–42.9%) (Figure 7.22).

**FIGURE 7.22:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY AGE GROUP AND NUMBER OF HOMES LIVED IN



Source: Table 7.45

### Household occupancy level

High household occupancy levels (see *Glossary*) are found in the more isolated areas of the state. Compared with the Perth metropolitan area, where 13.9 per cent (CI: 10.1%–18.4%) of students were living in homes with a high occupancy level, 60.1 per cent (CI: 48.6%–71.6%) of students in areas of high isolation and 63.8 per cent (CI: 34.9%–90.1%) in areas of extreme isolation were living in homes with a high occupancy level (Table 7.46).

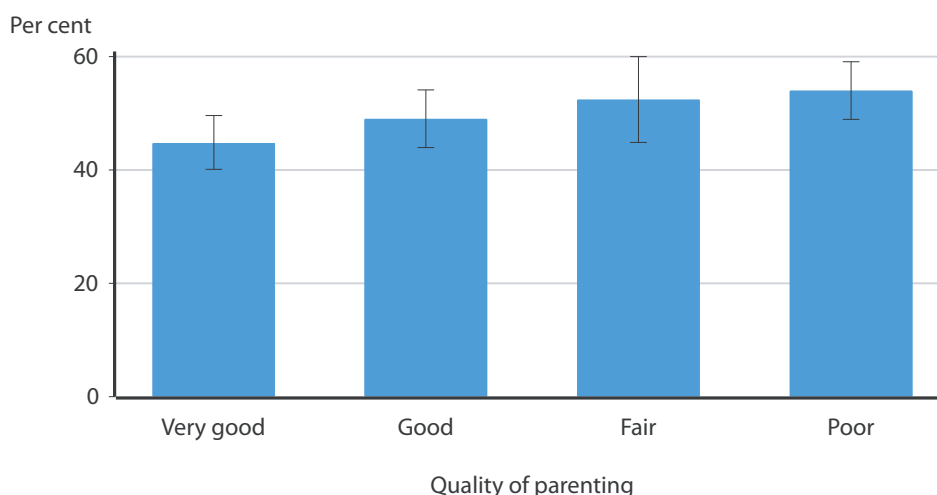


Of Aboriginal students who lived in households where the occupancy level was high, 63.1 per cent (CI: 58.1%–67.8%) were the subject of different ratings of their school work performance by primary carers and teachers. This proportion was significantly above that for students who lived in households where the occupancy level was low (44.4 per cent; CI: 41.4%–47.6%). The association between elevated levels of high household occupancy and discrepancies in primary carer and teacher ratings of school work performance is of particular relevance in areas of high or extreme relative isolation (Table 7.47).

### Quality of parenting

Better quality of parenting (see *Glossary*) by carers of Aboriginal students was associated with closer agreement between primary carers and teachers regarding the student’s school performance. Of students from families with very good quality of parenting, the proportion rated differently was lowest at 44.7 per cent (CI: 40.1%–49.6%), increasing to 54.0 per cent (CI: 49.0%–59.1%) for students from families with poor quality of parenting (Figure 7.23).

**FIGURE 7.23:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY QUALITY OF PARENTING



Source: Table 7.48

### Overuse of alcohol causing problems in the household

For an estimated six in ten (59.0 per cent; CI: 50.5%–67.1%) students from households in which alcohol was reported to cause problems, there was discrepancy in primary carer and teacher ratings of student school work performance, a proportion higher than for students from households where alcohol was not reported to be a problem (47.5 per cent; CI: 44.7%–50.4%) (Table 7.49).



Home ownership

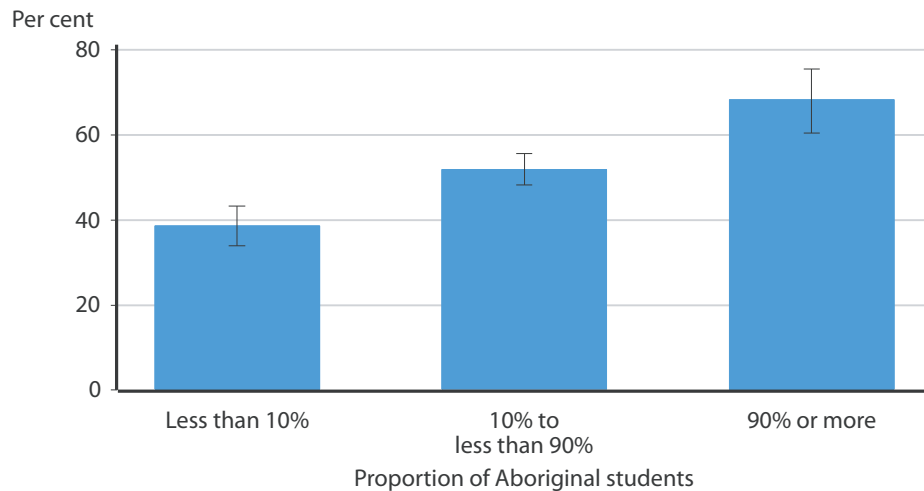
A significantly lower proportion of Aboriginal students from homes which were owned or being paid off (37.8 per cent; CI: 32.6%–43.4%) were the subject of different ratings of their school work performance compared with students living in rented accommodation (52.7 per cent; CI: 49.4%–55.9%) (Table 7.50).

SCHOOL FACTORS

Proportion of students who are Aboriginal

As could be expected, schools where the proportion of Aboriginal students was 90 per cent or more were located in areas of high and extreme relative isolation. Nearly seven in ten students (68.3 per cent; CI: 60.4%–75.6%) attending schools where the proportion was 90 per cent or more were the subject of discrepancy in primary carer and teacher ratings of their school work performance (Figure 7.24). This compares with 38.6 per cent (CI: 34.0%–43.3%) of students attending schools where the proportion was less than 10 per cent — schools attended by the majority of Aboriginal students in the Perth metropolitan area.

**FIGURE 7.24:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY PROPORTION OF STUDENTS WHO ARE ABORIGINAL



Source: Table 7.51

School attendance

In Chapter 4 of this volume, it was found that half of all Aboriginal students (or 9,830 students; CI: 9,200–10,400) had missed at least 26 (CI: 24–28) days of school in a school year. Nearly six in ten (57.6 per cent; CI: 53.9%–61.4%) of these students were considered by teachers to have low academic performance yet rated by their carers as doing OK at school work. In contrast, four in ten (41.1 per cent; CI: 37.4%–44.9%) students who were absent from school for less than 26 days had their school work performance rated differently (Table 7.52).



## Unexplained absence

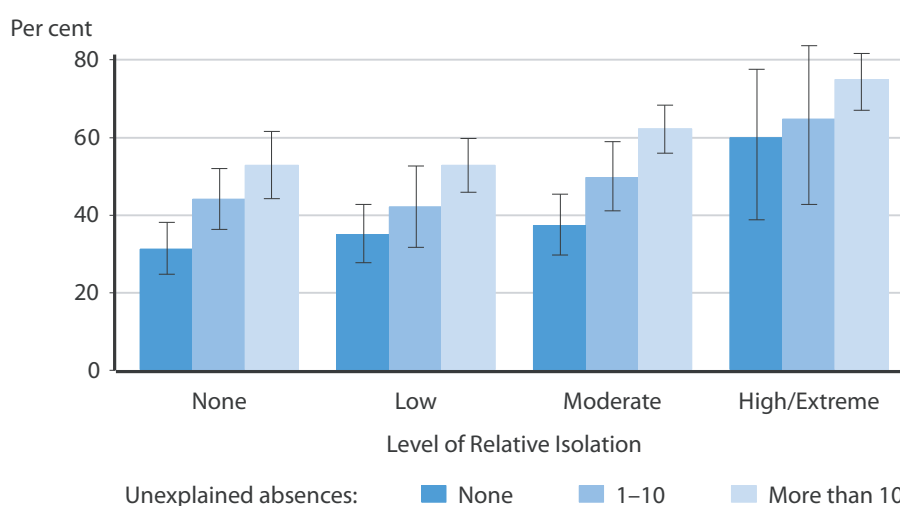
Principals were asked how many of their students' absences from school were explained satisfactorily, how many were explained questionably and how many were unexplained (truancy). As discussed in Chapter 4 of this volume, the number of days of unexplained absence has been grouped as 'none', '1–10' and 'more than 10'. Almost half of all Aboriginal students (47.6 per cent; CI: 44.5%–50.6%) had more than 10 unexplained absences from school in the surveyed school year, the highest proportion being for students in Years 8–10 and the lowest proportion for students in Years 11–12. The highest proportions of unexplained absence were in areas of moderate or high relative isolation.

For an estimated six in ten (59.5 per cent; CI: 55.6%–63.3%) students with more than 10 unexplained absences, primary carers and teachers differed in their ratings of school work performance. This proportion was significantly higher than for students who did not have any unexplained absences (36.9 per cent; CI: 32.1%–41.7%).

Among 4–11 year-old and 12–17 year-old students, the level of discrepancy between primary carer and teacher ratings was similar for both no unexplained absences and 1–10 unexplained absences. For students with more than 10 unexplained absences, the proportion of 12–17 year-olds who were the subject of differing ratings (50.8 per cent; CI: 43.9%–57.4%) was significantly lower than the proportion of 4–11 year-olds (64.3 per cent; CI: 59.6%–68.7%) (Table 7.53).

In areas of no, low or moderate relative isolation, the proportion of students for whom there was a discrepancy in primary carer and teacher ratings of their school performance differed significantly between no unexplained absence and more than 10 unexplained absences. In areas of high/extreme relative isolation, the proportion of students subject to differing ratings within each level of unexplained absence trended higher than in less isolated areas (Figure 7.25).

**FIGURE 7.25:** STUDENTS AGED 4–17 YEARS — PROPORTION FOR WHOM THERE WAS A DISCREPANCY IN PRIMARY CARER AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE, BY LEVEL OF RELATIVE ISOLATION AND UNEXPLAINED ABSENCE



Source: Table 7.54





## OTHER FACTORS NOT FOUND TO BE ASSOCIATED WITH DISCREPANCIES IN PRIMARY CARER AND TEACHER RATINGS OF THE STUDENT'S ACADEMIC PERFORMANCE

The following student, primary carer, family and school factors were analysed and found not to be significantly associated with discrepancies in primary carer/teacher ratings of student school work performance:

- ◆ for 4–11 year-olds, whether the child had ever been in day care
- ◆ the primary carer's age
- ◆ whether the primary carer is the birth mother of the child
- ◆ the physical health of the primary carer
- ◆ the mental health of the primary carer
- ◆ whether the primary carer was forcibly separated from their natural family by a mission, the government or welfare — **although this variable was found to be a significant predictor in its own right when modelled with other factors**
- ◆ whether the primary carer had ever been arrested or charged with an offence
- ◆ level of family functioning (the extent to which families have established a climate of cooperation, emotional support and good communication)
- ◆ number of life stress events (such as illness, family break-up, arrests, hospitalisation or death of a close family member, job loss and financial difficulties)
- ◆ whether the primary carer and their partner show signs they care for each other
- ◆ whether the primary carer and their partner argue or quarrel
- ◆ gambling causing problems in the household
- ◆ family financial strain
- ◆ category of school — **although this variable was found to be a significant predictor in its own right when modelled with other factors**
- ◆ whether the school has an Aboriginal Student Support and Parent Awareness (ASSPA) Committee
- ◆ the adequacy of Aboriginal parents' involvement in school activities and their children's learning
- ◆ whether the student has ever repeated a year or grade in their current school.

## MODELLING ASSOCIATIONS BETWEEN STUDENT, CARER, FAMILY AND SCHOOL FACTORS AND DISCREPANCIES IN PRIMARY CARER AND TEACHER RATINGS OF THE CHILD'S ACADEMIC PERFORMANCE

Multivariate logistic regression modelling (see *Glossary*) was used to investigate the association between various student, carer, family and school factors and discrepancies in primary carer and teacher ratings of the student's school work performance. After adjusting for the student's sex and age, for LORI and for the category of school attended, eleven factors were independently associated with differing primary carer and teacher ratings (Table 7.55).



Of those factors analysed and found not to be significantly associated with discrepancies in primary carer/teacher ratings of student school work performance, two — whether the primary carer was forcibly separated from their natural family; and the category of school attended by the student — were found to be significant predictors in their own right when modelled with other factors.

Of particular interest is the finding that Level of Relative Isolation is not a significant predictor of primary carers and teachers differing in their rating of student academic performance. However, this does not mean that LORI is not associated with discrepancies in primary carer and teacher ratings. For example, it is known from Volume One<sup>15</sup> that LORI is strongly associated with the education level of the primary carer — significantly higher proportions of carers in extremely isolated areas leave school before completing Year 10 compared with carers in areas of none or low isolation. It is also known from Chapter 4 in this current volume that LORI is strongly associated with unexplained absence from school — the proportion of students with 11 or more unexplained absences is significantly higher in areas of moderate or high isolation compared with areas of no or low isolation. When all three variables are included in the statistical model, ‘primary carer level of education’ and ‘unexplained absence’ are shown to be the most significant predictors of whether primary carers and teachers differed in their ratings of student academic performance. With increasing isolation, there are lower levels of primary carer education and higher levels of unexplained absence and it is these factors which primarily lead to elevated levels of discrepancy between primary carer and teacher ratings.

The eleven factors predictive of students being rated by primary carers as doing OK at school work yet rated by their teachers as having low academic performance are:

**Sex.** Where the student was male, primary carers were one and a half times as likely (Odds Ratio 1.57; CI: 1.27–1.95) to differ from teachers in rating their school work performance than they were rating female students.

**Age.** Where the student was aged 15–17 years, primary carers were almost two times less likely (Odds Ratio 0.56; CI: 0.37–0.86) to differ from teachers than where the student was aged 4–7 years.

**Category of school.** The primary carers of Aboriginal students who attended Catholic or Independent schools were almost twice as likely (Odds Ratio 1.81; CI: 1.31–2.52) to differ from teachers in their assessment of student school work performance than primary carers of students attending Government schools.

**Whether primary carers and teachers rated the student as being at high risk of clinically significant emotional or behavioural difficulties.** Students who were assessed only by their teacher as being at high risk of clinically significant emotional or behavioural difficulties were over one and a half times as likely (Odds Ratio 1.76; CI: 1.02–3.06) to have their school work performance rated differently than students assessed by both the primary carer and teacher as being at high risk.

**Primary carer level of education.** Students whose primary carers had attained higher levels of education (i.e. completed 13 or more years of schooling) were almost two times less likely (Odds Ratio 0.52; CI: 0.32–0.85) to be rated differently than students whose primary carers had left school after Year 10.

**Primary carer labour force status.** Students whose primary carers were employed were one and a third times less likely (Odds Ratio 0.75; CI: 0.59–0.96) to have their academic performance rated differently than students whose carers were not in the labour force.



**Whether the primary carer was forcibly separated from their natural family.** Students of primary carers who had been forcibly separated from their natural family were one and a half times as likely (Odds Ratio 1.53; CI: 1.06–2.21) to have their academic performance rated differently than students whose carers who had not been forcibly separated.

**Whether the primary carer speaks an Aboriginal language.** Students of primary carers who were conversant in an Aboriginal language were almost twice as likely (Odds Ratio 1.84; CI: 1.25–2.70) to have their academic performance rated differently than students whose carers who did not speak an Aboriginal language.

**The importance of religion/spiritual beliefs to the primary carer.** Students whose primary carers reported that religion/spiritual beliefs were ‘very much’ important in their lives were almost one and a half times as likely (Odds Ratio 1.41; CI: 1.00–1.99) to have their academic performance rated differently than students whose primary carers reported that religion/spiritual beliefs were ‘not at all’ important.

**Household occupancy level.** Students of primary carers living in homes with a high level of household occupancy were one and a third times as likely (Odds Ratio 1.34; CI: 1.02–1.76) to have their academic performance rated differently than students of carers from homes with a low level of household occupancy.

**Unexplained absence.** As the number of unexplained absences increased, primary carers were more likely to differ from teachers in rating the child’s school work performance. Primary carers of students who had 1–10 unexplained absences were one and a half times as likely (Odds Ratio 1.53; CI: 1.12–2.08) to differ from teachers than carers of students who had no unexplained absence; while carers of students who had 11 or more unexplained absences were twice as likely (Odds Ratio 2.10; CI: 1.63–2.71) to differ.

## THE CAPACITY OF PRIMARY CARERS TO HELP IMPROVE THE SCHOOL PERFORMANCE OF THEIR CHILDREN

The emphasis of this chapter has been on: examining how well primary carers of Aboriginal students interact with the school and how they perceive their children to be performing at school work; and helping inform strategies aimed at enhancing the effective involvement of carers in improving the future education outcomes of Aboriginal students. On the surface, the overwhelmingly positive levels of carer satisfaction with their children’s schools and their children’s academic performance would seem a very positive finding. However, when considered in conjunction with the findings of previous chapters detailing the disturbingly low levels of teacher-rated academic performance of Aboriginal children, these results highlight the degree to which carers of Aboriginal children are alienated from all aspects of their children’s schooling. What has been found in the WAACHS data is a worrying legacy of the effect that diminished human capital and social capital resources among Aboriginal families are having on the ability of carers to be an effective force in helping to raise the education standards of their children.

*Continued . . . .*



## THE CAPACITY OF PRIMARY CARERS TO HELP IMPROVE THE SCHOOL PERFORMANCE OF THEIR CHILDREN *(continued)*

### Human capital and its effects

Diminished stocks of human capital are evident in the high levels of socioeconomic disadvantage within Aboriginal families as measured by carer education, employment, occupational skill level and income.<sup>15</sup> These diminished resources with their lowered capability have played a part in shaping the knowledge, attitudes and behaviours of today's Aboriginal carers toward the value of a good education. While many carers in the survey acknowledged the importance of formal education for themselves and their children, the circumstances of their own schooling have left many with a limited education and a lack of access to employment and income. As a consequence, these carers have been deprived of the significant benefits to be derived from human capital building, including increased knowledge and the use of income to improve the material circumstances relevant to their children's development (particularly language and cognitive development).

The survey found that the level of education of the primary carer and the employment status of the carer were both significant predictors of the likelihood that carers and teachers will differ in their views on the academic performance of the children. Carers with low levels of education or those who were not in the labour force were most likely to rate their child's academic performance differently from teachers.

These findings need to be interpreted in the light of past history. In past generations Aboriginal people's access to education and employment opportunities was significantly restricted. As a result, many of the carers of Aboriginal children have had negative experiences of schooling. These experiences may impact on the message their children receive at home about the value of formal education. These alienating experiences, in turn, leave carers feeling ill-equipped to help with their own child's education. This raises the question of how do you account for a past history of marginalisation and exclusion in order to prevent the inter-generational transfer of disadvantage?

A major benefit of education for most children is in their future prospects of gainful employment. Past discrimination in employment and lack of job opportunities for Aboriginal people have been a historical disincentive for Aboriginal people not to participate in education. The question needs to be raised as to whether, even today, Aboriginal children have fair prospects of obtaining gainful employment if they do well in school? Building faith by Aboriginal people in the value of the school system is contingent upon there being meaningful job opportunities for those who do well in school and want to participate in the work force.

Teachers and principals mainly interact with children and may have limited access to their carers. Children, of course, attend school for part of the day, but their education is strongly shaped by family circumstances. How can schools engage parents and provide opportunities for carers themselves to participate in and benefit from education?

*Continued . . .*



## THE CAPACITY OF PRIMARY CARERS TO HELP IMPROVE THE SCHOOL PERFORMANCE OF THEIR CHILDREN *(continued)*

### Social capital and its effects

Aboriginal carers have also had to deal with the difficult life experience of co-existing in two worlds — one rich in history, culture, beliefs, language, rites and traditions; the other seeking to become the dominant culture by imposing its own standards, language and way of life. This situation, unless given strong recognition, threatens to undermine the ability of Aboriginal peoples to maintain the integrity of their social structures and, indeed, their cultural integrity — a critical component of the stocks of social capital available to them.

There is a marked dichotomy between the traditional passing of skills and history down through the generations and the skills that are valued in western education. Aboriginal carers need to feel confident that the gaining of newfound skills and experiences from formal schooling will not be to the detriment of acquiring knowledge about Aboriginal history, land, culture, and spirituality and traditional ways of living which constitute a vital part of Aboriginal life and learning.

One consequence of the early period of colonisation was the forced separation of Aboriginal people from their families as a result of official government policies and actions. Primary carers who had been subject to the negative effects of forced separation from their natural families were found to be significantly more likely to differ from teachers in assessing the academic performance of their children. While the survey did not collect information on the settings that children who were forcibly separated were placed into, it has been well documented<sup>19</sup> that many of the children brought up in institutional environments were provided with an education that was little more than preparation for domestic or manual labour. Carers with this type of educational experience may be more divorced from the educational experiences of their children.

Fluency in an Aboriginal language and strong emphasis on spiritual beliefs were characteristics also found to be significant predictors of the likelihood that carers differed from teachers when rating the academic performance of their children. This may, in part, stem from the introduction of education systems that did not adequately recognise or acknowledge Aboriginal culture and language. For carers strongly steeped in culture and language, the effect may have been to leave them with a feeling of alienation towards the school and a school experience far removed from the experiences of their everyday lives.

*Continued . . . .*



## THE CAPACITY OF PRIMARY CARERS TO HELP IMPROVE THE SCHOOL PERFORMANCE OF THEIR CHILDREN *(continued)*

### Where to from here?

Substantial actions are currently being undertaken by state and federal education authorities to implement projects and programmes aimed at addressing and redressing the disturbingly low levels of academic performance of Aboriginal children. Encouragingly, there is acceptance of the inability of past education programmes and practices to achieve satisfactory education outcomes for Aboriginal people. This now presents a watershed opportunity to initiate significant change in education policy and practice that will improve education outcomes and job opportunities for current and future generations of Aboriginal people. There is an imperative to implement initiatives, particularly as their implementation requires significant generational change, and a more competitive labour market is requiring higher educational standards and greater skills.

The following are observations from the WAACHS findings that have particular relevance to formulation of current and future education policy and programmes:

- ◆ Most successful programmes that involve parents and communities in schools have only been isolated examples in individual schools. There have been no real examples of programmes that have been successfully implemented across schools in general. There is substantial opportunity to develop resources from the ideas of successful local programmes that can be used and adapted in schools across the state
- ◆ Schools successfully engaging with parents and communities may require action outside of the normal scope of school activities, particularly in regard to addressing issues such as parents' own negative experiences of school, and lack of employment opportunities that flow from education
- ◆ Education and learning cannot be a one-way process. Effective relationships must be built between Aboriginal communities and their schools. Active support and encouragement from home will help this process
- ◆ Parents can become involved with school learning through the active passing on of language skills and cultural knowledge and heritage in the classroom
- ◆ Schools may be able to offer educational opportunities to adults as well as to children that can enhance employment prospects and promote the value of education
- ◆ To overcome the lingering perception of discrimination in employment opportunities, schools may be able to work in conjunction with local businesses and employers to create work experience programmes and to provide reasonable prospects of employment to children who successfully complete their schooling.



## ENDNOTES

1. Bennett E. *Connecting families to schools: Why parents and community engagement improves school and student performance*. New York: The National Center for Schools and Communities, Fordham University; 2004.
2. Lareau A. Social class differences in family-school relationships: The importance of cultural capital. *Sociology of Education* 1987;60:73–85.
3. Reynolds AJ. Comparing measures of parental involvement and their effects on academic achievement. *Early Childhood Research Quarterly* 1992;7:441–62.
4. Luster T, McAdoo H. Family and child influences on educational attainment: A secondary analysis of the High/Scope Perry preschool data. *Developmental Psychology* 1996;32:26–39.
5. Connell RW, Ashenden D, Kessler S, Dowsett G. *Making the difference: Schools, families and social division*. Sydney: Allen and Unwin; 1982.
6. Lareau A, Shumar W. The problem of individualism in family-school policies. *Sociology of Education* 1996;69. Special Issue on Sociology and Educational Policy: Bringing Scholarship and Practice Together;24–39.
7. Lareau A, McNamara Horvat E. Moments of social inclusion and exclusion: Race, class, and culture capital in family-school relationships. *Sociology of Education* 1999;72:37–53.
8. Hoover-Dempsey KV, Sandler HM. Why do parents become involved in their children's education? *Review of Educational Research* 1997;67:3–42.
9. Sarra C. *Young and black and deadly: Strategies for improving outcomes for Indigenous students*. Canberra: Australian College of Educators Quality Teaching Series (Paper Number 5); 2003.
10. Northern Territory Department of Education. *Learning lessons: An independent review of Indigenous education in the Northern Territory*. Darwin: Northern Territory Department of Education; 1999.
11. Benseman J. "I'm a different person now". *An evaluation of the Manukau Family Literacy Programme (MFLP)*. Wellington. New Zealand Ministry of Education; 2004.
12. Australian Bureau of Statistics. *National Aboriginal and Torres Strait Islander Survey 1994 detailed findings*. Canberra: Australian Bureau of statistics (Catalogue 4190.0); 1995.
13. Schwab RG. Indigenous participation in schooling: A preliminary assessment of the NATSIS findings. In: Altman JC, Taylor J, Editors. *The 1994 National Aboriginal and Torres Strait Islander Survey: Findings and future prospects*. Canberra: Centre for Aboriginal Economic Policy Research, The Australian National University; 1996.
14. Schwab RG. *Why Only One in Three? The Complex Reasons for Low Indigenous School Retention*. Canberra: Centre for Aboriginal Economic Policy Research, The Australian National University; 1999.
15. Zubrick SR, Lawrence DM, Silburn SR, Blair E, Milroy H, Wilkes E, Eades S, D'Antoine H, Read A, Ishiguchi P, Doyle S. *The Western Australian Aboriginal Child Health Survey: The health of Aboriginal children and young people*. Perth: Telethon Institute for Child Health Research; 2004.
16. Western Australian Department of Education and Training. *Walk Right In: You can make a difference*. Perth: Department of Education and Training; 2005.
17. Zubrick SR, Silburn SR, Gurrin L, Teoh H, Shepherd C, Carlton J, Lawrence D. *Western Australian Child Health Survey: Education, Health and Competence*. Perth: Australian Bureau of Statistics and the TVW Telethon Institute for Child Health Research; 1997.
18. Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, De Maio JA, Cox A, Li J. *The Western Australian Aboriginal Child Health Survey: The Social and Emotional Wellbeing of Aboriginal Children and Young People*. Perth: Curtin University of Technology and Telethon Institute for Child Health Research; 2005.
19. Human Rights and Equal Opportunities Commission. *Bringing Them Home: Report of the national inquiry into the separation of Aboriginal and Torres Strait Islander children from their families*. Canberra: HREOC; 1997.



# Chapter 8

## SCHOOL, HEALTH AND YOUNG PEOPLE

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## Chapter 8

### SCHOOL, HEALTH AND YOUNG PEOPLE

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*The age range 12 to 17 years generally coincides with attendance at high school and the maturation of children through adolescence and into early adulthood. For most young people, attending school regularly and achieving well academically throughout these years can provide a strong educational base, which in turn can expand the life choices and opportunities available to them. This chapter identifies factors associated with academic performance, attendance at school and retention in education of Aboriginal young people in Western Australia.*

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#### SUMMARY

WAACHS findings show that, for Aboriginal young people, there is a surprising lack of association between academic performance and many of the factors describing their current life circumstances. Combined with findings from previous chapters showing the early age at which many Aboriginal children fall behind at school, this suggests that patterns of poor school attendance and low academic performance are set during the primary school years.

Based on data from those students aged 12–17 years who also completed a youth self report form, the following findings were made in respect of overall academic performance:

- ◆ Risk of clinically significant emotional or behavioural difficulties was associated with overall academic performance. Students aged 12–17 years at either moderate or high risk of clinically significant emotional or behavioural difficulties were over 3 times as likely to have low academic performance as students at low risk.
- ◆ Students in areas of high and extreme relative isolation were over twice as likely to have low academic performance.
- ◆ Students absent for 26 days or more of the school year were almost twice as likely to have low academic performance as students with more regular attendance.
- ◆ Students who have a primary carer who has never been in paid work were twice as likely to have low academic performance.
- ◆ Students whose primary carer is Aboriginal were over one and a half times as likely to have low academic performance.
- ◆ Self-esteem of students aged 12–17 years was not associated with overall academic performance.

In respect of school attendance the following findings were made:

- ◆ Students at either moderate or high risk of clinically significant emotional or behavioural difficulties were more likely to have below median attendance than students at low risk.
- ◆ Students living outside of the Perth metropolitan area were more likely to have below median attendance than students in Perth.
- ◆ Self-esteem of students aged 12–17 years was not associated with attendance at school.



**SUMMARY** *(continued)*

- ◆ Students who have ever had sex were over two and a half times as likely to have below median attendance as students who have never had sex.

The vast majority of Aboriginal young people aged under 15 years were still in school. From age 15 years and older, the proportion of Aboriginal young people who no longer attend school was substantially higher, reducing the chances of academic and vocational success beyond the school years.

Based on data for all young people aged 15–17 years for whom a child health questionnaire was completed by their primary carer, the following findings were made in respect of retention in school and education:

- ◆ About 47 per cent of all 15–17 year-olds were no longer going to school.
- ◆ Some 56 per cent of all 15–17 year-olds were still in some form of education.
- ◆ Around 12 per cent of all 15–17 year-olds were working.
- ◆ About 32 per cent of all 15–17 year-olds were neither working nor in any form of education.
- ◆ Young people living in areas of low, high and extreme relative isolation were over twice as likely to no longer be at school.
- ◆ Young people who had drunk alcohol or gotten drunk in the six months prior to the survey were over twice as likely to no longer be at school.
- ◆ Young people who live in households where overuse of alcohol causes problems were over twice as likely to no longer be at school.



## INTRODUCTION

Young people aged 12–17 years were asked to independently complete a Youth Self-Report (YSR) questionnaire as part of the WAACHS household survey component. For those young people who completed a YSR and for whom a teacher report was also completed, key academic outcomes have been analysed by a series of demographic and health risk factors.

For all young people who completed a YSR questionnaire, analyses were undertaken to investigate the differences in demographic and health risk factors between those young people still going to school and those no longer attending school.

Finally, a similar analysis was conducted using carer reported data on young people aged 12–17 years from both the Child Health Questionnaire (CHQ) and the primary carer's own questionnaire, looking at the differences between those young people still going to school and those no longer attending.

For more information on the various survey populations used for analysis in this chapter see *Appendix D — Levels of school and student participation*.

### PARTICIPATION IN THE YOUTH SELF REPORT

#### Administering the Youth Self Report

The YSR was developed specifically for 12–17 year-olds and interviewer assistance was available for those young people who required help completing it. Of the 1,480 young people aged 12–17 years in the survey sample, 1,073 (72.5 per cent) completed a YSR questionnaire, 19 per cent of whom received the help of an interviewer. Due to the sensitive nature of some questions, it is possible that the presence of an interviewer may have had some impact on the responses but this could not be measured.

#### The effects of YSR non-response

Over one quarter of 12–17 year-olds in the survey did not complete the YSR. For many of the non-responding young people, some information was available on the CHQ as reported by the primary carer. Thus it was possible to compare characteristics of respondents and non-respondents to the YSR, by information collected from their carers. Carer reports for 12–17 year-olds were based on 1,399 responses to the CHQ (94.5 per cent of young people in the survey sample). As this represents a much higher proportion of young people than are represented by responses to the YSR, it is beneficial to analyse outcomes for both sets of data where variables are shared. Where variables are not shared, analyses involving young people are undertaken using the data set containing the variable of interest.

Young people responding to the YSR were more likely to be aged 13–15 years and to be living in the Perth metropolitan area, while non-respondents were more likely to live in census collection districts classified to the bottom 5 per cent of socioeconomic disadvantage, to have had contact with police, juvenile justice or

*Continued . . . .*



### PARTICIPATION IN THE YOUTH SELF REPORT *(continued)*

courts, or to be at high risk of clinically significant emotional or behavioural difficulties (see *Appendix D* of Volume Two — *Levels of family and youth participation*).<sup>1</sup>

In order to generalise observations to the entire population of Western Australian Aboriginal young people, those responding to the survey were weighted by sex, age and Level of Relative Isolation to represent the entire population (see *Appendix B* of Volume One — *Sample design*).<sup>2</sup> This weighting procedure accounted for the different response rates by sex, age and LORI. However, the distribution of other variables, such as the risk of clinically significant emotional or behavioural difficulties, could not be taken into account in the weighting procedure. This must be borne in mind when interpreting results based on the YSR and when comparing them with results based on carer reports as reported in other chapters in this volume.

## YOUNG PEOPLE CURRENTLY AT SCHOOL

There were an estimated 9,100 Aboriginal young people aged 12–17 years in Western Australia in 2001, of which 6,730 were estimated to be attending school (CI: 6,450–6,990). Youth self-reported data was received for 5,220 of these students (CI: 4,740–5,710) (Tables 8.1 and 8.2). This is the group of students analysed in the following sections covering overall academic performance and attendance at school (see *Appendix D*).

### OVERALL ACADEMIC PERFORMANCE

#### Overall academic performance by risk of clinically significant emotional or behavioural difficulties

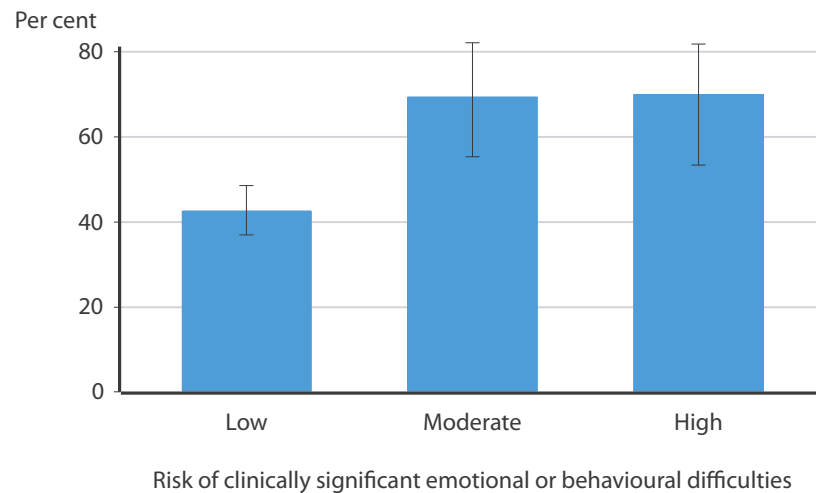
In order to measure students' risk of clinically significant emotional or behavioural difficulties, teachers completed the Strengths and Difficulties Questionnaire (SDQ) for survey children. They also completed a rating of each student's overall academic performance (see *Chapter 5*). The SDQ comprises twenty-five questions probing five areas of psychological adjustment in children. Based on teacher responses to the SDQ items, a Strengths and Difficulties Total Score that can range from 0–40 was calculated. The risk of clinically significant emotional or behavioural difficulties was then assessed with reference to the SDQ total score. Thus students with a score of 0–11 were identified as having *low risk*, those in the range 12–15 as having *moderate risk*, and those in the range 16–40 as having *high risk* of clinically significant emotional or behavioural difficulties. See *Strengths and Difficulties Questionnaire* in the *Glossary* for further details of the SDQ.

Students at moderate or high risk of clinically significant emotional or behavioural difficulties were significantly more likely to have low academic performance. Of those 12–17 year-old students at high risk of clinically significant emotional or behavioural difficulties, 69.9 per cent (CI: 53.4%–81.8%) had low academic performance. This compares with 42.5 per cent (CI: 36.9%–48.5%) of students at low risk who had low academic performance (Figure 8.1).



Factors found to be associated with risk of clinically significant emotional or behavioural difficulties were discussed in detail in *Volume Two — The Social and Emotional Wellbeing of Aboriginal Children and Young People*.<sup>1</sup> The main findings have been summarised in Chapter 5 of this volume in the commentary box entitled *Factors associated with emotional and behavioural difficulties*.

**FIGURE 8.1:** STUDENTS AGED 12–17 YEARS WHO COMPLETED A YSR FORM — PROPORTION WITH LOW ACADEMIC PERFORMANCE, BY RISK OF CLINICALLY SIGNIFICANT EMOTIONAL OR BEHAVIOURAL DIFFICULTIES



Source: Table 8.2

## INDIGENOUS AEROSPACE INITIATIVE

The Indigenous Aerospace Initiative (IAI) commenced in 2005 to provide opportunities for Aboriginal students to undertake initial pilot training and enter the Australian aviation industry. The programme is designed to increase participation by Aboriginal students in the aviation industry, which has a growing demand for Aboriginal pilots.

The IAI is an aspirational programme intended to increase the achievement of Aboriginal students, not only among programme participants but also through their impact as role models for other students. It is anticipated that retention rates for Aboriginal students and the performance of Aboriginal students who meet Year 12 graduation or equivalent will be improved.

The initial trial programme commenced at Swan TAFE, Midland, on 18 July 2005 with the enrolment of three students. The programme is solely funded by the Western Australian Department of Education and Training.

Swan TAFE's College of Aviation has internationally recognised pilot training capabilities and was contracted to deliver the inaugural programme. Theoretical training to meet Civil Aviation Safety Authority (CASA) syllabus requirements is provided by lecturers in Transport, Aviation and Logistics at Swan TAFE and flying training is supplied by a private flying school and air charter company.

*Continued . . . .*



**INDIGENOUS AEROSPACE INITIATIVE** (continued)

A reference group comprising three representatives each from Swan TAFE and the Department of Education and Training meet monthly to monitor and evaluate the current programme, plan the second intake of students in 2006 and further develop the initiative, including areas of possible collaboration with private sector participants.

On completion of the programme, students will graduate from Swan TAFE with a Diploma in Aeronautics, will hold a Commercial Pilot Licence, will have completed theory examinations toward the CASA Air Transport Pilot Licence qualification and hold other industry certificates. The programme may subsequently expand to up to 20 student pilots each year with an Australia-wide intake.<sup>3</sup>

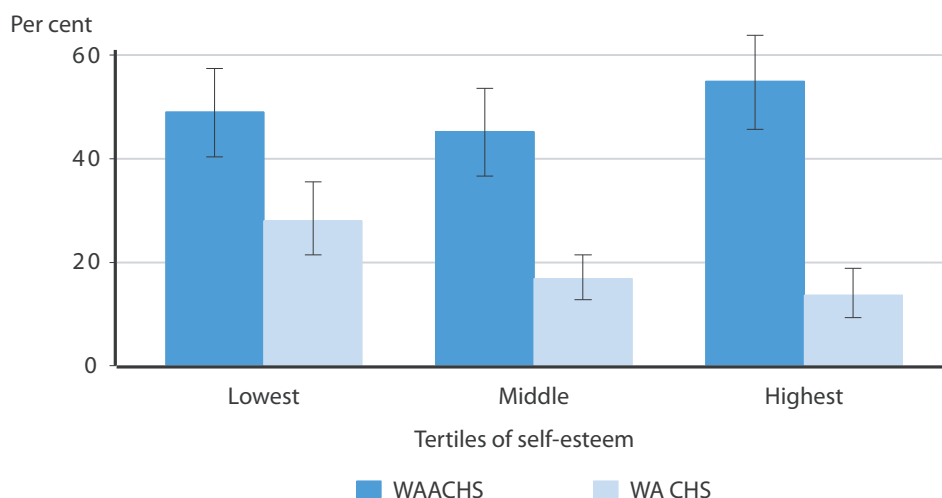
**Academic performance and self-esteem**

Past research has shown that school performance and self-esteem are positively related. For example, the 1993 *Western Australian Child Health Survey* (WA CHS) found that among non-Aboriginal students there was a clear association between low academic competence and low self-esteem. In the WA CHS, 28 per cent (CI: 21.5%–35.6%) of 12–16 year-olds with self-esteem scores in the lowest third also had low academic competence, while this was true for only 13.7 per cent (CI: 9.3%–18.9%) of those with high self-esteem.<sup>4</sup>

In contrast, for Aboriginal young people in the WAACHS, no association was found between teacher-reported academic performance and student self-esteem (Figure 8.2).

The WA CHS measure for academic performance was identical to that used by the WAACHS, but the self-esteem measure was different. See commentary box entitled *Self-esteem* in this chapter for more information.

**FIGURE 8.2:** STUDENTS AGED 12–17 YEARS WHO COMPLETED A YSR FORM — PROPORTION WITH LOW ACADEMIC PERFORMANCE, BY SELF-ESTEEM, WAACHS COMPARED WITH WA CHS



Source: Table 8.3 & 1993 Western Australian Child Health Survey



## SELF-ESTEEM

Self-esteem refers to a favourable or unfavourable attitude towards the self and has been variously understood to include an internalised self-image and feelings of self-worth.<sup>4,5</sup>

Six items specifically designed for the WAACHS were used to measure self-esteem in young people participating in the survey (see *Appendix C* of Volume Two — *Measures derived from multiple responses and scales*).<sup>1</sup> In this chapter there are comparisons made with self-esteem among non-Aboriginal children from the 1993 WA CHS, which is based on a different self-esteem measure.<sup>6</sup> Self-esteem in the WA CHS was derived from Marsh's Self-Description Questionnaire which uses a 32-item instrument.<sup>7</sup>

There are several reasons why doing well in school and feeling good about oneself might not show any association. Firstly, minority status (or stigma), identity and cultural differences in self-concept may all play a role in modifying levels of individual self-esteem.<sup>8</sup> Thus, there are theoretical and practical mechanisms that could link levels of self-esteem to experienced stigma (e.g. racism), the development of racial identity, and expectations about individual versus collective behaviour.

Secondly, extensive reviews support a general conclusion that self-esteem is culturally constructed.<sup>9</sup> Thus, the extent to which cultural groups value collectivism as opposed to individualism is likely to produce differences in personal self-concept and personal self-esteem.<sup>10</sup> Aboriginal culture, for example, places considerable value on family and community obligations where individuals are members of groups, bands and communities. These social structures bring with them specific obligations on the part of individuals to others.

Thirdly, longitudinal studies employing statistical techniques of causal modelling show little evidence that improvements in self-esteem result in better educational outcomes.<sup>11</sup> Instead, these studies generally support the 'achievement' model of self-esteem which suggests that self-esteem is more of an outcome than a cause of academic and/or other success.<sup>12</sup>

Given the low academic performance of Aboriginal children from the early primary school years onwards, it is hardly surprising that self-esteem and school performance show no association. Experiences of self-esteem are not likely to be based in the experience of school and are more likely to lie elsewhere.





## Factors associated with low academic performance – Modelled outcomes for students aged 12–17 years

Multivariate logistic regression modelling (see *Glossary*) was undertaken to examine the association between demographic and youth risk factors and low academic performance (Table 8.4). Independently of all other variables in the model it was found that the following factors were associated with low academic performance:

**Sex.** Male students were 1.84 times (CI: 1.48–2.29) as likely to have low academic performance as female students.

**Age.** Young people still at school aged 15–17 years were 35 per cent less likely (Odds Ratio 0.65; CI: 0.43–1.00) to have low academic performance relative to those aged 12–14 years.

**Level of Relative Isolation (LORI).** Students living in more isolated areas were performing less well relative to those living in the Perth metropolitan area. Young people living in areas of high relative isolation were twice as likely (Odds Ratio 2.07; CI: 1.23–3.48) to have low academic performance, and young people in areas of extreme isolation were almost three times more likely (Odds Ratio 2.95; CI: 1.61–5.42) to have low academic performance than those young people living in the Perth metropolitan area.

**Below median school attendance.** Young people absent from school for 26 days or more in the school year were 1.68 times (CI: 1.34–2.12) more likely to have low academic performance than students absent less than 26 days in the school year.

**Teacher reported risk of clinically significant emotional or behavioural difficulties.** Students at moderate risk were 3.46 times (CI: 2.45–4.87) more likely and students at high risk were 3.35 times (CI: 2.37–4.74) more likely to have low academic performance compared with those at low risk.

**Aboriginal status of the primary carer.** As described in Volume One,<sup>2</sup> almost all non-Aboriginal primary carers are actually the natural birth mothers of the Aboriginal children in their care. Students with an Aboriginal primary carer were 1.69 times (CI: 1.26–2.28) more likely to have low academic performance relative to students whose primary carer identified as non-Aboriginal.

**Whether the primary carer had ever been in paid work.** Students whose primary carer had never worked in a job where they got paid were almost twice as likely (Odds Ratio 1.97; CI: 1.35–2.86) to have low academic performance relative to students whose primary carer had worked in paid employment.

Factors that were not independently associated with low academic performance among young people aged 12–17 years included:

- ◆ self-esteem
- ◆ racism and bullying
- ◆ religion and spirituality
- ◆ whether the student had been in a physical fight in the past six months
- ◆ whether the student had been in a family violence situation
- ◆ educational encouragement from parents
- ◆ regular marijuana use



- ◆ whether the student had ever had sex
- ◆ student reported alcohol problems in the house
- ◆ student reported parental drug use
- ◆ having someone to yarn to if the student has a problem
- ◆ having a special friend or mate
- ◆ primary carer's educational attainment
- ◆ primary carer's current employment status
- ◆ whether the primary carer was forcibly separated from their natural family by a mission, the government or welfare
- ◆ whether the primary carer suffers from a long term limiting health condition
- ◆ family financial strain
- ◆ family functioning
- ◆ number of life stress events occurring in the past 12 months
- ◆ quality of parenting
- ◆ whether the student had undertaken strenuous exercise in the past seven days.



## FOLLOW THE DREAM

*Follow the Dream*<sup>13</sup> is a secondary school level aspirations strategy overseen by the Western Australian Department of Education and Training (DET) designed to substantially increase the proportion of Aboriginal students who complete Year 12 with a Western Australian Certificate of Education, allowing entry into Technical and Further Education (TAFE) courses, or achieve a high enough Tertiary Entrance Ranking (TER) to gain entry into University.

DET is working on delivering *Follow the Dream* in conjunction with several partners, including the Australian Government Department of Education, Science and Training (DEST), the Polly Farmer Foundation, the Red Cross, The Smith Family, The University of Western Australia and the West Australian Office of Equal Employment Opportunity (OEEO). Each partner has a specific and important role to play in ensuring the success of the strategy — between them they cover all aspects of education including within school learning, out of school tutoring, vocational education, industry support, employment opportunities, family support and overall project management.

The *Follow the Dream* strategy is currently accessed through 36 government and 20 non-government senior high schools and colleges spread throughout Western Australia. It does not operate at the primary school level.

*Follow the Dream* works by first identifying those Aboriginal students for whom academic performance is at or above the Western Australian Literacy and Numeracy Assessment (WALNA) Year 7 benchmarks. These students are then invited to voluntarily participate in *Follow the Dream* from within participating secondary schools. Participating students then receive comprehensive support and mentoring for their academic pursuits from Year 8 through to Year 12 to ensure the best possible chance of graduation and access to higher education or employment.

While *Follow the Dream* is designed to operate in various parts of the state, each location has its own unique circumstances, including different local industries, different facilities and different educational options. The strategy aims to engender strong community support by having a steering committee at the local level responsible for the direction of the programme in each local community, including the development of training and employment opportunities in local industries, so that *Follow the Dream* can be relevant to students wherever it is implemented.

Bearing in mind retention issues, in 2001 there were 770 Aboriginal students enrolled in Year 11 in Western Australia, and by completion of the 2002 school year there were a total of 202 Year 12 Certificates issued to Aboriginal students.<sup>14</sup> In 2003, of students enrolled in government schools, 18 Aboriginal students achieved the minimum TER for entry to a public university in Western Australia.<sup>3</sup> By 2008 *Follow the Dream* aims to have at least 100 Aboriginal students per year achieving high enough TERs to gain direct entry to University and 1,000 Aboriginal students per year achieving a Western Australian Certificate of Education. If these ambitious goals are achieved, it will represent a substantial improvement for Aboriginal students in Western Australia.



## SCHOOL ATTENDANCE

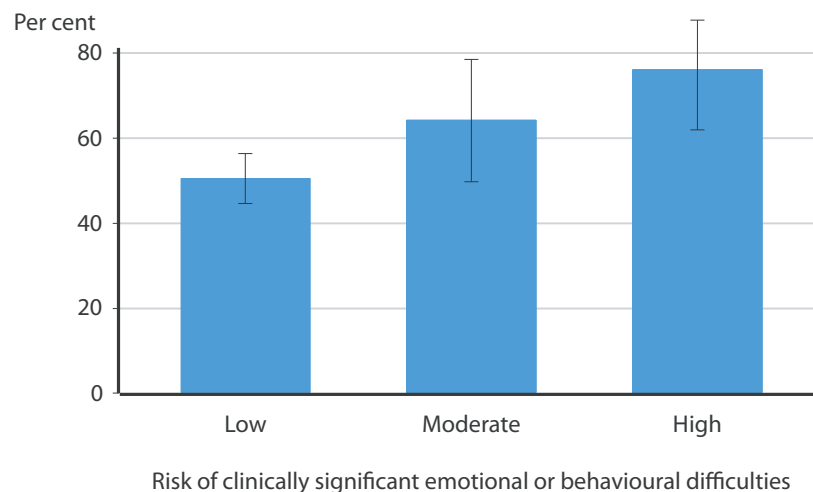
### Attendance at school and risk of clinically significant emotional or behavioural difficulties

The association between student emotional or behavioural difficulties and school attendance have been explored based on information collected from teachers on their students using the Strengths and Difficulties Questionnaire (SDQ). See *Glossary* for further details of the SDQ.

Students at high risk of clinically significant emotional or behavioural difficulties were more likely to be absent from school. Of those 12–17 year-old students at high risk of clinically significant emotional or behavioural difficulties, 76.2 per cent (CI: 62.0%–87.7%) were absent from school for 26 days or more during the school year compared with 50.6 per cent (CI: 44.7%–56.4%) of children at low risk (Figure 8.3).

Factors associated with high risk of clinically significant emotional or behavioural difficulties were discussed in detail in *Volume Two — The Social and Emotional Wellbeing of Aboriginal Children and Young People*.<sup>1</sup> These findings are also summarised in Chapter 5 of this volume.

**FIGURE 8.3:** STUDENTS AGED 12–17 YEARS WHO COMPLETED A YSR FORM — PROPORTION ABSENT FROM SCHOOL FOR 26 DAYS OR MORE, BY RISK OF CLINICALLY SIGNIFICANT EMOTIONAL OR BEHAVIOURAL DIFFICULTIES



Source: Table 8.5

### School attendance and problems with alcohol at home

Young people were asked ‘Does alcohol cause problems at your house?’ Of those students from households where alcohol caused problems, 69.0 per cent (CI: 58.5%–79.0%) were absent from school for 26 days or more during the school year. For students from households where alcohol did not cause problems, 51.6 per cent (CI: 45.4%–57.5%) were absent from school for 26 days or more (Table 8.6).

### Attendance at school and self-esteem

No association was found between attendance at school and low self-esteem for students aged 12–17 years. However there was a non-significant trend suggesting that lower self-esteem may be related to poor attendance. For those students in the lowest third of self-



esteem, 64.5 per cent (CI: 55.8%–72.2%) were absent from school for 26 days or more during the school year whereas, for students in the highest third of self-esteem, 47.8 per cent (CI: 38.6%–57.9%) were absent from school for 26 days or more (Table 8.7).

## YOUTH HEALTH RISK BEHAVIOURS AND SOCIAL AND EMOTIONAL WELLBEING

There are a variety of physical and mental health risk factors impacting on the lives of Aboriginal young people, some of which exhibit no direct relationship with either academic performance or school attendance, but which remain of considerable interest to the education sector. An extensive analysis of these issues was undertaken in *Volume Two — The Social and Emotional Wellbeing of Aboriginal Children and Young People*,<sup>1</sup> where one chapter was devoted to health risk behaviours and another to the relationship between these behaviours and social and emotional wellbeing.

The key findings of those chapters are summarised here, and readers who are particularly interested in these areas are encouraged to read Volume Two, which is available in hard copy or can be downloaded free-of-charge at [www.ichr.uwa.edu.au/waachs](http://www.ichr.uwa.edu.au/waachs).

### Physical activity

- ◆ More than one quarter of young people (28 per cent) had not done strenuous physical exercise in the week prior to the survey. One in five males (20 per cent) and more than one in three females (36 per cent) had not done strenuous exercise in the previous week.
- ◆ Almost half of all 17 year-old females (49 per cent) had not done strenuous exercise in the week prior to the survey compared with only 8 per cent of 17 year-old males.
- ◆ Young people no longer attending school were half as likely to have exercised strenuously in the week prior to the survey as young people still attending school.
- ◆ Young people who have smoked cigarettes were less likely to have exercised strenuously in the past seven days.

### Sexual knowledge and experience

- ◆ Adjusted for age, young people aged 12–17 years who were no longer attending school were six times more likely to have ever had sex than young people still at school.
- ◆ About 28 per cent of young people have had sex. Among 17 year-olds, three quarters (75 per cent) have had sex.
- ◆ Almost half (49 per cent) of 17 year-olds first had sex before the age of 16 years.
- ◆ Compared with young people of the same age and sex, a greater proportion of young people who had left school, used marijuana daily, smoked cigarettes regularly or drank alcohol have had sex.

*Continued . . .*



**YOUTH HEALTH RISK BEHAVIOURS AND SOCIAL AND EMOTIONAL WELLBEING** *(continued)*

- ◆ One in eight young people (13 per cent) who have had sex had not received any sexual education.
- ◆ School was a source of sexual education for 60 per cent of young people and the sole source for 41 per cent.

**Bullying and racism**

- ◆ Almost one third of young people (31 per cent) who were still attending school have been bullied. Young people who had smoked cigarettes regularly were over twice as likely to have been bullied.
- ◆ Over one in five young people (22 per cent) had been refused service or treated badly because they were Aboriginal.

**Cigarette smoking**

- ◆ Over one third of all 12–17 year-old young people (35 per cent) have smoked cigarettes regularly. Over half of 17 year-olds (58 per cent) have smoked regularly.
- ◆ Young people not attending school were over one and a half times more likely to have smoked cigarettes regularly compared with young people of the same age still in school.
- ◆ Young people who have at least one parent who smokes were almost twice as likely to have smoked cigarettes regularly as young people whose parents do not smoke.

**Alcohol**

- ◆ Just over one quarter of all young people (27 per cent) drank alcohol. At 17 years of age, 61 per cent of males and 43 per cent of females were drinking alcohol.
- ◆ Almost one in five young people (19 per cent) had been in a car with a drunk driver in the six months prior to the survey.

**Marijuana**

- ◆ Thirty per cent of young people have used marijuana at some time in their lives. Marijuana was used at least weekly by 45 per cent of 17 year-old males and 21 per cent of 17 year-old females.
- ◆ Three quarters of young people (75 per cent) who drank alcohol and smoked cigarettes also used marijuana, compared with only 8 per cent of young people who neither drank alcohol or smoked cigarettes.
- ◆ Adjusted for age, young people who were no longer going to school were significantly more likely to have tried marijuana, and to use it at least weekly, compared with those who were still attending school.

*Continued . . . .*

## YOUTH HEALTH RISK BEHAVIOURS AND SOCIAL AND EMOTIONAL WELLBEING *(continued)*

### Self-esteem

- ◆ Low self-esteem was associated with a high risk of clinically significant emotional or behavioural difficulties and with health risk behaviours.
- ◆ Self-esteem was lower for females, 32 per cent of whom had low self-esteem compared with 21 per cent of males.
- ◆ Self-esteem did not change with age in males but declined with age in females – 20 per cent of 12 year-old females had low self-esteem compared with 40 per cent of 17 year-old females.
- ◆ Young people who were more physically active or took part in organised sport had better self-esteem. Over a third of young people who had not exercised strenuously in the seven days prior to the survey had low self-esteem compared with 24 per cent who had exercised strenuously.

### Emotional or behavioural difficulties

- ◆ One in nine young people (11 per cent) were at high risk of clinically significant emotional or behavioural difficulties.
- ◆ The proportion of females at high risk of clinically significant emotional symptoms was more than double that of males (15 per cent compared with 6 per cent).
- ◆ About 23 per cent of young people were at high risk of clinically significant conduct problems and 15 per cent were at high risk of clinically significant hyperactivity.
- ◆ About forty per cent of young people whose carers' parenting style was poor were at high risk of clinically significant conduct problems, compared with 26 per cent of young people whose carers' parenting style was sub-optimal and 15 per cent of young people whose carers' parenting style was adequate.

### Associations with health risk behaviours

- ◆ About 18 per cent of young people who smoked cigarettes were at high risk of clinically significant emotional or behavioural difficulties compared with 7 per cent of non-smokers. This association was most pronounced in females (22 per cent compared with 7 per cent).
- ◆ Over one quarter (29 per cent) of young people who used marijuana daily were at high risk of clinically significant emotional or behavioural difficulties compared with 9 per cent of young people who had never used marijuana.
- ◆ Of young people who did not participate in organised sport, 16 per cent were at high risk of clinically significant emotional or behavioural difficulties compared with 8 per cent of young people who did.

*Continued . . .*



**YOUTH HEALTH RISK BEHAVIOURS AND SOCIAL AND EMOTIONAL WELLBEING** *(continued)*

- ◆ Almost one in five (19 per cent) young people who had experienced racism in the past six months were at high risk of clinically significant emotional or behavioural difficulties, compared with 9 per cent of those who had not.

**Suicidal behaviour**

- ◆ About 16 per cent of young people aged 12–17 years had seriously thought about ending their own life during the 12 months prior to the survey. Suicidal thoughts were less common in males (12 per cent) than in females (20 per cent).
- ◆ Of those who had thought about suicide, 39 per cent had also attempted suicide during the 12 months prior to the survey.
- ◆ Approximately 21 per cent of males in the lowest quartile of self-esteem had thought about suicide compared with 5 per cent of males in the highest quartile.
- ◆ A much larger proportion of young people at high risk of clinically significant emotional or behavioural difficulties had thought about suicide (37 per cent) or had attempted suicide (21 per cent) in the 12 months prior to the survey than young people at low risk of clinically significant emotional or behavioural difficulties (10 per cent and 3 per cent respectively).
- ◆ A significantly higher proportion of young people who had used marijuana within the last year, smoked cigarettes regularly or drunk alcohol to excess had seriously thought about ending their own life in the 12 months prior to the survey than those who had not.
- ◆ About 22 per cent of young people exposed to family violence had thought about suicide compared with 9 per cent who had not been exposed to family violence.
- ◆ Almost one quarter (24 per cent) of females with friends or people known to them who had recently attempted suicide had themselves attempted suicide compared with 5 per cent who had no acquaintances who had recently attempted suicide.

Even though most of these items show no direct association with either academic performance or school attendance, these factors still have significant impacts on the lives of Aboriginal young people. Schools occupy a powerful position of influence over the children in their care. As the majority of young people now attend school until at least 16 years of age, the school environment is an ideal place to teach young people about the impacts of these health risk behaviours on life outcomes — for example, how taking regular physical exercise can benefit long term health; how to avoid unwanted pregnancies and sexually transmitted diseases; and the damage that tobacco, alcohol and marijuana use can inflict on the individual, the family and the community.





## Factors associated with poor school attendance – Modelled outcomes for students aged 12–17 years

Multivariate logistic regression modelling (see *Glossary*) was undertaken to examine the association between demographic and youth risk factors and below median attendance at school (absences of 26 days or more in the school year) (Table 8.8). Independently of all other variables in the model, it was found that the following factors were associated with below median attendance:

**Age.** Young people aged 15–17 years who were still at school were 38 per cent less likely (Odds Ratio 0.62; CI: 0.39–0.98) to have below median attendance compared with students aged 12–14 years.

**Level of Relative Isolation (LORI).** Relative to students aged 12–17 years living in the Perth metropolitan area, young people living outside of the metropolitan area were more likely to have higher levels of absence from school. Students living in areas of low relative isolation were 1.48 times (CI: 1.06–2.08) as likely to have below median attendance, students living in areas of moderate relative isolation were 3.25 times (CI: 2.09–5.06) as likely, students living in areas of high relative isolation were 4.08 times (CI: 2.30–7.23) as likely, and those in areas of extreme relative isolation were 2.97 times (CI: 1.57–5.62) as likely to have below median attendance.

**Teacher reported risk of clinically significant emotional or behavioural difficulties.** Students at moderate risk of clinically significant emotional or behavioural difficulties were 1.57 times (CI: 1.15–2.14) as likely and those at high risk were 2.35 times (CI: 1.72–3.21) as likely to have below median school attendance compared with those at low risk.

**Ever had sex.** Students who had ever had sex were 2.61 times (CI: 1.12–6.06) more likely to have below median school attendance compared with those who had never had sex.

Factors that were not independently associated with below median school attendance among young people aged 12–17 years included:

- ◆ self-esteem
- ◆ racism and bullying
- ◆ religion and spirituality
- ◆ whether student had been in a physical fight in the past six months
- ◆ whether student had been in a family violence situation
- ◆ educational encouragement from parents
- ◆ regular marijuana use (see note below list)
- ◆ having someone to yarn to if student has a problem
- ◆ having a special friend or mate
- ◆ primary carer's educational attainment
- ◆ primary carer's current or historical employment status
- ◆ primary carer's Aboriginal status
- ◆ whether the primary carer was forcibly separated from their natural family by a mission, the government or welfare
- ◆ whether the primary carer suffers from a long term limiting health condition



- ◆ family financial strain
- ◆ family functioning
- ◆ number of life stress events occurring in the past 12 months
- ◆ quality of parenting
- ◆ whether the student had undertaken strenuous exercise in the past seven days.

Although the association between marijuana use and below median attendance was not statistically significant, it was very close to significance. Because of the high odds ratio of 2.98 (CI: 0.94–9.41) and the marginal statistical significance of this finding, this variable was left in the final model.

## FOUNDATIONS FOR SUCCESS IN HIGH SCHOOL

As described in Chapter 5, the average level of academic performance of Aboriginal children falls behind that of non-Aboriginal children during the first years of school, and is maintained at a consistently low level throughout the remaining school years. Added to the disadvantage of beginning school already behind their non-Aboriginal peers, the decline in academic performance from early to late primary school is steeper for Aboriginal students. This means that, as Aboriginal children progress through primary school, their performance falls further behind the academic performance of non-Aboriginal students.

This chapter presents analyses of the academic performance and attendance of young people aged 12–17 years for whom school details and a Youth Self-Report were received. Many of the findings and associations shown mirror those from earlier chapters that also looked at all children aged 4–17 years. For example, the median number of days absent from school in a school year was 26 days for Aboriginal students compared with a much lower 8 days for non-Aboriginal students (see *Chapter 4*). This pattern of much lower levels of attendance at school for Aboriginal students was evident from the earliest years of primary school where the foundations for educational success are laid.

The poor achievement levels observed in the analyses of school performance in young Aboriginal people aged 12–17 years have their origins early in primary school. The survey findings suggest the need for a combination of pre-school and early primary school programmes designed specifically to bring Aboriginal children up to the same average levels as the equivalent non-Aboriginal age-cohorts. It is unlikely that aspirational programmes aimed at the high school years will achieve the same level of success as interventions aimed at improving the readiness of Aboriginal children to start school and supporting children through the primary school years.



## STUDENT SELF-ASSESSMENT OF SCHOOL WORK PERFORMANCE COMPARED WITH SCHOOL TEACHER RATINGS

Aboriginal young people aged 12–17 years were asked to independently answer a Youth Self Report (YSR) questionnaire (see *Appendix D*) covering a range of activities and behaviours, including aspects of their schooling and of family support and encouragement for their education.

This section briefly examines how 12–17 year-old Aboriginal students who responded to the YSR questionnaire consider they are doing at school and compares this with the teacher's assessment of their academic performance. Several factors are examined for their strength of association with the propensity for students to differ from teachers in rating their performance at school. The smaller sample size of 12–17 year-old students who completed a Youth Self Report has meant that associations analysed in this section are less likely to achieve statistical significance than those reported in Chapter 7.

### STUDENT RATINGS OF HOW THEY ARE DOING AT SCHOOL

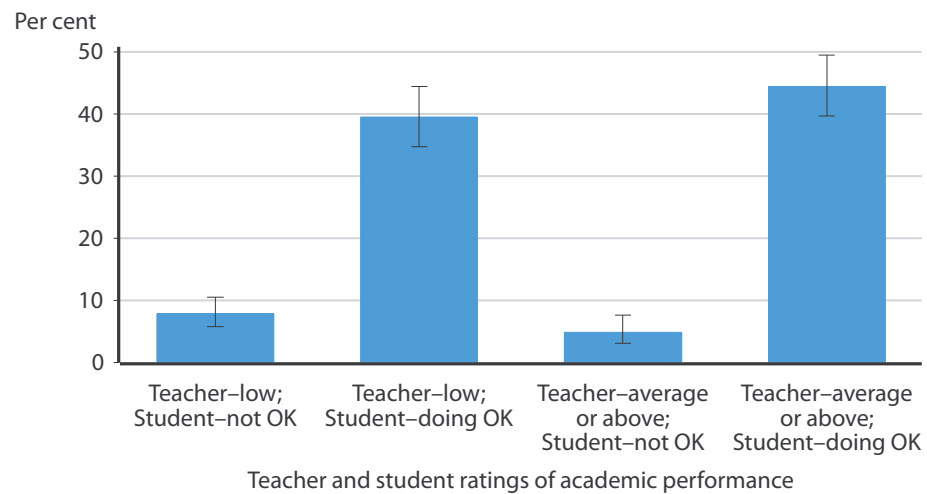
Aboriginal students aged 12–17 years were asked 'Are you doing OK at school?' ('Yes' or 'No'). Most young people (83.9 per cent; CI: 80.2%–87.3%) reported that they were doing OK, a proportion not dissimilar to the proportion reported by their primary carers to be doing OK at school work (88.0 per cent; CI: 85.0%–90.6%) (Table 8.9). There was no statistically significant variation in the student's ratings across areas of isolation, proportions ranging from 83.8 per cent (CI: 76.7%–89.9%) in the Perth metropolitan area (no isolation) to 89.9 per cent (CI: 75.0%–98.0%) in areas of high and extreme relative isolation (Table 8.10).

### COMPARING STUDENT AND SCHOOL TEACHER RATINGS OF SCHOOL WORK PERFORMANCE

To enable a comparison of student ratings with teacher ratings of school performance, a student response that they were 'doing OK at school' was assumed to be an indication of how well they were performing with school work and to indicate that their school work performance was at least comparable with the teacher category 'At age level' academic performance. (The same assumption was used for primary carer ratings of the student's school work performance – see commentary box entitled *Rating student school work performance* in Chapter 7).

When the school performance ratings of teachers and students were compared, two in five students (39.4 per cent; CI: 34.6%–44.3%) aged 12–17 years rated themselves as doing OK at school yet were rated by their teachers as having low academic performance (Figure 8.4). Although this is a markedly high level of discrepancy, the proportion was significantly below that derived from comparing primary carer ratings with teacher ratings (49.3 per cent; CI: 46.6%–52.1%) in Chapter 7. Another 44.5 per cent (CI: 39.7%–49.5%) of students reported doing OK at school, an assessment supported by teacher ratings of average or above average academic performance.



**FIGURE 8.4:** STUDENTS AGED 12–17 YEARS WHO COMPLETED A YSR FORM — SCHOOL TEACHER AND STUDENT RATINGS OF ACADEMIC PERFORMANCE

Source: Table 8.11

For purposes of further analysis, the four categories of teacher and student rating comparisons have been condensed into the following two categories (as was done with the teacher/carer comparisons in Chapter 7):

- ◆ Teacher – low academic performance; Student – doing OK (teachers and students differ);
- ◆ All other students. Included in this category are the 4.9 per cent (CI: 3.1%–7.7%) of students rated by their teachers as having average or above average academic performance yet rated by themselves as not doing OK.

As with the carer comparison analysis in Chapter 7, the following analysis uses the teacher’s rating as the benchmark measure of academic performance.

## FACTORS ASSOCIATED WITH DIFFERENCES IN STUDENT AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE

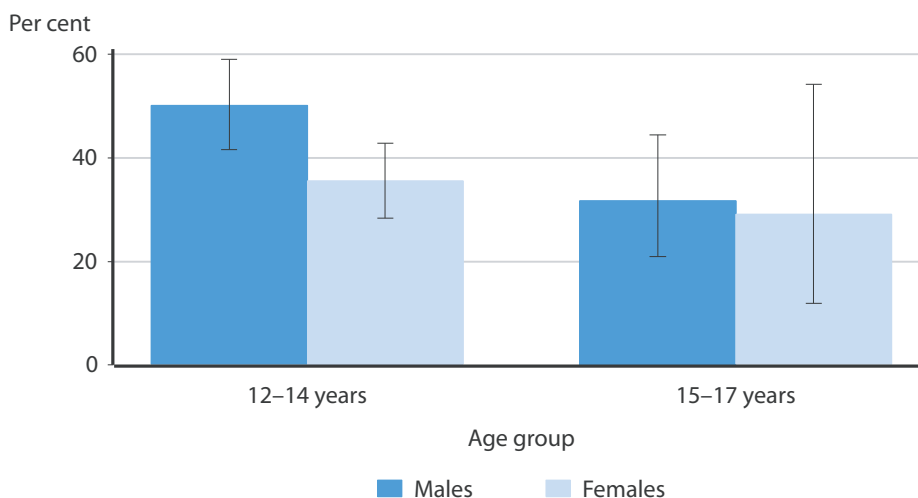
The smaller sample size of 12–17 year-old students who completed a Youth Self Report questionnaire has meant that associations are less likely to achieve statistical significance. Associations meeting this description are reported below and qualified where necessary.

### Sex and age

An estimated 45.3 per cent (CI: 38.6%–52.5%) of male students aged 12–17 years were in discrepancy with teachers about their school work performance compared with an estimated 34.0 per cent (CI: 26.5%–41.6%) of female students. This difference, though not statistically significant, was principally due to the self-assessment of 12–14 year-old male students, of whom half (50.2 per cent; CI: 41.6%–59.1%) were in discrepancy with their teachers (Figure 8.5).



**FIGURE 8.5:** STUDENTS AGED 12–17 YEARS WHO COMPLETED A YSR FORM— PROPORTION FOR WHOM THERE WAS A DISCREPANCY WITH TEACHERS ABOUT THEIR SCHOOL WORK PERFORMANCE, BY AGE GROUP AND SEX

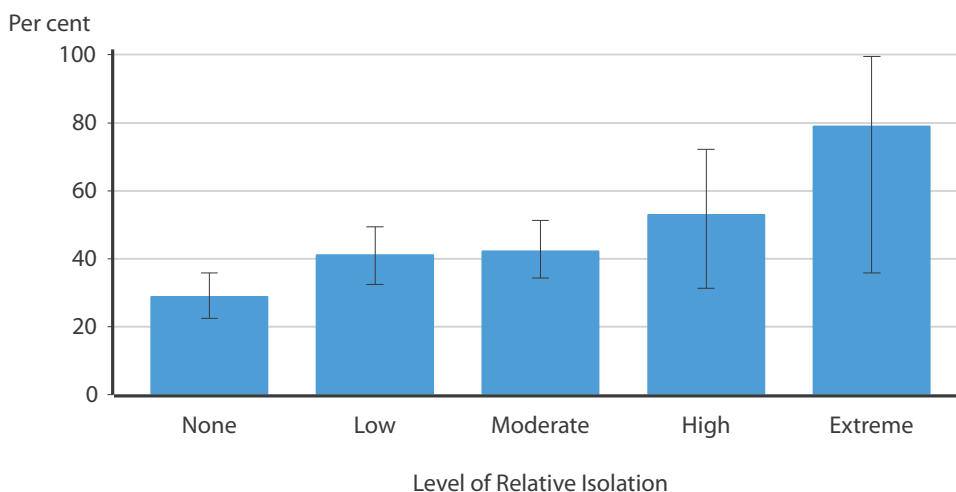


Source: Table 8.12

### Level of Relative Isolation

The level of discrepancy between student and teacher ratings of school performance was lowest for students in the Perth metropolitan area (28.8 per cent; CI: 22.4%–35.8%) and trended higher with increasing isolation (Figure 8.6).

**FIGURE 8.6:** STUDENTS AGED 12–17 YEARS WHO COMPLETED A YSR FORM — PROPORTION FOR WHOM THERE WAS A DISCREPANCY WITH TEACHERS ABOUT THEIR SCHOOL WORK PERFORMANCE, BY LEVEL OF RELATIVE ISOLATION



Source: Table 8.13



### Student speaks an Aboriginal language

Less than one in ten students aged 12–17 years – an estimated 460 (CI: 270–700) out of 5,220 – were conversant in an Aboriginal language. More than six in ten (62.7 per cent; CI: 44.8%–77.5%) of these students rated themselves as doing OK at school yet were rated by their teachers as having low academic performance. This proportion was significantly higher than for students who could speak a few words of an Aboriginal language (37.3 per cent; CI: 31.6%–43.3%) and higher compared with students who did not speak an Aboriginal language (36.6 per cent; CI: 26.3%–47.6%) (Table 8.14).

### Emotional and behavioural wellbeing of the student

Teachers provided an independent rating of the student's risk of clinically significant emotional or behavioural difficulties (see *Glossary*). One third of students (33.9 per cent; CI: 28.1%–40.0%) rated at low risk reported that they were doing OK at school yet were rated by their teachers as having low academic performance. For students rated as being at either moderate or high risk of clinically significant emotional or behavioural difficulties, the proportion for whom there was a discrepancy with their teacher's academic rating increased to over half – 56.4 per cent (CI: 42.3%–70.2%) for those at moderate risk and 52.5 per cent (CI: 38.1%–67.9%) for those at high risk (Table 8.15).

### Other factors not found to be independently associated with differences in student and teacher ratings of the student's academic performance

The following factors were analysed and found not to be significantly associated:

- ◆ category of school attended
- ◆ days of absence from school
- ◆ how much the student knows about Aboriginal culture and heritage
- ◆ how much is taught about Aboriginal culture and heritage in the student's school
- ◆ student participation in organised sports over the 12 months prior to the survey
- ◆ the importance to the student of having good marks at school
- ◆ the importance to the student of attending school regularly
- ◆ the importance to the student of finishing Year 12
- ◆ how much encouragement from parents/family to have good marks at school
- ◆ how much encouragement from parents/family to attend school regularly
- ◆ how much encouragement from parents/family to finish Year 12.



## STUDENT AND TEACHER RATINGS OF SCHOOL WORK PERFORMANCE

Results found in this section are in general agreement with those shown in Chapter 7. When comparing carer and teacher ratings of student academic performance, it was clear that carers had a perception of higher academic performance for their children than the performance observed by their teachers or measured on independent tests. While most carers were happy with the schools their children were attending, and felt the schools were approachable, most carers believed their children were doing well at school. This was in stark contrast to the teachers' ratings, the students' performance on the WALNA tests, and the results of the word definitions test.

The findings in this section clearly show that most students aged 12–17 years have a similarly positive impression of their performance at school, in contrast to the evidence from teachers and the standardised tests. Students' perceptions are likely to be influenced by messages they receive in both the school environment and the family environment. These findings suggest that students' expectations are generally similar to those of their carers. This may imply an inter-generational transfer of the legacy of poor school experiences and attitudes towards schooling from the past.

These findings add extra urgency to the need for schools to proactively engage the families and communities they serve to help change previous generations' views on what school is and can be, to promote the positive value of school education in providing pathways to greater life choices, to provide carers themselves with opportunities to obtain positive educational experiences, and to develop a shared school and community sense of values and standards for educational outcomes for Aboriginal children.

## YOUNG PEOPLE NO LONGER GOING TO SCHOOL

Overall, an estimated 24.5 per cent (CI: 21.8%–27.4%) or 2,230 out of a total 9,100 young people aged 12–17 years were no longer going to school (see *Appendix D* for more information). Viewed by age group, this equates to around 240 of all 12–14 year-olds (5.0 per cent; CI: 3.1%–7.7%) and an estimated 1,980 of all 15–17 year-olds (47.3 per cent; CI: 43.0%–51.7%) no longer going to school (Table 8.16).

Due to the very small number of 12–14 year-olds no longer going to school the modelled analyses have concentrated on those young people aged 15–17 years.

Of the total population of 15–17 year-olds, some 56.3 per cent (CI: 51.8%–60.6%) were still in some form of education (school or post-school based), while 12.2 per cent (CI: 9.8%–14.8%) were reported to be working and 31.5 per cent (CI: 27.3%–36.1%) were neither in education nor work (Table 8.17).

Of those 15–17 year-olds no longer going to school, 7.6 per cent (CI: 4.2%–11.9%) were estimated to be in some form of post-school education (e.g. TAFE), while 25.7 per cent (CI: 20.6%–31.2%) were estimated to be in some form of work, although the nature or duration of that work was not ascertained. Two-thirds (66.7 per cent; CI: 60.6%–72.4%) were estimated to be in neither education nor work (Table 8.17).



Viewed from a purely educational perspective, this means that 92.4 per cent (CI: 88.1%–95.8%) of 15–17 year old young people that have left school are not in any recognised form of education (Table 8.18).

Starting from 2006, the period of compulsory education for all Western Australian young people will extend until the end of the year they turn 16, rising to 17 years by 2008. Previously young people had to remain in school until the end of the year they turned 15. For more information on these changes to the Western Australian education system see Chapter 2.

## FACTORS ASSOCIATED WITH YOUNG PEOPLE NO LONGER ATTENDING SCHOOL

Two factors, self-esteem and whether the young person has ever had sex, were taken from the YSR questionnaire and thus reported by the young people themselves. Other factors were taken from the carer reported CHQ and the carer's own report — whether the young person had drunk alcohol or gotten drunk in the past six months; used drugs other than alcohol; whether overuse of alcohol causes problems in the household; and whether the carer has ever worked in paid employment.

The CHQ provides a more representative sample of both 15–17 year-olds and young people with behavioural problems. The CHQ also contains several questions on these issues that were not included in the YSR. For more information, see the commentary box entitled *Participation in the Youth Self-Report* at the beginning of this chapter.

### Self-esteem

All young people who completed a YSR questionnaire were asked whether they still went to school. No association was found between whether a young person still goes to school and their self-esteem (Table 8.19).

### Whether ever had sex

All young people who completed a YSR questionnaire were asked whether they had ever had sex. Of those aged 12–14 years who were still attending school, 7.7 per cent (CI: 5.3%–10.7%) had ever had sex compared with 33.3 per cent (CI: 13.3%–59.0%) of those no longer attending school. The pattern was similar for 15–17 year-olds, with 32.2 per cent (CI: 25.5%–39.8%) of those still attending school having ever had sex, compared with 68.2 per cent (CI: 62.0%–73.8%) who were no longer going to school (Table 8.20). See Volume Two for a more complete analysis of young people who have ever had sex.<sup>1</sup>

### Drunk alcohol or gotten drunk

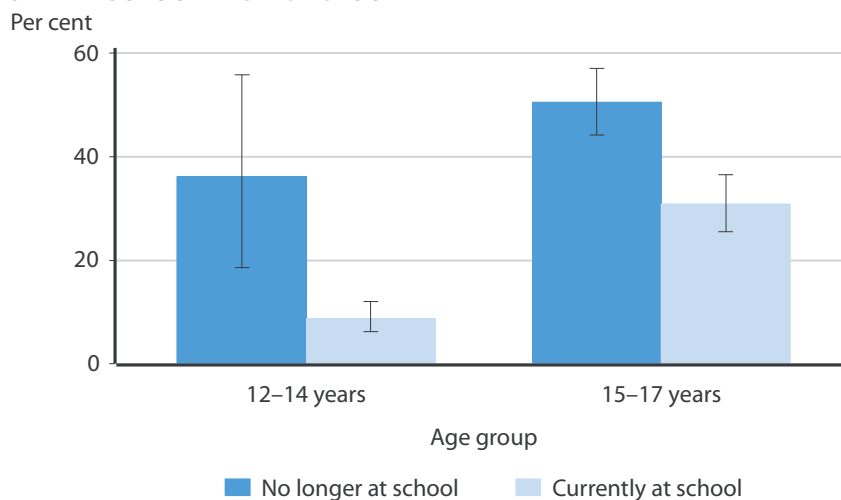
Primary carers were asked if any of their children had drunk alcohol or gotten drunk in the six months prior to the survey. For young people aged 12–14 years who were no longer going to school, 36.2 per cent (CI: 18.6%–55.9%) had drunk alcohol or gotten drunk in the previous six months compared with 8.7 per cent (CI: 6.2%–12.0%) of 12–14 year-olds who were still attending school (Figure 8.7).

For young people aged 15–17 years, the difference was less pronounced but still evident. For those 15–17 year-olds no longer in school, 50.5 per cent (CI: 44.2%–57.1%) had drunk alcohol or gotten drunk in the previous six months compared with 30.8 per cent (CI: 25.5%–36.5%) of 15–17 year-olds who were still attending school (Figure 8.7).





**FIGURE 8.7:** YOUNG PEOPLE AGED 12–17 YEARS, CARER REPORT — PROPORTION WHO HAVE DRUNK ALCOHOL OR GOTTEN DRUNK IN THE PAST SIX MONTHS, BY WHETHER STILL AT SCHOOL AND AGE GROUP



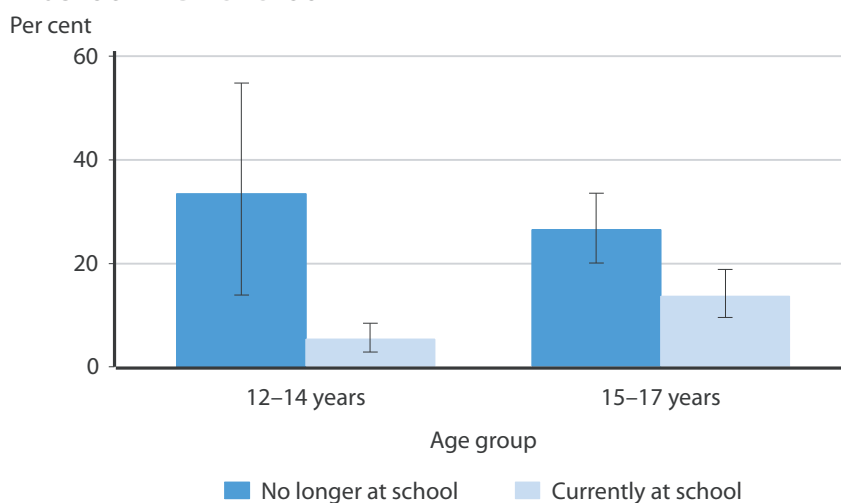
Source: Table 8.21

### Use of drugs other than alcohol

Carers were asked if any of their children had used drugs other than alcohol in the six months prior to the survey. For young people aged 12–14 years who were no longer going to school, 33.4 per cent (CI: 13.9%–54.9%) had used drugs other than alcohol in the previous six months compared with 5.3 per cent (CI: 2.9%–8.4%) of 12–14 year-olds who were still attending school (Figure 8.8).

For young people aged 15–17 years the difference was less pronounced but still evident. For those 15–17 year-olds no longer in school, 26.5 per cent (CI: 20.1%–33.6%) had used drugs other than alcohol in the previous six months compared with 13.7 per cent (CI: 9.5%–18.9%) of 15–17 year-olds who were still attending school (Figure 8.8).

**FIGURE 8.8:** YOUNG PEOPLE AGED 12–17 YEARS, CARER REPORT — PROPORTION WHO HAD USED DRUGS OTHER THAN ALCOHOL IN THE PAST SIX MONTHS, BY WHETHER STILL AT SCHOOL AND AGE GROUP



Source: Table 8.22



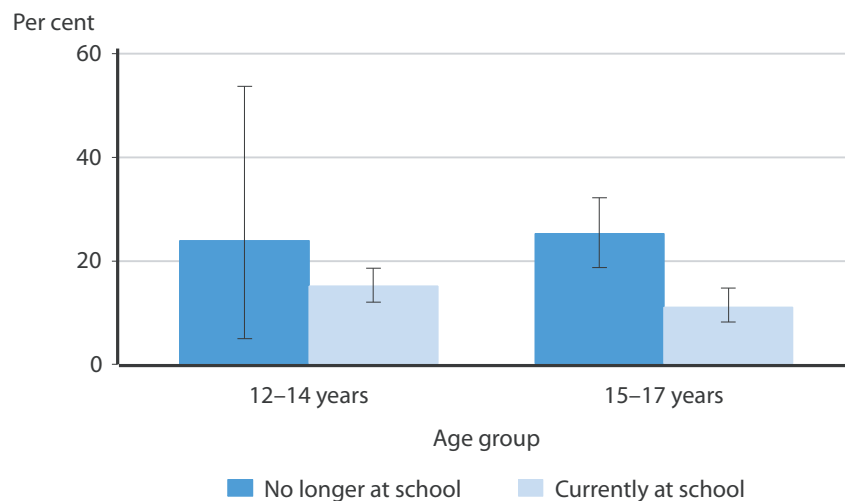
### Carer ever in paid employment

Carers were asked if they had ever worked in a job where they got paid. For young people aged 12–17 years who were going to school, 86.6 per cent (CI: 83.8%–89.0%) had a primary carer who had ever worked in a paid job. For young people who were not going to school, 77.9 per cent (CI: 71.6%–83.6%) had a primary carer who had ever worked in a paid job. Significant differences were not found within age groups, but were in the direction of the 12–17 year-old finding (Table 8.23).

### Overuse of alcohol causes problems in the household

Carers were asked if overuse of alcohol caused problems in the household. For young people aged 12–17 years who were no longer going to school, 25.1 per cent (CI: 18.9%–32.0%) were living in a household in which alcohol caused problems compared with 13.8 per cent (CI: 11.3%–16.4%) of 12–17 year-olds who were still attending school. No significant differences were found in young people aged 12–14 years, but in young people aged 15–17 years, 25.3 per cent (CI: 18.7%–32.2%) who were no longer going to school were living in households where alcohol caused problems, compared with 11.1 per cent (CI: 8.2%–14.7%) of 15–17 year-olds still going to school (Figure 8.9).

**FIGURE 8.9:** YOUNG PEOPLE AGED 12–17 YEARS, CARER REPORT — PROPORTION FOR WHOM OVERUSE OF ALCOHOL CAUSES PROBLEMS IN THE HOUSEHOLD, BY WHETHER STILL AT SCHOOL AND AGE GROUP



Source: Table 8.24

### FACTORS ASSOCIATED WITH NO LONGER GOING TO SCHOOL – MODELLED OUTCOMES FOR YOUNG PEOPLE AGED 15–17 YEARS

Multivariate logistic regression modelling (see *Glossary*) was undertaken to examine the association between demographic, carer and carer reported youth risk factors and the likelihood that a young person no longer goes to school (Table 8.25). Independently of all other variables in the model, it was found that the following factors were associated with 15–17 year-olds no longer going to school:

**Level of Relative Isolation (LORI).** Increasing relative isolation was associated with a lower proportion of young people aged 15–17 years still going to school. Young people aged 15–17 years living in areas of low relative isolation were 2.43 times (CI: 1.45–4.08) more likely, young people living in areas of high relative isolation were 2.13 times



(CI: 1.09–4.15) more likely, and young people living in areas of extreme relative isolation were 2.75 times (CI: 1.24–6.06) more likely to be no longer going to school.

**Overuse of alcohol causes problems in the household.** Young people aged 15–17 years living in households where alcohol was reported by their carer to cause problems were 2.43 times (CI: 1.36–4.34) more likely to be no longer going to school than those living in households where overuse of alcohol was not reported to cause problems.

**Alcohol use by young people.** Young people aged 15–17 years who were reported by their carer to have drunk alcohol or gotten drunk in the six months prior to the survey were 2.30 times (CI: 1.55–3.40) more likely to be no longer going to school than those young people not reported to have drunk alcohol.

Factors that were found not to be independently associated with young people aged 15–17 years no longer going to school included:

- ◆ self-esteem
- ◆ young person's use of drugs other than alcohol
- ◆ primary carer reported risk of clinically significant emotional or behavioural difficulties
- ◆ primary carer's educational attainment
- ◆ primary carer's current or historical employment status
- ◆ whether the primary carer was forcibly separated from their natural family by a mission, the government or welfare
- ◆ whether primary carer suffers from a long term limiting health condition
- ◆ family financial strain
- ◆ family functioning
- ◆ number of life stress events occurring in the past 12 months
- ◆ quality of parenting.

## TIME FOR CHANGE

The survey has shown that Aboriginal students do less well in school than non-Aboriginal children from the beginning of formal schooling onwards. Aboriginal children also have far lower retention rates into upper high school than non-Aboriginal children. A large proportion of 15–17 year-old Aboriginal young people who no longer attend school are not in any form of education.

It is clear from the survey findings that, while there are Aboriginal children who do perform at age level or above, who attend school regularly, and who do stay on into upper high school or post-school education, the great majority do not. This outcome can only help serve to perpetuate the long-standing high levels of disadvantage experienced by Aboriginal people relative to the rest of Australian society. At what point should educators step in to address these issues such that they will have the greatest long-term positive impact on the education outcomes for Aboriginal children?

*Continued . . .*



**TIME FOR CHANGE** *(continued)*

International longitudinal research has shown a link between pre-school and early education intervention and a series of positive life outcomes for children from low socio-economic backgrounds. One study showed that children who were subject to pre-school intervention for 1–2 years were more likely to complete high school, have lower rates of juvenile arrest and a lower rate of school drop-out. When the intervention was continued into the second or third grade, even greater benefits were recorded.<sup>15</sup>

The Perry Preschool Study has tracked 123 African-American children from low-income families since 1962, analysing data for participants annually from age 3 to 11 years, and then at ages 14, 15, 19, 27 and most recently 40 years. While all 123 children were assessed as being at high risk of school failure, 58 children were randomly selected to receive a pre-school intervention programme at ages 3 and 4 years, and 65 children received no educational intervention.<sup>16</sup> The differences in life outcomes between the two groups have been marked. Those who received the intervention did significantly better on IQ tests at age 5 years, outperformed non-programme children on intellectual and language tests from pre-school through to age 7 years, did better on school achievement tests from age 9–14 years and did better on literacy tests at age 19 and 27 years. On top of this, as adults those who received the intervention did better economically with better employment, higher earnings, higher levels of home ownership and less use of social services. By the age of 40 years, the group who received the intervention had sustained fewer lifetime arrests and had served significantly less time in prison.

It has been demonstrated by Juel (1988) that if a child starts school as a good reader then they are highly likely to still be a good reader by grade four, but if a child starts school as a poor reader then they are most likely to still be a poor reader by grade four.<sup>17</sup> Francis *et al* (1996) showed that over the period grade one to grade nine, low achieving and reading disabled-discrepant students never caught up to their non reading-impaired peers.<sup>18</sup> This study also supported Juel's earlier finding that students beginning school as poor readers tended to remain poor readers in later years of schooling. Whilst all three ability level groups improved their reading steadily from grade one through to grade six, reading development slowed thereafter, re-enforcing the theory that early intervention may give educators the greatest return on their investment.

Results of this kind are not isolated to just these studies, but they are used to illustrate the current thinking in some academic circles about the importance of early educational intervention in shaping life outcomes for people from disadvantaged backgrounds. The survey has illustrated the extent of the academic performance deficit with which most Aboriginal children start school in comparison to the non-Aboriginal population, and at each subsequent age bracket a similar or greater gap is found. As shown by the examples above, without the existence of an early intervention education programme targeting pre-school through early primary school children, this depressing trend is likely to continue for generations. It is time to take action to address this situation.



## ENDNOTES

1. Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, De Maio JA, Cox A, Li J. *The Western Australian Aboriginal Child Health Survey: The social and emotional wellbeing of Aboriginal children and young people*. Perth: Curtin University of Technology and Telethon Institute for Child Health Research; 2005.
2. Zubrick SR, Lawrence DM, Silburn SR, Blair E, Milroy H, Wilkes E, Eades S, D'Antoine H, Read A, Ishiguchi P, Doyle S. *The Western Australian Aboriginal Child Health Survey: The health of Aboriginal children and young people*. Perth: Telethon Institute for Child Health Research; 2004.
3. Department of Education and Training. Personal communication. Perth: Government of Western Australia; 2005.
4. Rosenberg M. *Society and the adolescent self-image*. Princeton: Princeton University Press; 1965.
5. Blaskovich J, Tomaka J. Measures of self-esteem. In: Robinson JP, Shaver PR, Wrightman LS, editors. *Measures of personality and social psychological attitudes: Volume 1*. San Diego: Academic Press; 1991. p. 115–160.
6. Zubrick SR, Silburn SR, Gurrin L, Teoh H, Shepherd C, Carlton J, Lawrence D. *Western Australian Child Health Survey: Education, health and competence*. Perth: Australian Bureau of Statistics and the TVW Telethon Institute for Child Health Research; 1997.
7. Marsh HW. *Self-Description Questionnaire (II): Manual*. Campbelltown: University of Western Sydney; 1990.
8. Phinney JS. When we talk about American ethnic groups, what do we mean? *American Psychologist* 1996;51:918-27.
9. Twenge JM, Crocker J. Race and self-esteem: Meta-analyses comparing Whites, Blacks, Hispanics, Asians, and American Indians and comment on Gray-Little and Hafsdahl (2000). *Psychological Bulletin* 2002;128:371–408.
10. Crocker J, Park LE. The costly pursuit of self-esteem. *Psychological Bulletin* 2004;130:392–414.
11. Baumeister RF. *Self-esteem: The puzzle of low self-regard*. New York: Springer; 1993.
12. Raphael D. Determinants of health of North-American adolescents: Evolving definitions, recent findings, and proposed research agenda. *Journal of Adolescent Health* 1996;19:6–16.
13. Department of Education and Training. *Follow the Dream. A secondary aspirations strategy for Aboriginal students*. Perth: Government of Western Australia; 2002.
14. Steering Committee for the Review of Government Service Provision. *Overcoming Indigenous Disadvantage. Key Indicators 2005. Report. Supporting Table 3A.3.6*. Canberra: Productivity Commission; [Online]. 2005 [cited 2005 Nov 10]. Available from: URL: <http://www.pc.gov.au/gsp/reports/indigenous/keyindicators2005/>
15. Reynolds AJ, Temple JA, Robertson DL, Mann EA. Long-term Effects of an Early Childhood Intervention on Educational Achievement and Juvenile Arrest – A 15-Year Follow-up of Low-Income Children in Public Schools. *Journal of the American Medical Association* 2001;285:2339–46.
16. Schweinhart LJ. *The High/Scope Perry Preschool Study Through Age 40 Summary, Conclusions, and Frequently Asked Questions*. Ypsilanti: High/Scope Press; 2005.
17. Juel C. Learning to read and write: A longitudinal study of 54 children from first to fourth grades. *Journal of Educational Psychology* 1988; 80:437–47.
18. Francis DJ, Shaywitz SE, Stuebing KK, Shaywitz BA, Fletcher JM. Developmental lag versus deficit models of reading disability: A longitudinal, individual growth curves analysis. *Journal of Educational Psychology* 1996;88:3–17.



# Chapter 9

## EDUCATION, HEALTH AND WELLBEING

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## Chapter 9

### EDUCATION, HEALTH AND WELLBEING

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*In contemplating the nature of human development and its requirements, four essential capabilities have been cited:*

- ◆ *to be able to survive*
- ◆ *to be knowledgeable*
- ◆ *to have access to resources for a necessary standard of living*
- ◆ *to participate in the life of a community.*<sup>1</sup>

*These capabilities are so ingrained in the mainstream of Australian experience, they are largely unseen. However, in citing them here, the contribution of education to the Australian Aboriginal circumstance is brought into focus. The level of relative disparity in the educational outcomes of Aboriginal children and young people represents a principal barrier to their onward survival, access to resources, and participation in the most fundamental activities of social and civic life. Education systems are uniquely positioned among all other human service agencies to initiate changes as well as lead other sectors to undertake actions that would break the cycle of disadvantage that Aboriginal people experience.*

---

#### SUMMARY OF RECOMMENDED ACTIONS

Based on the findings reported in this volume and the learnings of the previous two volumes, the following recommendations have been formulated to offer a basis for moving forward to improve educational outcomes for Aboriginal students. There are two key principles that emerge from the survey findings that underpin the recommendations. These are:

- ◆ the need for schools to engage carers and communities to break the cycle of the transfer of educational disadvantage between generations
- ◆ the need to improve early childhood and early school learning for Aboriginal children to prevent children falling behind in the crucial early years of life.

With these principles in mind, the following recommendations are offered as a basis of forming strategies to improve educational outcomes for Aboriginal students.

#### Early childhood and early school learning

**Action 1** Education systems should implement educational programmes and curricula based on developmentally appropriate, evidence-based practices that support Aboriginal children in the early primary school years.

**Action 2** Education systems should work with other relevant family and human services agencies to provide educational day care and child development experiences for young Aboriginal children to better prepare them for learning. This should take the form of:





## SUMMARY OF RECOMMENDED ACTIONS *(continued)*

- ◆ early childhood education and developmentally appropriate readiness to learn programmes for toddlers in home care, day care, play groups and other settings
- ◆ language and cognitive enrichment programmes at kindergarten and pre-school.

### Engaging carers and communities

**Action 3** Education systems should set strategic directions to address the disengagement and alienation from schools of carers of Aboriginal children in order to improve their involvement in their child's educational progress and their capacity to support their child's schooling. Schools must reach out to carers and communities proactively to:

- ◆ establish a relationship of trust with the community based on shared values, shared decision-making and expectations
- ◆ address issues surrounding carers' own poor experiences at school
- ◆ demonstrate the value and positive culture of schools
- ◆ actively promote the benefits education can provide to children
- ◆ provide opportunities for carers to obtain positive educational experiences
- ◆ demonstrate respect for Aboriginal people and culture
- ◆ eliminate racism in schools.

**Action 4** Programmes should be developed to set school, community and carer expectations for improving attendance at school and monitor their success.

### Improving educational outcomes

**Action 5** Education systems and health systems should work together to provide appropriate support and assistance to Aboriginal students with emotional or behavioural difficulties.

**Action 6** Substantial direction within the education system is now needed to target:

- ◆ explicit teaching of standard Australian English language features throughout all years at school
- ◆ strategies to identify and manage Aboriginal children who have speech and language impairments that interfere with learning
- ◆ development of appropriate educational risk-management strategies for Aboriginal students with emotional and behavioural difficulties, their implementation and reporting on their uptake and impact
- ◆ encouragement and support of the Vocational Education and Training (VET) sector in offering parent and family development curricula for Aboriginal students enrolled in VET
- ◆ mandatory participation in Aboriginal studies as part of pre-service training.



**SUMMARY OF RECOMMENDED ACTIONS** *(continued)*

## Improving culturally inclusive schooling

- Action 7** Practical steps that would represent meaningful progress in improving culturally inclusive schooling require:
- ◆ further development and implementation of a meaningful Aboriginal studies curriculum to increase the knowledge of all Australians about Aboriginal culture and history
  - ◆ setting the educational agenda for the development of a tolerant and inclusive society that is knowledgeable about, and respectful of, cultural difference
  - ◆ actively addressing racism in educational settings and institutions.

## Changes to programmes and funding arrangements

- Action 8** Addressing the findings of the WAACHS will require a re-engineering of education system programmes and direction of funds to ensure that greater proportions of young Aboriginal children enter kindergarten and pre-school with better levels of readiness to learn at school. In doing this, it would be prudent to re-direct some Australian and State government education funding towards early Aboriginal readiness-to-learn at school programmes and initiatives.
- Action 9** Based on the limited evidence from the strategic intervention projects that have been run over the last several years to address the educational needs of Aboriginal students, general programme resources should be developed and systematically trialled and refined in a coordinated strategy to develop clear programmes that can be implemented in all, or certainly the majority, of schools. These programmes can still contain the flexibility to be adapted to local circumstances.
- Action 10** A substantial proportion of programme funding should now be directed towards interventions in the primary school years and earlier. Under present funding arrangements, this will require a balancing of the proportion of funds directed towards secondary aspirational programmes against the need to significantly fund kindergarten, pre-primary and early school years efforts. Both strategies are needed. However, aspirational programmes alone cannot address the more fundamental need for substantial improvement in Aboriginal educational outcomes and educational capacity building within the Aboriginal population.
- Action 11** The AIEO strategy should be evaluated to identify barriers that prevent AIEOs from fulfilling their roles. AIEO efforts should be redirected towards supporting early primary school needs of Aboriginal children, and AIEOs should be provided with appropriate training and skills development opportunities to enable them to fulfil this role.
- Action 12** The cost, use and effect of homework classes should be evaluated with a view to establishing their educational efficacy and/or other benefits or unintended consequences.



## SUMMARY OF RECOMMENDED ACTIONS *(continued)*

- Action 13** The education system should undertake to estimate the level of financial and human resources over and above those available to all children that are specifically devoted to addressing and improving outcomes for Aboriginal students.

### Accountability of the education system

- Action 14** Given the magnitude of the potential benefits and savings likely to flow to governments, Aboriginal communities and society from improving the educational outcomes of Aboriginal children and young people, consideration should be given to the Auditor General conducting regular performance audits of the level of implementation and impact of programmes and strategies in Aboriginal education.

### Establishing an Aboriginal educational research agenda

- Action 15** A national research agenda into Aboriginal education outcomes should be developed that establishes a systematic, rigorous and sustained programme aimed at both charting progress in achieving improved educational outcomes for Aboriginal students and at developing and evaluating programmes and strategies that produce measurable improvements.



## INTRODUCTION

The findings reported in this volume are confronting evidence that the benefits of education remain poorly realised by most Western Australian Aboriginal children. While incremental improvement in Aboriginal school retention has occurred over the last decade, this belies the fundamental failure over the past 30 years to improve the educational outcomes of Aboriginal school children. The incremental improvements in Aboriginal participation in school fall well short of what is needed to close the gap between Aboriginal and non-Aboriginal educational outcomes. Without fundamental and radical educational reform, these disparities will continue and worsen. The move to extend compulsory education to include young people aged 16 years and 17 years, along with the need to equip students to participate in the emerging national and global knowledge-based economies, are forces that can be expected to further widen this disparity. The best that can be said at present is that there are now methods of annually measuring the extent of the educational disparity affecting Aboriginal children. However, what will prevent future readers from returning to this report to find this situation unchanged?

The survey is in a unique position to both more fully describe the prevalence and distribution of educational disadvantage among Aboriginal students, and to identify the reasons underlying the current poor performance of Aboriginal students. Some of the findings of the survey run counter to conventional wisdom and provide new learnings. As a result, there is an impetus to use the survey findings to create systemic change. The WAACHS represents a significant milestone in the delivery of data to meet information needs for and about Aboriginal students. With this evidence come expectations of actions and initiatives to address the difficulties that they describe.

## UNDERSTANDING THE CONTEXT IN WHICH EDUCATION OCCURS

Many of the problems associated with the disadvantages that Aboriginal people experience are now understood to have their origins quite early in life. Children born into disadvantage are far more likely to grow under-developed in both body and mind, and fail to acquire the skills and competencies needed for full social and economic participation. Recent insights from the neurosciences regarding the nature of early brain development show that the early years of life play a much more important role in shaping the subsequent course of children's lives than previously realised – particularly in how they affect adult health status and the development of cognitive, emotional and social abilities.<sup>2</sup> The experiences of children at home and in day care from birth to age of entry into kindergarten play a substantial role in their development, particularly in early cognitive and language development and in emotional and behavioural regulation. Young children who are well nurtured do better in school and develop the skills needed to take their place as productive and responsible adults.

These relationships are important for the actions that governments and communities take to ensure a fair start for all children. Nurturing children in their early years is vital for attacking the worst effects of disadvantage. Governments around the world are now seeking better ways to re-invest in their human service infrastructure to better meet the needs of children in order to bring about population-level improvements in health and human capability. The emerging consensus is that the greatest gains in overcoming disadvantage are likely to be achieved through universal preventions which give all children a better start in life. This is the preferred policy approach to reducing poverty being advocated by international agencies such as UNICEF and the World Bank and has been termed human development through early child development.<sup>3</sup>



## PROMPTS, FACILITATORS AND CONSTRAINTS OF DEVELOPMENT

Optimal developmental outcomes occur when children are able to regulate their emotions, engage in exploratory behaviour, communicate effectively, are self-directed, have intellectual flexibility, possess some degree of introspection, and possess self-efficacy in meeting life's challenges. The process of developmental change leading to social, civic and economic participation relies upon exchanges between the child's own talents and skills and those of parents, family, peers and teachers. There are important drivers that prompt, facilitate and constrain child development. These include:

### Developmental prompts

- ◆ Biology (e.g. birth weight and nutrition)
- ◆ Expectations
- ◆ Opportunities.

### Developmental facilitators

- ◆ Temperament and intellectual flexibility
- ◆ Good language development
- ◆ Emotional support, particularly in the face of challenge.

### Developmental constraints

- ◆ Stress that accumulates and overwhelms
- ◆ Chaos (frenetic activity, lack of structure, unpredictability)
- ◆ Social inequality
- ◆ Social exclusion.

These prompts, facilitators and constraints are discussed in detail in *Volume Two — The Social and Emotional Wellbeing of Aboriginal Children and Young People*.<sup>4</sup>

This human development model needs to be interpreted in the light of the specific circumstances of Aboriginal people. For instance, the historic exclusion of Aboriginal children from education in Australia is a constraint on development when the educational disadvantage resulting from exclusion is handed down from one generation to the next.

Children spend a significant proportion of their time in educational settings. Education systems have a significant opportunity to ensure that all of these drivers are addressed in delivering educational experiences to children and young people. Developmental resources for children within schools include the resources of teachers and other students. These resources define the variety and sophistication of expectations and opportunities for children. Principal's and teacher's leadership and expectations of achievement and orderliness create stability, transmit social norms and expectations, and produce better levels of achievement.<sup>5</sup>



Findings on the physical health and the social and emotional wellbeing of Aboriginal children and young people have been reported in the previous two volumes.<sup>4,6</sup> Selected findings from these volumes that are relevant to the context of education need to be reiterated:

- ◆ Compared with the general population, carers of Aboriginal children have lower levels of education. About one-third of carers of Aboriginal children left school prior to the completion of Year 10.
- ◆ Amid a significantly higher rate of unemployment for Aboriginal people, employment that is available and undertaken is generally at a lower level of occupational skill and qualification.
- ◆ Nearly one in four Aboriginal children (24 per cent) are at high risk of clinically significant emotional or behavioural difficulties. These difficulties are associated with a substantial educational burden.

This combination of circumstances not only creates impoverishment of the wherewithal to raise children, but also compromises the very basis of human, psychological and social capital that forms the wider pool of resources essential for child growth and development. These circumstances are limiting the capabilities of Aboriginal children both on entry to kindergarten and onward through their formal education. Improving the educational prospects for Aboriginal children is contingent on how systems, including the education system, respond by developing programmes, interventions and policies that effectively redress this.

## DIRECTIONS IN POLICY AND REPORTING FRAMEWORKS AFFECTING ABORIGINAL EDUCATION

A broad range of child, parent, family and school factors have been shown to be independently associated with educational outcomes. While there is much that schools can and should be doing to better meet the needs of Aboriginal students and their families, the survey findings make it clear that schools cannot be expected to do this alone. Meaningful improvement in Aboriginal educational outcomes requires policy, service delivery and community action informed by an understanding of some of the key processes of human development.

Successive Australian and State Governments have sought to implement more co-ordinated, whole-of-government approaches to support children's early development. The Australian Government is developing a *National Agenda for Early Childhood*.<sup>7</sup> The Western Australian Government has released its *Children First Strategy* (2004) which has involved the Department of the Premier and Cabinet leading the development of a policy agenda to raise community awareness of the importance of early child development and to bring about more integrated focus of policy and programmes across the human service departments of government.<sup>8</sup> The first phase of the Strategy's implementation has focused on working with local families and communities to support them to identify their priorities and develop a plan to improve the wellbeing of children. The next phase of the strategy will focus on coordinating policies and programmes across department and community organisations so that they can work in harmony.

This strategy has gone some way towards articulating a more coherent focus for existing programmes for children and families. However, to date the priority given to implementing the Strategy, as reflected in levels of new investment and redirection of



existing funding, is significantly short of what is required to address the up-stream drivers of disadvantage for Aboriginal and non-Aboriginal children.

An important recent Australian whole-of-government initiative informed by the perspective of human development through child development is the *Overcoming Indigenous Disadvantage* reporting framework.<sup>9</sup> This reporting framework represents an important advance in which both the form and content of policy are directed at improving Aboriginal circumstances. Its endorsement by the Council of Australian Governments marked the commitment of Australian governments to tackle the root causes of the disadvantages that Aboriginal people experience and monitor the outcomes in a systematic way that crosses jurisdictional and portfolio boundaries.

*Overcoming Indigenous Disadvantage* is a framework to drive change. Its reporting criteria include three inter-related priority outcome areas required to sustain human and community development:

- ◆ Safe, healthy and supportive family environments with strong communities and cultural identity
- ◆ Positive child development and prevention of violence, crime and self-harm
- ◆ Improved wealth creation and economic sustainability for individuals, families and communities.

The priority outcomes are underpinned by two further tiers of indicators:

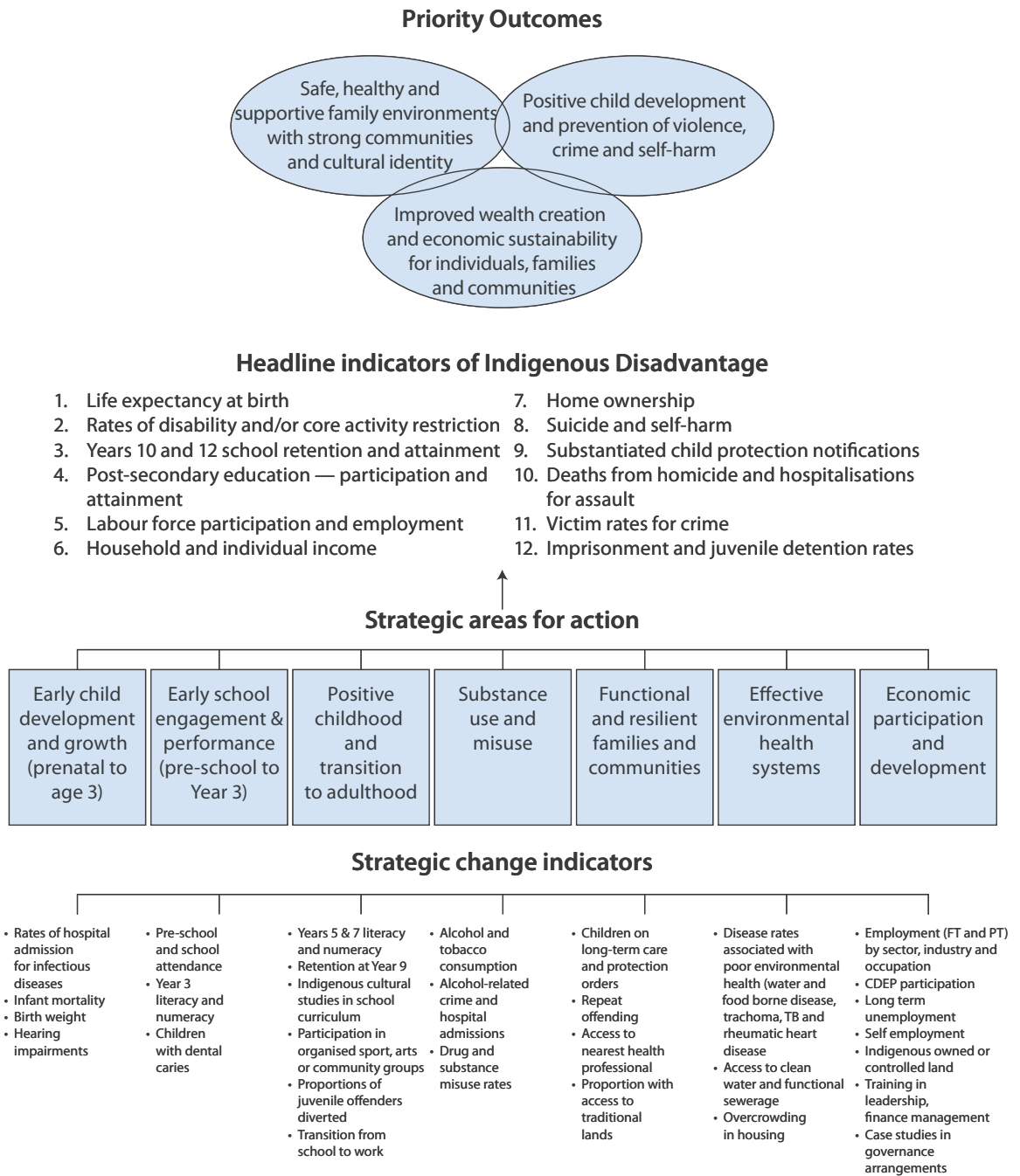
- ◆ a first tier comprising twelve longer term ‘headline’ indicator measures of major social and economic factors that need to improve if the vision is to be achieved.
- ◆ a second tier comprising a set of seven key areas for action and their associated strategic change indicators (Figure 9.1).

These indicators were selected to be of relevance to all governments and Aboriginal stakeholders and because of their capacity to demonstrate the impact of programmes and policy interventions in the short (18 months) to medium term (5 years).

The *Overcoming Indigenous Disadvantage* reporting framework is based on a model of human development that emphasises the pivotal role of education in reducing long term disadvantage of Aboriginal peoples. At the same time, improvements in headline indicators of educational disadvantage also depend on strategic action in other areas such as early childhood and health services, housing, family and parenting support. In addressing the headline indicators, the content of policies and programmes should be focused upon the prompts, facilitators and constraints of human development. These are the major factors for which there is a robust evidence-base to guide the selection of interventions that offer the greatest leverage for change.



**FIGURE 9.1: FRAMEWORK FOR OVERCOMING INDIGENOUS DISADVANTAGE**



Source: Steering Committee for the Review of Government Service Provision.<sup>9</sup>





## KEY FINDINGS FOR EDUCATION

The key findings of this volume may be summarised as follows:

- ◆ Aboriginal children are performing far worse at school than non-Aboriginal children. Some 57 per cent of Aboriginal children had low academic performance compared with 19 per cent of all children. Aboriginal children missed a median of 26 days of school per year compared with 8 days for all children.
- ◆ Educational disparities in school performance between Aboriginal and non-Aboriginal children are larger than health and mental health disparities.<sup>4,6</sup> For example, about 13 per cent of non-Aboriginal children are born with sub-optimal fetal growth compared with 21 per cent of Aboriginal children, a disparity of 8 percentage points. About 15 per cent of non-Aboriginal children have a clinically significant emotional or behavioural problem compared with 24 per cent of Aboriginal children, a disparity of 9 percentage points. Disparities in education measures are on the order of 30 to 40 percentage points regardless of the measure used for the estimate.
- ◆ Educational disparity is evident from the earliest years of school and it affects Aboriginal children living across all levels of relative isolation.
- ◆ While the proportion of all children who fail to meet the minimum academic benchmarks increases with year of enrolment, among Aboriginal children the proportion is much higher, and the longer they are at school, the wider the disparity grows.
- ◆ No obvious progress has been made over the past 30 years to effectively close these disparities.
- ◆ The three main independent factors contributing to poor academic performance among Aboriginal students are the lower levels of academic achievement of carers of Aboriginal students, the higher rates of absence from school, and the higher proportions of Aboriginal students at moderate and high risk of clinically significant emotional or behavioural difficulties.
- ◆ Poor school performances are being passed down generationally. In population terms, so few Aboriginal children are succeeding at school that little or no effect is likely to be readily observed for several generations.
- ◆ Carers of Aboriginal students reported being happy with the job schools were doing, and almost all carers reported that schools were approachable. However, carers of almost half the students reported that their children were doing OK at school when the child's teacher rated them as having low academic performance.
- ◆ What education systems are presently doing to improve educational outcomes of Aboriginal children is not working because the drivers of educational disparity are not being addressed.



## ACTIONS NOW NEEDED TO IMPROVE EDUCATIONAL OUTCOMES FOR ABORIGINAL CHILDREN

### ACTIONS TO IMPROVE READINESS TO LEARN AT SCHOOL

A very large percentage of Aboriginal children enrol in both kindergarten and pre-school in the years they become eligible.<sup>8</sup> Year 1 teachers inherit the graduates of kindergarten and pre-school and the survey findings show that too many Aboriginal children have excessively low levels of readiness to learn at school on arrival into Year 1.

All children enter school with a range of knowledge and skills acquired at home and through their experiences in other settings. However, they differ from one another in their readiness to access what the formal school environment can offer their onward learning. For some Aboriginal children, the transition into school education presents a number of special challenges including English as a second (or even a third) language to the one usually spoken in the home. For others, the knowledge and skills they have acquired through 'bush' learning or storytelling within the family may not be recognised or adequately valued in the classroom setting. This is as much a matter of the school's readiness for Aboriginal children as it is a matter of children's readiness for learning at school.

Children's chances of favourable educational progress are greatly enhanced when their early life experiences enable them to enter primary school equipped with good physical health, the ability to concentrate and follow directions with age-appropriate language development and basic pre-literacy skills such as showing an interest in books and stories, being able to count, identify and/or attach sounds to some letters or write their name. The available evidence shows that significant improvements in long term education outcomes can be achieved through community supports and programmes and services for young children and their families which are designed to facilitate these aspects of early child development.<sup>10</sup>

Neither the size of the educational disparity between Aboriginal and non-Aboriginal children on entry to school, nor the fact of its widening with advancing education, is being matched with educational curricula or programmes that are of sufficient developmental focus, intensity and duration and aimed at the appropriate developmental skill levels of most Aboriginal children who are commencing formal education.

#### Action 1

Education systems should implement educational programmes and curricula based on developmentally appropriate, evidence-based practices that support Aboriginal children in the early primary school years.

Educational disparity is measurable on entry into compulsory schooling. In assessing the actions needed to improve the likelihood that more Aboriginal children will be better able to learn at school, education systems have a responsibility to adopt a leadership position in pressing for greater focus on the prompts, facilitators and constraints of development in the delivery of programmes from other human service sectors such as health and family and community services. A continued debate about jurisdictional authority, particularly for child care on the one hand and education on the other, simply avoids the need for education systems to adopt a leadership role and to call for and direct change in securing a developmentally appropriate focus



in programmes offered to very young children, pre-schoolers, and children in their primary school years. Education systems also must develop, promote and implement developmentally appropriate practices that will enhance readiness for learning at school in Aboriginal children who are in early child care settings – whether these be at home, playgroup, day care or kindergarten settings.

## Action 2

Education systems should work with other relevant family and human services agencies to provide educational day care and child development experiences for young Aboriginal children to better prepare them for learning. This should take the form of:

- ◆ early childhood education and developmentally appropriate readiness to learn programmes for toddlers in home care, day care, play groups and other settings
- ◆ language and cognitive enrichment programmes at kindergarten and pre-school.

## BENEFITS OF MORE THAN ONE YEAR OF EARLY CHILDHOOD EDUCATION

Maximising children's exposure to high quality early childhood education (kindergarten and pre-school) facilitates their readiness for school learning and later academic success.<sup>11,12</sup> This is demonstrated in the findings from 43 OECD countries participating in the *2003 Program for International Student Assessment (PISA)*, which showed that, after taking into account socioeconomic factors, children who attend pre-school for more than a year showed a significant performance advantage in later school achievement than those with less pre-school attendance.<sup>13</sup> Provision for the universal availability of more than one year of early childhood education is now being recognised by governments around the world as an investment and not a cost. Good quality early childhood education programmes explicitly address the prompts, facilitators and constraints of development and have appropriately skilled and qualified staff and staff-child ratios. These programmes not only enhance the lives of children and their families, they also deliver significant long term benefits to schools, society and the economy.

A recent study of the medium-term benefits of children's participation in well-resourced, good quality early childhood education programmes for two years showed that they are associated with substantial savings in other areas of education spending resulting from the reduced need for special education; prevention of grade repetition; improvement in educational productivity; and enhancement of children's emotional and behavioural wellbeing.<sup>14</sup> Over and above the long term economic and social benefits, between 41 per cent and 62 per cent of the initial investments in early childhood education would be recovered by medium-term savings elsewhere in the education system.



## ACTIONS TO ENGAGE CARERS AND COMMUNITIES

The survey findings reveal substantial disengagement and alienation of carers from schools. This is measured by carers' low levels of knowledge about the academic progress of their children in school despite their high degree of happiness with what the schools are doing. Addressing this will require setting strategic directions to address Aboriginal carer disengagement and alienation from schools and to improve carer awareness of their child's educational progress and their capacity to support their child's schooling.

This will also require more than creating a welcoming environment in schools and having parent committees. Schools must proactively reach out to carers and communities to build strong relationships. Responsibility for community engagement should not merely be delegated to Aboriginal and Islander Education Officers (AIEOs), but should be a shared responsibility of all school staff, and driven by the most senior staff within schools.

### Action 3

Education systems should set strategic directions to address the disengagement and alienation from schools of carers of Aboriginal children in order to improve their involvement in their child's educational progress and their capacity to support their child's schooling. Schools must reach out to carers and communities proactively to:

- ◆ establish a relationship of trust with the community based on shared values, shared decision-making and expectations
- ◆ address issues surrounding carers' own poor experiences at school
- ◆ demonstrate the value and positive culture of schools
- ◆ actively promote the benefits education can provide to children
- ◆ provide opportunities for carers to obtain positive educational experiences
- ◆ demonstrate respect for Aboriginal people and culture
- ◆ eliminate racism in schools.

There is no evidence that there has been any change over the past 10 years in the attendance rates of Aboriginal children. Neither is there evidence that small-scale local solutions to poor attendance are sustainable in the long run or transferable to other settings. Patterns of, and associations with, poor attendance are documented in this volume. While complex, they are addressable. Attendance rates of Aboriginal children should be used as one of a range of indices of progress in establishing educational equity for Aboriginal children.

### Action 4

Programmes should be developed to set school, community and carer expectations for improving attendance at school and monitor their success.



## ACTIONS TO IMPROVE EDUCATIONAL OUTCOMES OF ABORIGINAL CHILDREN

The high proportion of Aboriginal students at moderate and high risk of clinically significant emotional or behavioural difficulties and the strong link between these difficulties and poor attendance and academic performance makes it very important for education systems, health systems and family services systems to work together to provide appropriate support and assistance to students with emotional or behavioural difficulties. As documented in Volume Two, almost one quarter of Aboriginal children were at high risk of clinically significant emotional or behavioural difficulties, and very few of these children have been in contact with Mental Health Services in Western Australia.<sup>4</sup>

### Action 5

Education systems and health systems should work together to provide appropriate support and assistance to Aboriginal students with emotional or behavioural difficulties.

However, the education system cannot be complacent in assuming that its call to other sectors for improved treatment and management services for children and young people with emotional or behavioural difficulties will result in meaningful levels of resources being devoted to this by other sectors. The education system must develop appropriate supports for Aboriginal students with emotional or behavioural difficulties, implement them, and report on their uptake and impact.

The teaching of curricula that support good speech and language development generally and the teaching of standard Australian English specifically should produce substantial educational progress for Aboriginal children. Children who speak English as a second language (ESL) and children who speak English as a second dialect (ESD) (i.e. children whose first language is Aboriginal English) perform similarly poorly when compared with Aboriginal students for whom English is their first language. While there may be pedagogic differences in the teaching and learning requirements for ESL and ESD students, both of these groups will require the direction of considerable funding and resources to meet their needs.

While the WAACHS data do not directly inform the issue of teacher training in Aboriginal Studies, it is the case that not all teachers are taught about Aboriginal Australia or about how to teach Aboriginal students. Many of the improvements the survey data suggest are reliant upon teachers being trained and confident to work with Aboriginal students and to be knowledgeable about Aboriginal Australia. Australian research shows that teachers who had undertaken Aboriginal Studies subjects are more likely to perceive themselves as knowing more about the subject matter in relation to Aboriginal history, current issues, pedagogy for teaching Aboriginal Studies, and about teaching Aboriginal students. They also have higher self-concepts in regard to their self-perceptions of their: knowledge of Aboriginal Studies subject matter; knowledge of how to teach Aboriginal Studies; and overall perceived ability to teach Aboriginal Studies and to teach Aboriginal students effectively. These studies also enhance their enjoyment of the teaching experience.<sup>15</sup>



**Action 6**

Substantial direction within the education system is now needed to target:

- ◆ explicit teaching of Standard Australian English language features throughout all years at school
- ◆ strategies to identify and manage Aboriginal children who have speech and language impairments that interfere with learning
- ◆ development of appropriate educational risk-management strategies for Aboriginal students with emotional and behavioural difficulties, their implementation and reporting on their uptake and impact
- ◆ encouragement and support of the Vocational Education and Training (VET) sector in offering parent and family development curricula for Aboriginal students enrolled in VET.
- ◆ mandatory participation in Aboriginal studies as part of pre-service training.

The survey findings highlight several factors that do not show strong relationships with educational outcomes for Aboriginal children despite common wisdom that they are important factors with associated programmes implemented through schools. These include:

- ◆ The lack of direct association between hearing problems and educational outcomes. Conductive hearing loss impacts upon both social and emotional wellbeing and speech and language development.<sup>4,6</sup> While all children deserve to have any hearing difficulties treated, hearing management programmes alone offer little prospect for improving overall educational outcomes for Aboriginal students. Nevertheless, schools may be best placed to identify hearing problems, and hearing management programmes may be best run through schools.
- ◆ The lack of direct association between diet and nutrition and educational outcomes. Proper diet and adequate nutrition are important for healthy development and good health in adult life. School breakfast and lunch programmes may offer important health and mental health benefits to Aboriginal children and young people. However, survey findings do not support the notion that school nutrition programmes are likely to achieve gains in academic performance or attendance at school.

**ACTIONS FOR IMPROVING CULTURALLY INCLUSIVE SCHOOLING**

In their preface to this volume, Milroy and Milroy state that '[Aboriginal education] is not just about Aboriginal people but what everyone learns about Aboriginal people from Australian education systems (at all levels)'. This volume has as its focus the education of Aboriginal children and young people. This focus on the individual circumstances of children and their families runs the risk of creating a general view of a 'deficit model' in which educational outcomes are seen to merely reflect deficits in the children and their families. In this model, accountability (or blame) for progress is sheeted back to individual children and their families. It would be difficult to reconcile the survey findings against the claim that these have as their basis or origin, deficits in Aboriginal children and their families. Education systems have failed Aboriginal people. Neither the fact of colonisation nor onward policies that promulgated forced separation of children from families, assimilation, or self-determination have seen



education systems in a neutral role. Through the policies and practices of each of these administrative epochs, education played a role that has historically resulted in greater exclusion, rather than inclusion, of Aboriginal people in education.

In addition to the many disadvantages that Aboriginal people face, cultural influences play an important role in shaping the learning outcomes of Aboriginal students. While this is clearly evident in the more isolated areas of the State, it is also relevant to Aboriginal students attending schools in metropolitan or regional areas. In response to this perceived need, the development of practical strategies for culturally inclusive schooling has been a major focus of Aboriginal education policy over the past two decades. This culminated in the MCEETYA *National Statement of Principles and Standards for More Culturally Inclusive Schooling in the 21st Century*<sup>16</sup> and its endorsement by state, territory and Australian Government ministers in 2000.

This statement of principles and standards has provided a framework to initiate policies for creating more culturally secure teaching and learning environments and has highlighted the importance of policy and strategies to address discriminatory practices (such as lower expectations) antithetical to the learning and participation of Aboriginal students.

#### Action 7

Practical steps that would represent meaningful progress in improving culturally inclusive schooling require:

- ◆ further development and implementation of a meaningful Aboriginal studies curriculum to increase the knowledge of all Australians about Aboriginal culture and history
- ◆ setting the educational agenda for the development of a tolerant and inclusive society that is knowledgeable about, and respectful of, cultural difference
- ◆ actively addressing racism in educational settings and institutions.

### CHANGES TO PROGRAMMES AND FUNDING ARRANGEMENTS

#### Action 8

Addressing the findings of the WAACHS will require a re-engineering of education system programmes and direction of funds to ensure that greater proportions of young Aboriginal children enter kindergarten and pre-school with better levels of readiness to learn at school. In doing this it would be prudent to re-direct some Australian and State government education funding towards early Aboriginal readiness-to-learn at school programmes and initiatives.

The current Australian Government approach of bypassing jurisdictions and working directly with individual schools is laudable in its flexibility to adapt solutions to the specific circumstances of each location. However, this strategy is flawed in that:

- ◆ programmes that are developed are often too specific to be transferred to other schools
- ◆ trials are too small to demonstrate outcomes



- ◆ individuals with motivation and special skills are too heavily relied upon in the absence of effective mechanisms for programme sustainability
- ◆ there is an unrealistic expectation of people at the local level to find solutions to problems for which no-one currently knows the answer
- ◆ programmes often only address part of a problem and consequently fail to be successful because they are defeated by other issues not covered by the programme
- ◆ it offers no coordinated or systematic approach to developing solutions.

Many of the projects funded under Indigenous Education Agreements (IEA) and other initiatives are reported to show great promise, but there is no evidence that any have migrated from the trial schools to wider settings. For example, the efforts involved in producing the *What Works* reports and web site have been undermined by the lack of a coordinated approach to designing the projects in the first place. The result is a set of resources that fail to make clear what does work and how to apply it in a school.

### Action 9

Based on the limited evidence from the strategic intervention projects that have been run over the last several years to address the educational needs of Aboriginal students, general programme resources should be developed and systematically trialled and refined in a coordinated strategy to develop clear programmes that can be implemented in all, or certainly the majority, of schools. These programmes can still contain the flexibility to be adapted to local circumstances.

The survey did not collect sufficient data to enable a thorough evaluation of all educational programmes currently targeted at improving outcomes for Aboriginal students. However, the survey findings do identify several specific issues of relevance to current programmes.

### Secondary school aspirational programmes

Aspirational programmes, such as *Follow The Dream*, represent major current initiatives that consume a large proportion of the specific programme resources aimed at Aboriginal students. The survey findings highlight how few Aboriginal students are currently eligible for these programmes, given the high numbers of Aboriginal students that fall behind academically prior to Year 7. Moreover, the high proportion of Aboriginal students who fall behind in their school during the primary school years highlights the low level of success that interventions left to the secondary school years are likely to have. The overwhelming bulk of the education literature in the area of remedial teaching emphasises the need to intervene early as soon as problems occur, while showing the low rate of success of remedial programmes once students fall more than a year behind in their school work.





**Action 10** A substantial proportion of programme funding should now be directed towards interventions in the primary school years and earlier. Under present funding arrangements, this will require a balancing of the proportion of funds directed towards secondary aspirational programmes against the need to significantly fund kindergarten, pre-primary and early school years efforts. Both strategies are needed. However, aspirational programmes alone cannot address the more fundamental need for substantial improvement in Aboriginal educational outcomes and educational capacity building within the Aboriginal population.

### The role of the AIEO

The presence of AIEOs (and Aboriginal Teaching Assistants) in schools has no positive benefit on the academic performance of Aboriginal students, and has a negative effect on attendance patterns. These findings suggest that:

- ◆ the presence of an AIEO in a school must be accompanied by substantial system and school changes in addressing the needs of Aboriginal students – the presence of an AIEO is not a substitute for this
- ◆ the role and duties of AIEOs and their professional development generally should be reviewed
- ◆ training and support of AIEOs to give this position a properly defined educational focus is essential
- ◆ direction of the AIEO workforce may be best positioned to support key learning, including literacy, in the early primary school years.

**Action 11** The AIEO strategy should be evaluated to identify barriers that prevent AIEOs from fulfilling their roles. AIEO efforts should be redirected towards supporting early primary school needs of Aboriginal children, and AIEOs should be provided with appropriate training and skills development opportunities to enable them to fulfil this role.

### Homework classes

As reported in Chapter 6, the survey data show that homework classes are associated with poor outcomes in school performance.

**Action 12** The cost, use and effect of homework classes should be evaluated with a view to establishing their educational efficacy and/or other benefits or unintended consequences.



### Resources devoted to Aboriginal education

In 1998, the National Centre for Epidemiology and Population Health produced a report detailing health service use and expenditures on health services for Aboriginal and Torres Strait Islander People.<sup>17</sup> The analysis was subsequently repeated by the Australian Institute of Health and Welfare in 2001.<sup>18</sup> The report was useful in dispelling myths surrounding the extent of health services expenditure for Aboriginal people, and provided a basis for comparing service use and expenditure for Aboriginal people with service use and expenditure for all Australians.

In producing this volume, it became clear that not only was no equivalent information available concerning use of expenditure on educational services for Aboriginal people, there was no ready way of approximating relative expenditure from financial information provided by governments. Were such information available, it would be useful in not only quantifying relativities in use of, and expenditure on, educational services, it would serve as a useful benchmark of funding for educational services compared with need.

**Action 13** The education system should undertake to estimate the level of financial and human resources over and above those available to all children that are specifically devoted to addressing and improving outcomes for Aboriginal students.

## ACCOUNTABILITY OF THE EDUCATION SYSTEM

**Action 14** Given the magnitude of the potential benefits and savings likely to flow to governments, Aboriginal communities and society from improving the educational outcomes of Aboriginal children and young people, consideration should be given to the Auditor General conducting regular performance audits of the level of implementation and impact of programmes and strategies in Aboriginal education.

## FUTURE RESEARCH INTO EDUCATIONAL OUTCOMES OF ABORIGINAL STUDENTS

There is an immense body of educational research informing the practice of education. Yet, amid this abundance, there is a dearth of adequately designed, implemented and interpreted educational research specifically addressing the Australian Aboriginal circumstance. Moreover, what little there is would appear to have resulted in negligible benefit to the Aboriginal population. It is small wonder that Aboriginal people direct scepticism if not hostility toward the money spent on Aboriginal research and instead focus upon tangible funds and services for Aboriginal children.

Many of the very educational benefits enjoyed by all Australian children have been built upon the foundations of educational research applied over time in real world settings. These are benefits that are accepted as part of the basis of education and that underpin educational practices and the outcomes they deliver. Few question the efficacy or importance of high quality educational research for the benefits it delivers to children, families, communities and nations. While individual studies and selected



research findings will always be disputed or scrutinised, the prevailing overall benefit of rigorous educational research is undeniable.

At present there is a plethora of untested ‘good ideas’ projects failing to deliver any evidence of effectiveness or sustainability in the absence of a research effort aimed at producing findings more broadly generalisable across educational settings and able to capitalise upon flexible delivery. What this highlights is the near total absence of any serious quantitative research approach to understanding Australian Aboriginal education. By ‘serious’, we mean systematic, rigorous, powerful, and sustained research directed at developing measures, using them to test and evaluate educational programmes, specific methods, and interventions, and to chart policy progress in achieving educational outcomes for Aboriginal children. Where else will education systems develop the capacity to do this if not through the research effort? <sup>19</sup>

#### Action 15

A national research agenda into Aboriginal education outcomes should be developed that establishes a systematic, rigorous and sustained programme aimed at both charting progress in achieving improved educational outcomes for Aboriginal students and at developing and evaluating programmes and strategies that produce measurable improvements.

Good and abundant research is necessary, but not sufficient, to promote change. The translation of research into policy remains a significant challenge across a wide range of research and policy domains (see commentary box entitled *Translating research into policy and practice*). The WAACHS has been developed with the support and input from education systems over a period of several years. While it is hoped that this involvement will increase understanding and use of these findings, and deepen researchers’ appreciation of the environment in which educational policy and practice occurs, there are nonetheless factors that threaten the uptake of these research findings into policy and practice. An appreciation of this has resulted in greater attention to communication and dissemination strategies associated with the WAACHS findings.

### TRANSLATING RESEARCH INTO POLICY AND PRACTICE

The movement of research into policy has generally been dominated by the view that researchers and policy makers comprise two fundamentally different communities and that mechanisms that bridge these communities and create a cycle of knowledge development and exchange are needed to enable the uptake and translation of research.<sup>20,21</sup> This requires political will and leadership, structures for better communication and exchange, and individuals in both research and policy settings who are trained to bridge ‘the two communities’.

While this sounds reasonable, the general lack of evidence that this regularly happens would suggest weaknesses in this line of thinking.<sup>22</sup> Lin notes several potential pitfalls in the assumptions underlying research-to-policy transfer and cites Peterson’s call for substantive and situational social learning among players (e.g. researchers, interest groups, bureaucrats and politicians) suggesting that policy

*Continued . . .*



**TRANSLATING RESEARCH INTO POLICY AND PRACTICE** *(continued)*

outcomes will depend on ‘mechanisms for policy and research governance’.<sup>23</sup> While undefined, these governance mechanisms will, of necessity, require cross-sectoral (e.g. agency/bureaucracy, government/non-government/private) engagement in the search for, and establishment of, similarities in their views of human health and human development.

Merely presenting new data and ‘facts’ is unlikely to produce much policy change. This is because the communication of ideas (rather than just ‘facts’ or data) is central to policy change. Lavis (1998) notes that ideas can be used to set new goals and determine new political strategies or alternately they can be used as rhetorical camouflage for existing goals and strategies.<sup>24</sup> Moreover, the political environment that receives ideas may be one characterised either by learning or conflict-resolution. These orientations to ideas are not ‘fixed’ and they change over time and may vary from topic to topic or portfolio to portfolio.

Are there specific actions that researchers should take to improve the likelihood that findings will result in change? Reviews and studies of the effectiveness of research transfer generally indicate the following:

- ◆ research-to-policy translation occurs more effectively when findings are translated into clear messages associated with actions
- ◆ messages must be tailored to specific target audiences and fine-tuned to the decisions and environments in which decision-making is carried out
- ◆ the credibility of the messenger is likely to be an important factor in the success of translation to policy
- ◆ interactive engagement of the target audience is more effective, particularly where reciprocal feedback between the researcher(s) and the target audience occurs over several occasions rather than just once.<sup>25</sup>

**CONCLUSION**

These concluding comments are written from the perspective of the Aboriginal people within the Kulunga Research Network who have been involved in the planning and implementation of this survey and the maintenance of the cultural integrity of the process.

Our intention in becoming involved in the survey was to get the undeniable evidence on the current situation of our families and the needs of our children and young people so that we could not only inform our families of these facts but, equally, provide the Australian and State Governments with findings that would evoke a full recognition of these circumstances and supply an evidence-base for action.

The work published in each volume of the WAACHS findings is complex, comprehensive and based upon rigorous scientific research processes. We needed a state wide view that ensured that the diversity of our communities and their voices was captured and reflected in a way that allowed each of the stories to be told in its own right.



While at one level the findings appear to reflect what we knew or suspected, the richness of the data and their analyses has enabled a holistic appreciation of the full meaning of the findings. In communicating the results of each of the preceding volumes to our communities and other relevant stakeholders in regional forums, they have challenged us to provide solutions to the issues identified, or to at least offer some directions on what government or workers within agencies should do in light of the findings.

Our initial response in providing this direction is that we collectively are not able to make the sustainable gains in health, education and socioeconomic wellbeing, relative to our non-Aboriginal peers or at all, because fundamental issues are not being addressed through our current approaches which are linked to our common history and, with some sadness, could be the predictors of our common future. This is no longer solely an Aboriginal problem, if it ever was. It is, and always was, an Australian tragedy being played out in our time.

The normal response in these situations is to square off and drop into respective roles for the blame game. We acknowledge that we will need to work through the issues from our respective ends – but if the approach is not premised on improving the circumstances of Aboriginal children and young people then we, as the responsible adults (regardless of our representations), will follow a well worn path that arrives at a familiar cul-de-sac where we fail to achieve the objective. It will be somebody else's fault, or limited by the way of resources, capacities or simply through the lack of political will. We will all be held responsible for the outcomes that result from our action or inaction from the decisions that we make in the positions we now hold – just as our forbears left us a legacy, so will we, for our children and their children.

The next steps we take are not set in concrete. We all need to acknowledge that we will all make mistakes. The fear of doing this in the past has limited our ability to work together usually with the Aboriginal side hunting down non-Aboriginal people when they get the process wrong, and with the non-Aboriginal side reducing the size of the target to avoid being tagged. Equally, to merely read this as a call for better administration of government and community resources under a 'we'll do this for you- if you do that' approach (because one party has the power to coerce the other) misses the foundation and basis of Aboriginal culture in its business within other communities and with the broader society – the development of trusted power sharing relationships. It also simplifies, or ignores at its own peril, the legacy of previous policies designed to control Aboriginal families.

The findings of this volume and the recommendations contained within this final chapter leave all parties with no place to hide. To continue to neglect the circumstances that have contributed to this totally unacceptable state of affairs in the education of Aboriginal children will require a comprehensive review of the current approach. The findings of the WAACHS can and should provide the basis for an evidence-based approach for future directions.

In responding to requests from the participants at our WAACHS Regional Forums regarding the implications for action of the survey findings, we would say to them that to fail to act completely on the findings of this volume would be to continue to maintain Aboriginal people as second class citizens without the opportunity to reach our full potential and to make a contribution to better ourselves, our families and the broader society. There is no scope to endure another 30 years of similar educational outcomes. To continue on the same course, to ignore the evidence and recommendations, would be an abrogation of responsibility.



## ENDNOTES

1. Fukuda-Parr S. Rescuing the human development concept from the HDI: Reflections on a new agenda. In: Fukuda-Parr S, Shiva Kumar AK, editors. *Readings in human development: Concepts, measures and policies for a developmental paradigm*. New Delhi: Oxford University Press; 2003.
2. Keating D, Hertzman C, editors. *Developmental health and the wealth of nations: Social, biological and educational dynamics*. New York: Guilford Press; 1999.
3. Young ME, editor. *From early child development to human development: Investing in our children's future*. Washington DC: World Bank; 2002.
4. Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, De Maio JA, Cox A, Li J. *The Western Australian Aboriginal Child Health Survey: The social and emotional wellbeing of Aboriginal children and young people*. Perth: Curtin University of Technology and Telethon Institute for Child Health Research; 2005.
5. Zubrick SR, Silburn SR, Prior MR. Resources and contexts for child development: Implications for children and society. In: Prior MR, Richardson S, editors. *No time to lose. The well-being of Australia's children*. Carlton: Melbourne University Press; 2005. p. 161–200.
6. Zubrick SR, Lawrence DM, Silburn SR, Blair E, Milroy H, Wilkes E, Eades S, D'Antoine H, Read A, Ishiguchi P, Doyle S. *The Western Australian Aboriginal Child Health Survey: The health of Aboriginal children and young people*. Perth: Telethon Institute for Child Health Research; 2004.
7. Australian Government Department of Family and Children's Services. *The national agenda for early childhood: A draft framework*. Canberra: Australian Government Department of Family and Children's Services; 2004.
8. Department of the Premier and Cabinet. *Western Australia's children first strategy*. Perth: Government of Western Australia; 2004.
9. Steering Committee for the Review of Government Service Provision. *Overcoming Indigenous disadvantage: Key indicators 2005*. Canberra: Productivity Commission; 2005.
10. Kohen DE, Hertzman C, Willms JD. The importance of quality child care. In: Willms JD, editor. *Vulnerable children: Findings from Canada's National Longitudinal Study of Children and Youth*. Alberta: University of Alberta Press; 2002.
11. Organisation for Economic Co-operation and Development. *Starting strong: Early childhood education and care*. Paris: Organisation for Economic Co-operation and Development; 2001.
12. Ramey CT, Ramey SL. Early learning and school readiness: Can early intervention make a difference? *Merrill-Palmer Quarterly* 2004;50:471–91.
13. Organisation for Economic Co-operation and Development. *Learning for tomorrow's world: First results from PISA 2003*. Paris: Organisation for Economic Co-operation and Development; 2004.
14. Belfield CR. *Early childhood education: How important are the cost-savings to the school system?* New York: Teachers College, Columbia University; 2004.
15. Deeble J, Mathers C, Smith L, Goss J, Webb R, Smith V. *Expenditures on health services for Aboriginal and Torres Strait Islander people*. Canberra: Australian Institute of Health and Welfare (Catalogue No. HWE 6); 1998.
16. Ministerial Council on Education, Employment, Training and Youth Affairs. *National statement of principles and standards for more culturally inclusive schooling in the 21st century*. [Online] MCEETYA; 2000; [cited 2005 Nov 11]; Available from: URL: <http://www.mceetya.edu.au/pdf/principl.pdf>
17. Australian Institute of Health and Welfare. *Expenditures on health services for Aboriginal and Torres Strait Islander people 1998–99*. Canberra: Australian Institute of Health and Welfare (Catalogue No. IHW 7); 2001.
18. Craven RG, Halse C, Marsh HW, Mooney J, Wilson-Miller J. *Teaching the teachers Aboriginal studies: Impact on teaching*. Canberra: Commonwealth of Australia; 2005.



19. Mellor S, Corrigan M. *The case for change: A review of contemporary research on Indigenous education outcomes*. Camberwell: Australian Council for Educational Research; 2004.
20. Innvaer S, Vist G, Trommald M, Oxman A. Health policy-makers' perceptions of their use of evidence: a systematic review. *Journal of Health Services Research Policy* 2002;7:239-44.
21. Lomas J. *Improving research dissemination and uptake in the health sector: beyond the sound of one hand clapping*. Hamilton: McMaster University Centre for Health Economics and Policy Analysis; 1997.
22. Peterson MA. The limits of social learning: Translating analysis into action. *Journal of Health Politics, Policy and Law* 1997;22:1077-114.
23. Lin V. From public health research to health promotion policy: On the 10 major contradictions. *Social and Preventive Medicine* 2004;49:179-84.
24. Lavis JN. *Ideas, policy learning and policy change: The determinants-of-health synthesis in Canada and the United Kingdom*. Hamilton: McMaster University Centre for Health Economics and Policy Analysis, Working Paper No. 98-6; 1998.
25. Lavis JN, Robertson D, Woodside JM, McLeod CB, Abelson J, and the Knowledge Transfer Study Group. How can research organizations more effectively transfer research knowledge to decision makers? *The Milbank Quarterly* 2003;81:221-48.



# APPENDICES

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## APPENDIX A: A GUIDE TO THE SURVEY FIELDWORK INSTRUMENTS

**TABLE A.1:** OVERVIEW OF SURVEY FORMS

<i>Survey Form</i>	<i>Information about</i>	<i>Information provided by</i>	<i>Information recorded by</i>	<i>Number of forms required</i>
<p><b>1. HOUSEHOLD RECORD FORM (HRF)</b></p> <p>Names, sex, age, date of birth, relationship to carers, State/Territory of birth and self-reported Indigenous status of each person in the household.</p> <p>Primary and secondary carers of each child.</p> <p>Duration that each child has lived with primary carer.</p> <p>Relationships within the household.</p> <p>Any other children aged 0–17 years who usually live at this address but who are temporarily away.</p>	Number of people in the household and how they are related	Primary carer	Interviewer	One per family
<p><b>2a. CHILD HEALTH QUESTIONNAIRE (CHQLK)</b></p> <p>Collects information about children aged 0–3 years.</p>	Child health information about children aged 0–3 years	Primary or secondary carer	Interviewer	One for each child aged 0–3 years
<p><b>2b. CHILD HEALTH QUESTIONNAIRE (CHQBK)</b></p> <p>Collects information about children and young people aged 4–17 years.</p>	Child health information about children and young people aged 4–17 years	Primary or secondary carer	Interviewer	One for each child/young person aged 4–17 years
<p><b>3a. PRIMARY CARER'S QUESTIONNAIRE (CARER1)</b></p> <p>Collects information about the carer who is the main person looking after each child.</p>	<p>Family and community circumstances</p> <p>Family life and carer's health</p> <p>Carer's background and experiences</p>	Primary carer	Interviewer	One or more per family
<p><b>3b. SECONDARY CARER'S QUESTIONNAIRE (CARER2)</b></p> <p>Collects information about secondary carer(s) of each child.</p>	Carer's background and experiences	Secondary or primary carer	Interviewer	One or more per family
<p><b>4. YOUTH QUESTIONNAIRE (YSR-S/YSR-I)</b></p> <p>Collects information about young people aged 12–17 years.</p> <p>Two administration methods are available:</p> <p>YSR-S (self-administered)</p> <p>YSR-I (administered by interviewer)</p>	<p>Family and community circumstances</p> <p>Schooling</p> <p>Health risk factors</p>	Young people aged 12–17 years	Young person or interviewer	One for each young person aged 12–17 years
<p><b>5. SCHOOL &amp; TEACHER QUESTIONNAIRES</b></p>	Children and young people attending school	Teachers and school leadership team	Teachers and school leadership team	One for each child at school (consent required)



## CONTENT OF THE SURVEY INSTRUMENTS

1. Household Record Form (HRF)
  - List of people currently living in the household
  - List of children about whom information needs to be collected
  - Whether any other children are temporarily away
  
- 2a. Child Health Questionnaire 0–3 years (CHQLK)
  - Information on birth and natural mother
  - Feeding, sleeping and early development
  - Immunisation and health care
  - Common chronic illnesses
  - Dental health
  - Breathing and asthma
  - Separations from family, accidents and hospitalisations
  - Disability and functional impairments
  - Use of medical and other services
  - Use of day care
  - Parenting practices
  
- 2b. Child Health Questionnaire 4–17 years (CHQBK)
  - Information on birth and natural mother
  - Immunisation and health care
  - Common chronic illnesses
  - Dental health
  - Breathing and asthma
  - Separations from family, accidents and hospitalisations
  - Disability and functional impairments
  - Use of medical and other services
  - Use of day care, kindergarten and pre-school
  - School and educational progress
  - Emotions, problem behaviours and social development
  - Emotional or behavioural difficulties – Strengths and Difficulties Questionnaire
  - Parenting practices
  - Diet and nutrition



## 3. Carer's Questionnaire (CARER1 and CARER2)

Languages spoken at home  
 Participation and involvement in Aboriginal activities and culture  
 Education  
 Employment and training  
 Benefits, pensions and income support  
 Family financial strain, carer's income  
 Family stress from alcohol, gambling and violence  
 Experience of forced separation or relocation  
 Positive family interactions and family resilience\*  
 Family life stress events \*  
 Personal and social supports\*  
 Religious beliefs and practice of religion\*  
 Housing arrangements and housing standards\*  
 Perception of local community problems\*  
 Adequacy of, and access to, community amenities and services\*

\* asked of primary carer only

## 4. Youth Questionnaire (YSR-I and YSR-S)

Knowledge of Aboriginal language, culture and heritage  
 Health risk behaviour (smoking, sex, alcohol and drugs)  
 Diet and nutrition  
 Breathing and asthma  
 Emotions, problem behaviours and social development  
 Emotional or behavioural difficulties – Strengths and Difficulties Questionnaire  
 Depression and suicidal behaviour  
 Perceptions and experience of school  
 Experience of racism and bullying  
 Exposure to family violence, alcohol and gambling  
 Physical fitness and participation in sport  
 Religious beliefs and practice of religion  
 Friends and peer influence  
 Family support and encouragement



5a. Principal's Questionnaire — School Details

School contact information, school type and year range

Student enrolment (Aboriginal and non-Aboriginal students)

Number of teaching staff (Aboriginal and non-Aboriginal)

Number of non-teaching staff (Aboriginal and non-Aboriginal)

Number of support staff external to the school (Aboriginal and non-Aboriginal)

Proportion of new (inexperienced) teachers

Implementation of professional development and curriculum activities for Aboriginal education

Principal's ratings of:

- School, social and community problems affecting the overall school environment
- School morale and pastoral care arrangements
- School's resources for education of Aboriginal students

Whether school has access to an Aboriginal and Islander Education Officer (AIEO)

Whether school has an Aboriginal Student Support and Parent Awareness (ASSPA) Committee

5b. Principal's Questionnaire — Student Academic Details

Main language spoken – at home, in the playground, in the classroom

Rating of overall academic performance

Achievements in literacy and numeracy

Duration of current enrolment at current school

Attendance record this year

Whether boarding, hostel or day student

Whether removed from class for behaviour problems

Use and need of educational support services

5c. Teacher's Questionnaire — Student Behaviour

Emotional or behavioural difficulties – Strengths and Difficulties Questionnaire

Functional impairment (peer relations, classroom learning)

Burden and need for professional help

5d. Teacher's Questionnaire\* — Student Skills

Matrices – Non-verbal reasoning skills

Word Definitions – English language proficiency

*\* For high school students this section was administered by a school counsellor, form teacher, year head, or year coordinator*



## APPENDIX B: FURTHER VALIDATION OF TEACHER RATED ACADEMIC PERFORMANCE

Various aspects of the academic performance of Aboriginal students were examined in Chapter 5 – *Performance at school*. Three key measures of academic performance were collected in the survey. These measures are further described in Chapter 5 and included:

- ◆ teacher ratings of students relative to other students of the same age in numeracy, literacy and overall academic performance.
- ◆ students also completed two tests – a test of visuo-spatial reasoning where students were asked to complete a pattern or design ('Matrices' test) and a test of English word definitions ('Words Definitions' test).
- ◆ test scores from the Western Australian Numeracy and Literacy Assessment (WALNA) were obtained by linking survey respondents with data held by the Western Australian Department of Education and Training.

Analysis of teacher rated overall academic performance reported earlier in this volume shows a substantial proportion of Aboriginal students having low academic performance relative to non-Aboriginal students. These findings of low academic performance were consistent across all of the measures of academic performance available in the WAACHS.

In Chapter 5, unmoderated teacher ratings of overall academic performance were validated with reference to other independent measures of academic performance, including Matrices and Word Definitions test results and linked WALNA test scores. As reported in Chapter 5, strong associations between teacher rated overall academic performance and these independent measures of academic performance were found, strongly suggesting that teacher ratings are a reliable measure of academic performance.

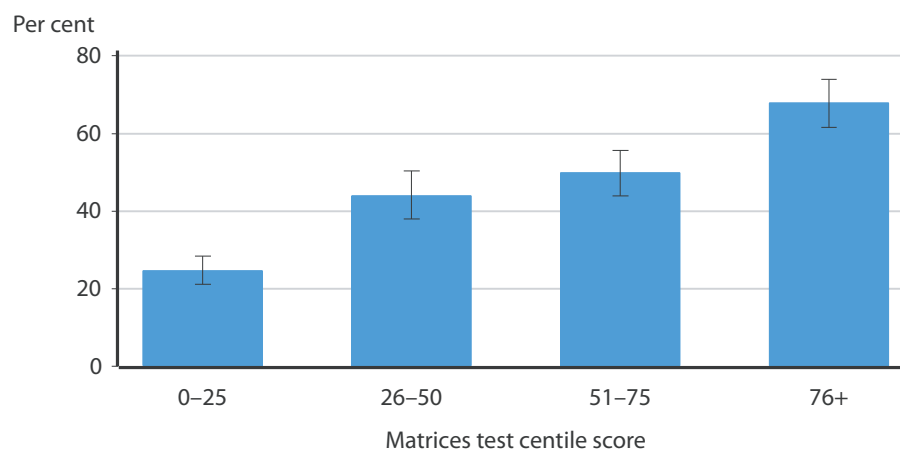
Further validation of teacher ratings of academic performance are provided here through the analysis of teacher ratings of numeracy and literacy with reference to the Matrices and Word Definitions test scores and WALNA benchmarks.

### TEACHER RATED NUMERACY AND MATRICES TEST SCORES

Of those Aboriginal students who completed a matrices test, 67.9 per cent (CI: 61.6%–73.9%) who scored in the 76th centile or above were also rated by their teachers as having average or above average numeracy performance. The corresponding proportion for those who scored in the 25th centile or below in the matrices test was a significantly lower 24.7 per cent (CI: 21.2%–28.4%) (Figure B.1).



**FIGURE B.1:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE PERFORMANCE IN NUMERACY ACHIEVEMENT, BY MATRICES TEST CENTILE SCORE



Source: Table B.1

**TABLE B.1:** ABORIGINAL STUDENTS AGED 4–17 YEARS — TEACHER RATED NUMERACY ACHIEVEMENT, BY MATRICES TEST CENTILE SCORE

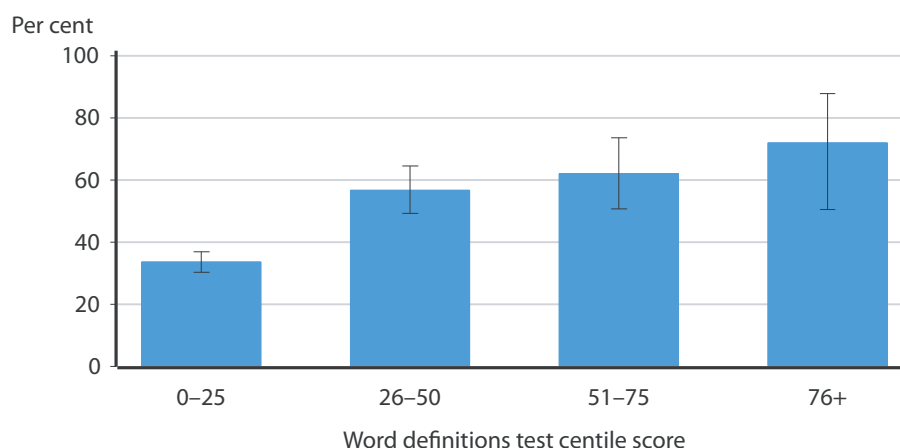
Matrix test centile score	Numeracy achievement	Number	95% CI	%	95% CI
0–25	Low	4 600	(4 150 - 5 080)	75.3	(71.6 - 78.8)
	Average or above average	1 510	(1 300 - 1 740)	24.7	(21.2 - 28.4)
	<b>Total</b>	<b>6 120</b>	<b>(5 660 - 6 590)</b>	<b>100.0</b>	
26–50	Low	2 030	(1 760 - 2 320)	56.0	(49.7 - 62.0)
	Average or above average	1 600	(1 310 - 1 920)	44.0	(38.0 - 50.3)
	<b>Total</b>	<b>3 620</b>	<b>(3 250 - 4 020)</b>	<b>100.0</b>	
51–75	Low	1 810	(1 560 - 2 090)	50.2	(44.3 - 56.0)
	Average or above average	1 790	(1 520 - 2 100)	49.8	(44.0 - 55.7)
	<b>Total</b>	<b>3 610</b>	<b>(3 250 - 3 970)</b>	<b>100.0</b>	
76–100	Low	870	(700 - 1 060)	32.1	(26.1 - 38.4)
	Average or above average	1 840	(1 540 - 2 190)	67.9	(61.6 - 73.9)
	<b>Total</b>	<b>2 720</b>	<b>(2 380 - 3 080)</b>	<b>100.0</b>	
<b>Total</b>	Low	9 310	(8 780 - 9 850)	58.0	(54.9 - 61.1)
	Average or above average	6 750	(6 210 - 7 290)	42.0	(38.9 - 45.1)
	<b>Total</b>	<b>16 100</b>	<b>(15 600 - 16 400)</b>	<b>100.0</b>	

### TEACHER RATED LITERACY AND WORD DEFINITIONS TEST SCORES

Broad agreement between teacher rated literacy performance and the word definitions test scores was also found. (Figure B.2). Almost three-quarters (72.0 per cent; CI: 50.6%–87.9%) of Aboriginal students who scored in the 76th centile or above in the words definitions test were also rated by their teacher as at average or above average literacy performance. This was significantly higher than the 33.6 per cent (CI: 30.4%–36.9%) rated at average or above average literacy performance who scored in the 25th centile or below in the word definitions test (Figure B.2).



**FIGURE B.2:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION AT AVERAGE OR ABOVE AVERAGE PERFORMANCE IN LITERACY ACHIEVEMENT, BY WORD DEFINITIONS TEST CENTILE SCORE



Source: Table B.2

**TABLE B.2:** ABORIGINAL STUDENTS AGED 4–17 YEARS — TEACHER RATED LITERACY ACHIEVEMENT, BY WORD DEFINITIONS CENTILE SCORE

Word definitions test centile score	Literacy achievement	Number	95% CI	%	95% CI
0–25	Low	7 600	(7 090 - 8 110)	66.4	(63.1 - 69.6)
	Average or above average	3 850	(3 440 - 4 270)	33.6	(30.4 - 36.9)
	<b>Total</b>	<b>11 400</b>	<b>(10 900 - 12 000)</b>	<b>100.0</b>	
26–50	Low	1 050	(850 - 1 280)	43.2	(35.4 - 50.7)
	Average or above average	1 380	(1 110 - 1 700)	56.8	(49.3 - 64.6)
	<b>Total</b>	<b>2 430</b>	<b>(2 090 - 2 790)</b>	<b>100.0</b>	
51–75	Low	380	(250 - 540)	37.8	(26.4 - 49.3)
	Average or above average	620	(460 - 820)	62.2	(50.7 - 73.6)
	<b>Total</b>	<b>1 000</b>	<b>(790 - 1 250)</b>	<b>100.0</b>	
76–100	Low	160	(70 - 350)	28.0	(12.1 - 49.4)
	Average or above average	420	(270 - 640)	72.0	(50.6 - 87.9)
	<b>Total</b>	<b>580</b>	<b>(390 - 830)</b>	<b>100.0</b>	
<b>Total</b>	Low	9 190	(8 670 - 9 720)	59.5	(56.3 - 62.5)
	Average or above average	6 270	(5 740 - 6 800)	40.5	(37.5 - 43.7)
	<b>Total</b>	<b>15 500</b>	<b>(15 000 - 15 900)</b>	<b>100.0</b>	

### TEACHER RATED NUMERACY AND WALNA NUMERACY BENCHMARKS

The WALNA data have also been analysed to assess how well test scores correlate with teacher rated performance in numeracy and literacy.

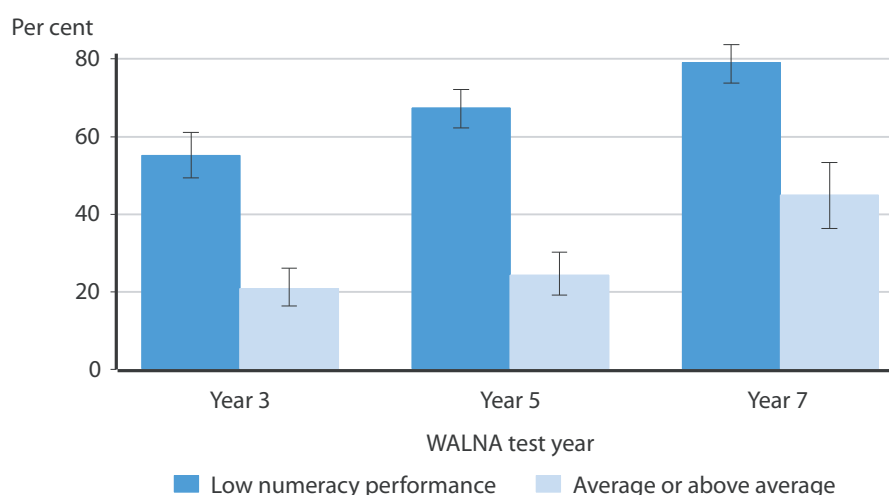
The proportion of students not achieving the WALNA numeracy benchmark have also been investigated with reference to teacher rated performance in numeracy. Figure B.3 presents the results of this analysis. Across all years of WALNA testing, a higher proportion of students who did not achieve the WALNA numeracy benchmark were rated by teachers at low numeracy performance relative to those rated at average or above average. Almost six in ten students (55.2 per cent; CI: 49.4%–61.1%) that did not achieve the Year 3 numeracy benchmark were also rated by their teacher at low numeracy performance. The corresponding proportion for students that had





average or above average numeracy performance was significantly lower at 20.8 per cent (CI: 16.3%–26.1%). This difference was even more marked for Year 5 results with 67.3 per cent (CI: 62.3%–72.1%) of students who did not achieve the numeracy benchmark rated at low numeracy performance. In comparison, a significantly lower 24.3 per cent (CI: 19.2%–30.2%) of students who did not achieve the benchmark were rated at average or above average numeracy performance (Figure B.3).

**FIGURE B.3:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION NOT ACHIEVING NATIONAL BENCHMARK IN NUMERACY, BY TEACHER RATED NUMERACY PERFORMANCE



Source: Table B.3

**TABLE B.3:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION NOT ACHIEVING WALNA NATIONAL BENCHMARK IN NUMERACY, BY TEACHER RATED NUMERACY PERFORMANCE

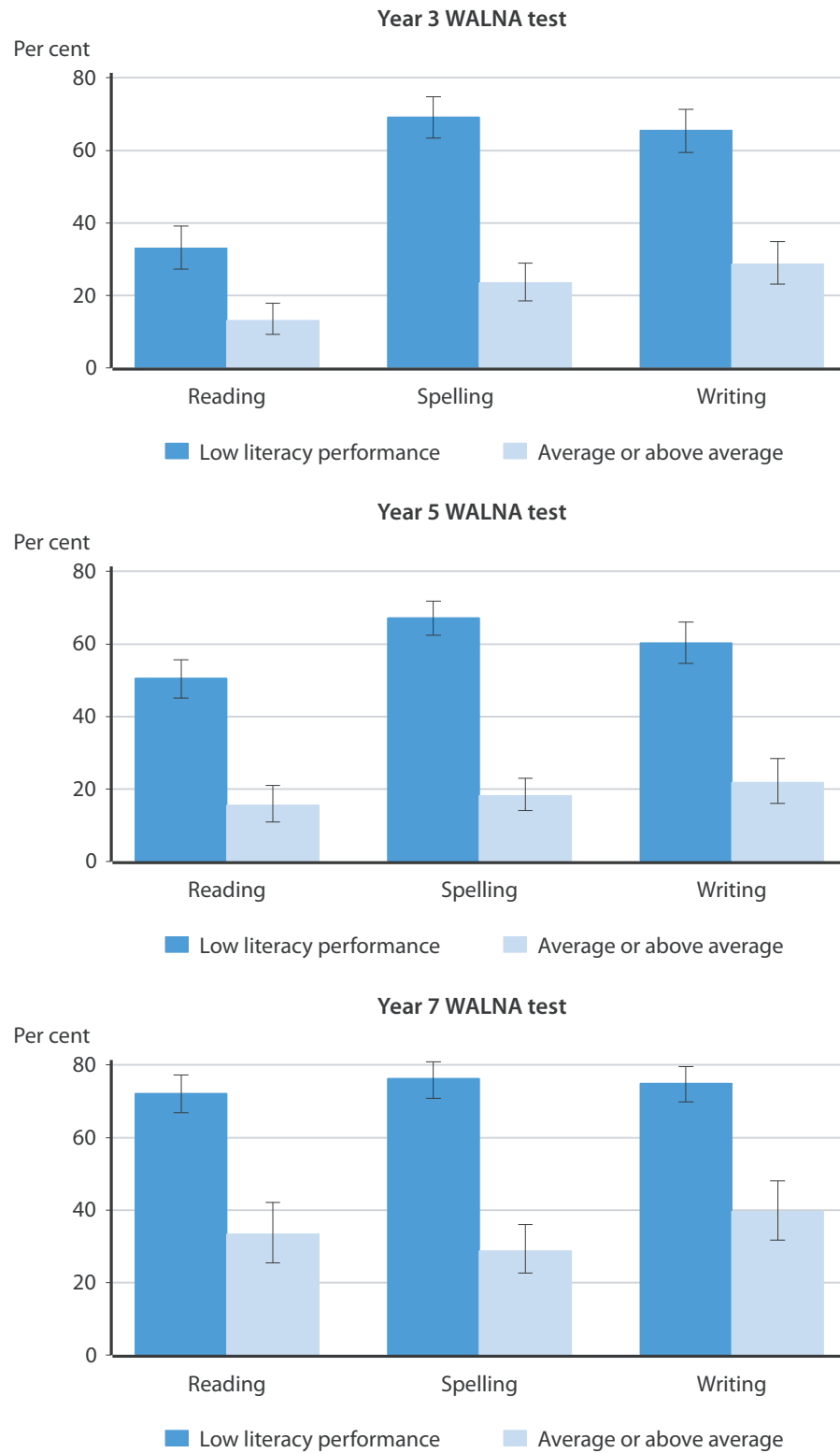
Numeracy performance	Number	95% CI	%	95% CI
Year 3 WALNA test				
Low	1 640	(1 390 - 1 910)	55.2	(49.4 - 61.1)
Average or above average	640	(500 - 810)	20.8	(16.3 - 26.1)
Year 5 WALNA test				
Low	2 330	(2 050 - 2 630)	67.3	(62.3 - 72.1)
Average or above average	700	(550 - 890)	24.3	(19.2 - 30.2)
Year 7 WALNA test				
Low	1 920	(1 690 - 2 180)	79.1	(73.8 - 83.6)
Average or above average	840	(660 - 1 050)	44.9	(36.3 - 53.3)

### TEACHER RATED LITERACY AND WALNA READING, SPELLING AND WRITING BENCHMARKS

Data pertaining to WALNA reading, spelling and writing benchmarks have also been analysed to explore how well these test results correlate with teacher rated literacy performance. Consistent with the earlier findings associated with teacher rated overall academic and numeracy performance, a higher proportion of students not achieving the reading, spelling and writing benchmarks were rated at low literacy performance than students that had average or above average literacy performance. This finding held across all three years of WALNA testing (Figure B.4).



**FIGURE B.4:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION NOT ACHIEVING WALNA NATIONAL BENCHMARK IN READING, SPELLING AND WRITING, BY TEACHER RATED LITERACY PERFORMANCE



Source: Table B.4



**TABLE B.4:** ABORIGINAL STUDENTS AGED 4–17 YEARS — PROPORTION NOT ACHIEVING WALNA NATIONAL BENCHMARK IN READING, SPELLING AND WRITING, BY TEACHER RATED LITERACY PERFORMANCE

<i>WALNA test</i>	<i>Literacy performance</i>	<i>Number</i>	<i>95% CI</i>	<i>%</i>	<i>95% CI</i>
<b>Year 3</b>					
Reading	Low	950	(770 - 1 170)	33.0	(27.2 - 39.1)
	Average or above average	350	(240 - 480)	13.0	(9.3 - 17.8)
Spelling	Low	2 320	(2 040 - 2 610)	69.2	(63.4 - 74.8)
	Average or above average	680	(530 - 850)	23.5	(18.3 - 29.0)
Writing	Low	1 950	(1 690 - 2 240)	65.5	(59.4 - 71.3)
	Average or above average	780	(630 - 960)	28.6	(23.1 - 34.9)
<b>Year 5</b>					
Reading	Low	1 860	(1 610 - 2 140)	50.5	(45.1 - 55.7)
	Average or above average	380	(270 - 530)	15.6	(11.0 - 21.0)
Spelling	Low	2 580	(2 280 - 2 890)	67.2	(62.4 - 71.9)
	Average or above average	470	(370 - 600)	18.2	(14.0 - 23.0)
Writing	Low	2 140	(1 870 - 2 440)	60.3	(54.6 - 66.0)
	Average or above average	540	(390 - 720)	21.9	(16.1 - 28.4)
<b>Year 7</b>					
Reading	Low	1 830	(1 580 - 2 100)	72.2	(66.9 - 77.2)
	Average or above average	570	(410 - 770)	33.4	(25.4 - 42.1)
Spelling	Low	2 030	(1 780 - 2 300)	76.3	(70.9 - 80.9)
	Average or above average	500	(400 - 630)	28.8	(22.7 - 36.0)
Writing	Low	1 800	(1 550 - 2 060)	74.9	(69.8 - 79.6)
	Average or above average	650	(520 - 800)	39.6	(31.7 - 48.1)



## APPENDIX C: MEASURES DERIVED FROM MULTIPLE RESPONSES AND SCALES

The WAACHS survey questionnaires included several sets of questions that were designed to be analysed by grouping them together to form summary measures. For instance, the Strengths and Difficulties Questionnaire (SDQ), which produced the main measure of risk of clinically significant emotional or behavioural difficulties (which was described in detail in Volume Two), produces a single measure of risk from a set of 25 questions.

Several other summary measures were described in Appendix C of Volume Two. These were:

- ◆ Number of life stress events
- ◆ Family functioning
- ◆ Youth self-esteem
- ◆ Youth derived parenting style
- ◆ Carer derived quality of parenting.

These variables have also been used in this volume. Additional summary measures were included on the schools questionnaires. Details of their derivation are included in this appendix. These are:

- ◆ Rating of specific school, social and community problems
- ◆ Rating of adequacy of learning, teaching and support programmes for all students
- ◆ Rating of adequacy of learning, teaching and support programmes for Aboriginal students.

### RATING OF SPECIFIC SCHOOL, SOCIAL AND COMMUNITY PROBLEMS

School principals were asked for their rating of specific school, social and community problems which may affect the school environment and ALL OF ITS STUDENTS'. Principals were asked to rate each of the following statements on a scale from 1 to 7 with 1 representing 'None' and 7 representing 'Extreme':

- ◆ 'Degree of absenteeism in school
- ◆ Degree of overall truancy
- ◆ Degree of overall school vandalism
- ◆ Degree of graffiti on school property
- ◆ Degree of physical violence occurring in the school
- ◆ Degree of racism at the school
- ◆ Degree that poverty affects children attending this school
- ◆ Degree of school drug and alcohol abuse
- ◆ Degree of physical violence occurring in the community.'

Table C.1 shows the distribution of principal ratings for each of these items. Most schools rated these items at the infrequent end of the scale.



**TABLE C.1: SCHOOLS — PRINCIPALS' RATINGS OF SPECIFIC SCHOOL, SOCIAL AND COMMUNITY PROBLEMS**

<i>Principal's rating of school</i>	<i>Number</i>	<i>95% CI</i>	<i>%</i>	<i>95% CI</i>
<b>Degree of absenteeism at the school</b>				
None	60	(30 - 90)	8.4	(4.7 - 12.1)
2	380	(330 - 430)	50.1	(45.3 - 54.8)
3	160	(140 - 190)	21.9	(18.6 - 25.1)
4	60	(50 - 70)	8.0	(6.1 - 9.8)
5	50	(40 - 60)	6.8	(5.1 - 8.5)
6	30	(20 - 30)	3.5	(2.5 - 4.5)
Extreme	10	(10 - 10)	1.3	(0.7 - 1.9)
<b>Degree of overall truancy</b>				
None	270	(220 - 320)	35.6	(30.5 - 40.8)
2	340	(300 - 370)	44.5	(39.9 - 49.1)
3	70	(60 - 80)	9.3	(7.5 - 11.2)
4	30	(30 - 40)	4.5	(3.3 - 5.8)
5	30	(20 - 30)	3.6	(2.6 - 4.7)
6	10	(10 - 20)	1.5	(0.9 - 2.1)
Extreme	10	(0 - 10)	0.9	(0.4 - 1.4)
<b>Degree of overall school vandalism</b>				
None	170	(130 - 210)	22.7	(18.1 - 27.3)
2	340	(300 - 380)	45.2	(40.5 - 49.9)
3	160	(120 - 190)	20.8	(16.7 - 25.0)
4	40	(30 - 50)	4.9	(3.6 - 6.3)
5	30	(20 - 40)	4.3	(2.9 - 5.8)
6	10	(10 - 20)	1.5	(0.8 - 2.2)
Extreme	0	(0 - 10)	0.5	(0.1 - 0.8)
<b>Degree of graffiti on school property</b>				
None	180	(140 - 210)	23.6	(19.1 - 28.0)
2	370	(330 - 410)	48.6	(43.9 - 53.4)
3	120	(100 - 150)	16.1	(12.8 - 19.5)
4	60	(30 - 90)	8.0	(4.6 - 11.3)
5	20	(20 - 30)	3.3	(2.1 - 4.4)
6	0	(0 - 10)	0.3	(0.0 - 0.6)
Extreme	0	(0 - 10)	0.2	(0.0 - 0.4)
<b>Degree of physical violence occurring in the school</b>				
None	190	(150 - 230)	25.3	(20.6 - 29.9)
2	390	(350 - 440)	52.3	(47.5 - 57.0)
3	100	(80 - 120)	13.2	(10.8 - 15.7)
4	40	(30 - 50)	5.9	(4.5 - 7.3)
5	20	(10 - 30)	2.6	(1.7 - 3.4)
6	0	(0 - 10)	0.6	(0.2 - 1.0)
Extreme	0	(0 - 10)	0.2	(0.0 - 0.3)
<b>Degree of racism at the school</b>				
None	180	(140 - 220)	24.1	(19.4 - 28.8)
2	380	(340 - 420)	50.5	(45.7 - 55.3)
3	140	(110 - 160)	18.1	(14.7 - 21.4)
4	30	(20 - 40)	4.2	(3.0 - 5.3)
5	20	(10 - 20)	2.3	(1.3 - 3.2)
6	0	(0 - 10)	0.6	(0.1 - 1.1)
Extreme	0	(0 - 10)	0.3	(0.0 - 0.6)

*Continued . . .*



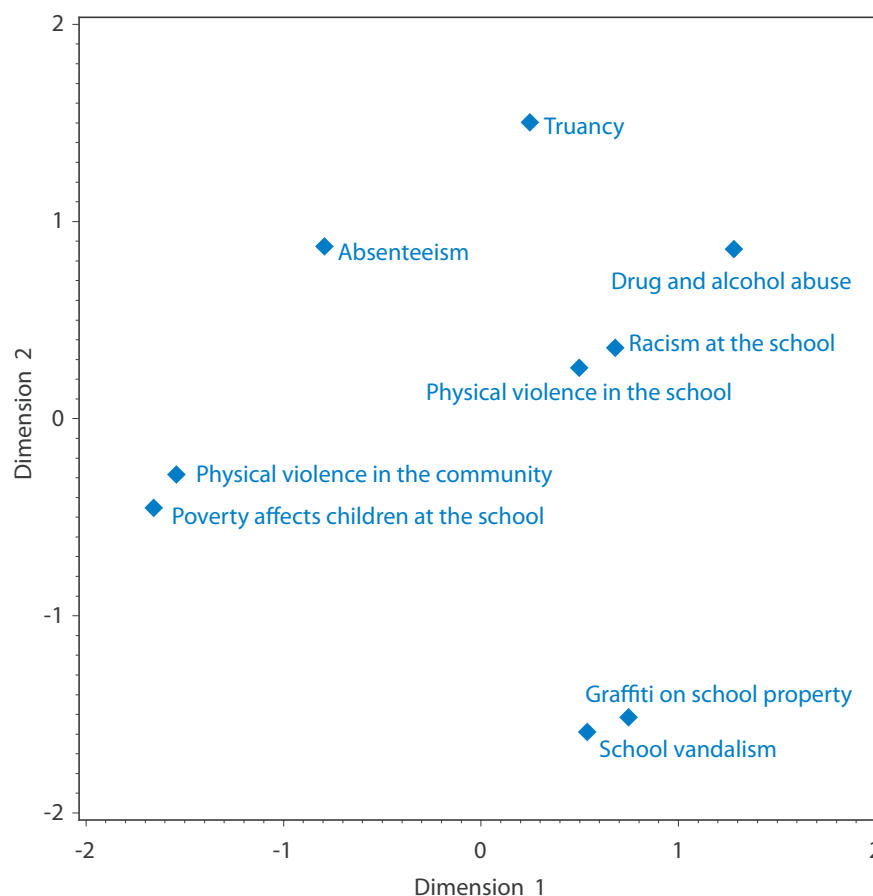
**TABLE C.1 (continued): SCHOOLS — PRINCIPALS' RATINGS OF SPECIFIC SCHOOL, SOCIAL AND COMMUNITY PROBLEMS**

<i>Principal's rating of school</i>	<i>Number</i>	<i>95% CI</i>	<i>%</i>	<i>95% CI</i>
<b>Degree that poverty affects children attending this school</b>				
None	90	(50 - 120)	11.3	(6.9 - 15.8)
2	270	(230 - 320)	36.3	(31.5 - 41.0)
3	140	(110 - 160)	18.0	(15.0 - 21.1)
4	110	(90 - 130)	14.6	(11.5 - 17.8)
5	90	(70 - 100)	11.7	(9.5 - 13.8)
6	40	(30 - 50)	5.4	(4.1 - 6.8)
Extreme	20	(10 - 30)	2.6	(1.7 - 3.5)
<b>Degree of school drug and alcohol abuse</b>				
None	330	(280 - 380)	43.8	(39.0 - 48.7)
2	290	(250 - 330)	38.9	(34.3 - 43.4)
3	70	(50 - 90)	9.4	(6.6 - 12.1)
4	30	(20 - 40)	4.3	(3.0 - 5.6)
5	20	(10 - 30)	2.7	(1.8 - 3.6)
6	10	(0 - 10)	0.8	(0.3 - 1.2)
Extreme	0	(0 - 10)	0.2	(0.0 - 0.3)
<b>Degree of physical violence occurring in the community</b>				
None	70	(40 - 100)	9.0	(5.3 - 12.7)
2	290	(250 - 340)	39.1	(34.2 - 44.0)
3	140	(120 - 170)	19.2	(15.8 - 22.7)
4	110	(90 - 130)	14.7	(11.9 - 17.5)
5	80	(60 - 90)	10.2	(8.3 - 12.0)
6	40	(30 - 50)	5.4	(4.0 - 6.8)
Extreme	20	(10 - 20)	2.4	(1.6 - 3.2)

The relationship between these items concerning school, social and community problems affecting the school environment was explored by fitting a Euclidean distance model, which is shown in Figure C.1. The purpose of this type of analysis is to graphically depict the correlation between various items. Rather than looking at the correlation between all possible pairs of events, the items are placed into a two-dimensional space, using a dimension reduction algorithm that represents the best placement of the events within two dimensions. The dimensions are arbitrary and do not necessarily have any specific meaning. However, the location of two items close together on the graph shows that principals who rated one item highly were likely to rate the other item similarly. The closeness of the items is a representation of the degree of correlation between them. For instance, there is a strong correlation between graffiti and school vandalism, a strong correlation between physical violence in the community and poverty affecting children at the school and a strong correlation between racism and physical violence in the school. However, it is difficult to interpret either of the dimensions as potential factors. A factor analysis was undertaken on these items in an attempt to identify the underlying factor structure. This analysis failed to identify groups of items that could be combined to represent factors. On the basis of this, and a further three-dimensional Euclidean distance model that also failed to identify an underlying factor structure, it was decided that items within this group would not be combined to develop an overall index of school, social and community problems and that individual items would be used in analyses as appropriate.



**FIGURE C.1:** RELATIONSHIP BETWEEN SPECIFIC SCHOOL, SOCIAL AND COMMUNITY PROBLEMS WHICH MAY AFFECT THE SCHOOL ENVIRONMENT



### ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ALL STUDENTS

School principals were asked for their rating of a number of questions concerning the schools' learning, teaching and support programmes as well as school morale and pastoral care arrangements as they apply to all students. Principals were asked to rate each of the following statements on a scale from 1 to 7 with 1 representing 'Inadequate' and 7 representing 'Fully adequate':

- ◆ 'Adequacy of the school's learning and teaching programmes for all students
- ◆ Adequacy of school's behaviour management programme
- ◆ Adequacy of school's arrangements for students at educational risk
- ◆ Adequacy of parents involvement in school activities and their children's learning
- ◆ Adequacy of school's pastoral care for students
- ◆ Adequacy of school's support to parents
- ◆ Adequacy of teacher support arrangements for teaching all students
- ◆ Adequacy of staff morale.'

Table C.2 shows the distribution of principal ratings for each of these items. Most schools were rated close to the fully adequate end of the scale for each item.



**TABLE C.2:** SCHOOLS — ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ALL STUDENTS

<i>Principal's rating of school</i>	<i>Number</i>	<i>95% CI</i>	<i>%</i>	<i>95% CI</i>
<b>Adequacy of the school's learning and teaching programmes for all students</b>				
Inadequate	0	(0 - 10)	0.1	(0.0 - 0.3)
2	0	(0 - 10)	0.4	(0.1 - 0.8)
3	10	(10 - 10)	1.4	(0.8 - 2.0)
4	30	(20 - 40)	4.4	(3.2 - 5.6)
5	240	(200 - 280)	32.1	(27.7 - 36.5)
6	370	(320 - 410)	48.7	(43.9 - 53.4)
Fully adequate	100	(70 - 120)	12.9	(9.6 - 16.1)
<b>Adequacy of school's behaviour management programme</b>				
Inadequate	0	(0 - 10)	0.3	(0.0 - 0.6)
2	0	(0 - 10)	0.4	(0.1 - 0.8)
3	10	(0 - 10)	0.8	(0.3 - 1.2)
4	30	(20 - 40)	4.4	(3.0 - 5.9)
5	170	(150 - 190)	22.7	(19.5 - 25.9)
6	390	(330 - 440)	51.3	(46.5 - 56.0)
Fully adequate	150	(120 - 180)	20.1	(16.3 - 23.8)
<b>Adequacy of school's arrangements for students at educational risk</b>				
Inadequate	0	(0 - 20)	0.0	(0.0 - 2.2)
2	10	(10 - 20)	1.4	(0.7 - 2.1)
3	10	(10 - 20)	1.5	(0.9 - 2.2)
4	50	(40 - 70)	7.1	(5.2 - 9.0)
5	270	(230 - 320)	36.3	(31.5 - 41.1)
6	300	(260 - 330)	39.2	(34.7 - 43.8)
Fully adequate	110	(80 - 140)	14.4	(10.9 - 17.9)
<b>Adequacy of parents involvement in school activities and their children's learning</b>				
Inadequate	20	(20 - 30)	3.0	(2.0 - 4.0)
2	70	(50 - 80)	9.2	(7.2 - 11.2)
3	80	(60 - 90)	10.4	(8.4 - 12.4)
4	140	(110 - 160)	18.0	(14.6 - 21.3)
5	210	(180 - 250)	28.5	(24.1 - 33.0)
6	130	(100 - 160)	17.6	(13.9 - 21.2)
Fully adequate	100	(60 - 140)	13.3	(8.9 - 17.8)
<b>Adequacy of school's pastoral care for students</b>				
Inadequate	0	(0 - 10)	0.0	(0.0 - 1.4)
2	10	(0 - 10)	0.9	(0.4 - 1.4)
3	10	(10 - 20)	1.9	(1.1 - 2.8)
4	40	(30 - 50)	5.2	(3.6 - 6.8)
5	190	(160 - 220)	25.2	(21.5 - 28.9)
6	370	(320 - 420)	49.5	(44.7 - 54.2)
Fully adequate	130	(100 - 160)	17.3	(13.5 - 21.1)
<b>Adequacy of school's support to parents</b>				
Inadequate	0	(0 - 10)	0.3	(0.0 - 0.6)
2	10	(0 - 10)	1.1	(0.6 - 1.7)
3	40	(20 - 60)	5.7	(3.1 - 8.4)
4	80	(60 - 100)	10.3	(7.9 - 12.7)
5	220	(190 - 250)	29.4	(25.5 - 33.4)
6	300	(250 - 340)	39.4	(34.6 - 44.3)
Fully adequate	100	(70 - 130)	13.7	(10.1 - 17.2)

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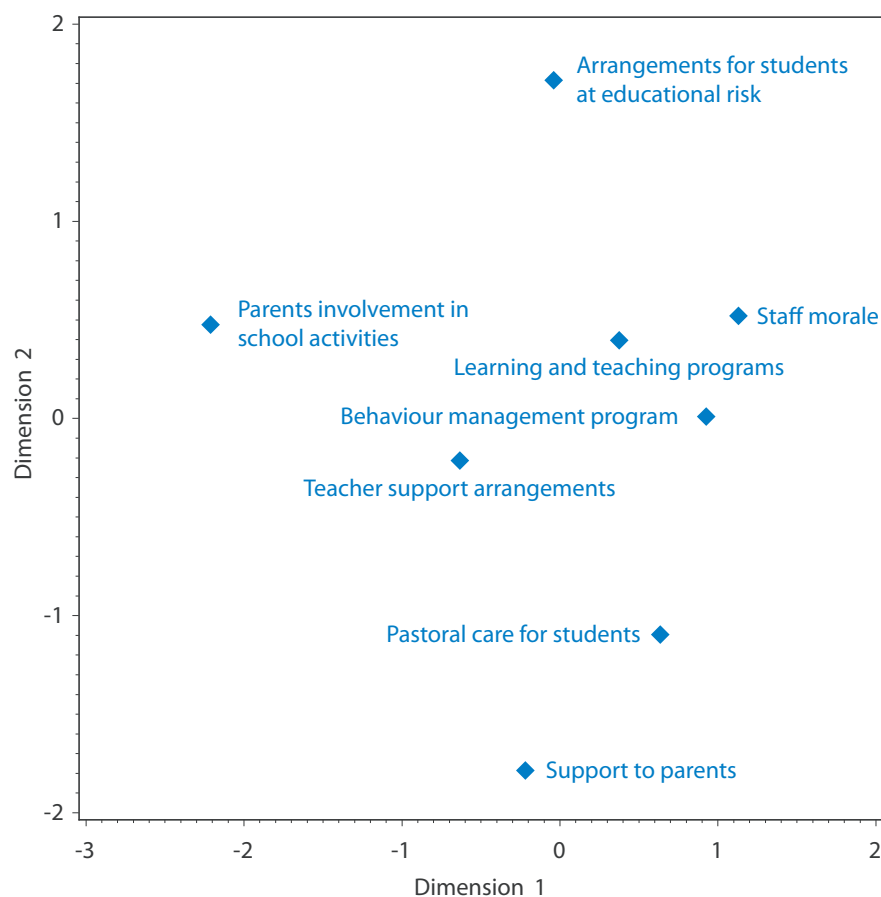




**TABLE C.2 (continued): SCHOOLS — ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ALL STUDENTS**

Principal's rating of school	Number	95% CI	%	95% CI
<b>Adequacy of teacher support arrangements for teaching all students</b>				
Inadequate	10	(0 - 10)	0.8	(0.3 - 1.2)
2	30	(10 - 50)	4.2	(1.7 - 6.7)
3	40	(20 - 60)	5.7	(3.3 - 8.1)
4	80	(70 - 100)	10.9	(8.7 - 13.2)
5	270	(220 - 310)	35.2	(30.4 - 40.0)
6	260	(230 - 300)	35.1	(30.6 - 39.5)
Fully adequate	60	(40 - 80)	8.1	(5.7 - 10.5)
<b>Adequacy of staff morale</b>				
Inadequate	0	(0 - 10)	0.3	(0.0 - 0.6)
2	10	(10 - 20)	1.7	(0.9 - 2.4)
3	30	(10 - 40)	3.5	(1.3 - 5.8)
4	50	(40 - 60)	6.7	(4.9 - 8.6)
5	210	(170 - 250)	28.3	(23.7 - 32.9)
6	340	(300 - 370)	44.6	(40.0 - 49.3)
Fully adequate	110	(80 - 140)	14.8	(11.1 - 18.5)

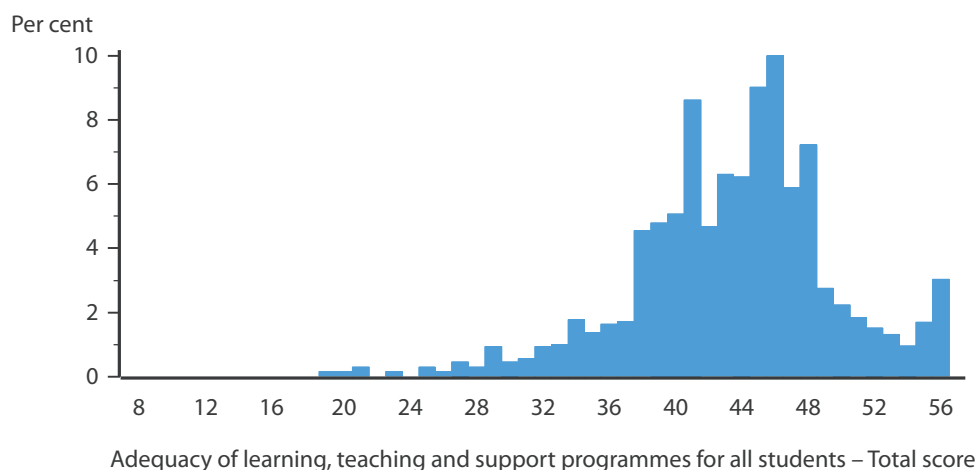
**FIGURE C.2: RELATIONSHIP BETWEEN ADEQUACY OF SCHOOL'S LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ALL STUDENTS ITEMS**



The relationships between these items were examined using two approaches — by fitting a Euclidean distance model, and factor analysis. Figure C.2 shows the results of the Euclidean distance model applying a multidimensional scaling algorithm to place the items on a two dimensional grid. The dimensions are arbitrary and do not have any specific meaning, but the closeness of items on the grid indicates the degree of commonality between them. The distribution of the items as seen in Figure C.2 shows no underlying multi-dimensional factor structure. Factor analysis of these items determined that these eight items could be adequately summarised using a single factor.

Based on the factor analysis results, a single composite measure of adequacy of each school's learning, teaching and support programmes as they apply to all students in the school was produced by summing the ratings for each of the eight items. This method produced possible scores on a scale of 8 to 56. The distribution of the total scores is shown in Figure C.3.

**FIGURE C.3:** SCHOOLS — ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ALL STUDENTS – TOTAL SCORE



With no independent information available to set cut-off points, quartiles were imposed on the distribution of total scores. The quartile ranges and the estimated number of schools in each range are shown in Table C.3. Because this is a discrete data item, it is not possible to get exactly 25 per cent of schools in each quartile range, but the deviations from this are small.

**TABLE C.3:** SCHOOLS, BY QUARTILES OF ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ALL STUDENTS TOTAL SCORE

<i>Quartiles of adequacy of learning, teaching and support programmes for all students</i>	<i>Number</i>	<i>95% CI</i>	<i>%</i>	<i>95% CI</i>
Lowest quartile (8–39)	160	(140 - 190)	21.7	(18.1 - 25.2)
Second (40–43)	190	(160 - 210)	24.6	(21.0 - 28.3)
Third (44–46)	190	(150 - 230)	25.3	(20.8 - 29.7)
Highest quartile (47–56)	210	(170 - 250)	28.4	(23.8 - 33.1)
<b>Total</b>	<b>750</b>	<b>(750 - 750)</b>	<b>100.0</b>	



## ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ABORIGINAL STUDENTS

In addition to their ratings in respect of all students at the school, principals were asked for their rating of a number of questions concerning the adequacy of learning, teaching and support programmes specifically as they apply to Aboriginal students. Principals were asked to rate each of the following six statements on a scale from 1 to 7 with 1 representing 'Inadequate' and 7 representing 'Fully adequate':

- ◆ 'Adequacy of the school's learning and teaching programmes for Indigenous students
- ◆ Adequacy of teacher support arrangements for teaching Indigenous students
- ◆ Adequacy of school's behaviour management programme for Indigenous students
- ◆ Adequacy of Indigenous parents involvement in school activities and their children's learning
- ◆ Adequacy of school's support to Indigenous parents
- ◆ Adequacy of your school planning in making provision for Aboriginal education."

Table C.4 shows the distribution of principal ratings for each of these items. Most schools were rated close to the fully adequate end of the scale for each item.

**TABLE C.4:** SCHOOLS — ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ABORIGINAL STUDENTS

<i>Principal's rating of school</i>	<i>Number</i>	<i>95% CI</i>	<i>%</i>	<i>95% CI</i>
<b>Adequacy of the school's learning and teaching programmes for Aboriginal students</b>				
Inadequate	10	(0 - 10)	0.8	(0.0 - 1.6)
2	50	(20 - 70)	6.4	(3.0 - 9.7)
3	50	(40 - 70)	7.2	(5.0 - 9.3)
4	120	(100 - 150)	16.5	(13.5 - 19.6)
5	240	(210 - 270)	32.1	(28.1 - 36.1)
6	230	(180 - 270)	30.1	(25.3 - 34.8)
Fully adequate	50	(30 - 70)	7.0	(4.2 - 9.8)
<b>Adequacy of teacher support arrangements for teaching Aboriginal students</b>				
Inadequate	20	(10 - 20)	2.1	(1.1 - 3.2)
2	60	(40 - 90)	8.4	(5.2 - 11.6)
3	50	(40 - 60)	7.1	(5.4 - 8.7)
4	110	(90 - 130)	14.6	(11.5 - 17.8)
5	210	(180 - 230)	27.6	(24.0 - 31.1)
6	240	(200 - 290)	32.3	(27.4 - 37.3)
Fully adequate	60	(40 - 80)	7.9	(5.0 - 10.7)
<b>Adequacy of school's behaviour management programme for Aboriginal students</b>				
Inadequate	10	(0 - 10)	0.8	(0.0 - 1.6)
2	20	(10 - 30)	3.0	(1.3 - 4.6)
3	40	(30 - 50)	5.0	(3.6 - 6.4)
4	60	(40 - 70)	7.6	(5.4 - 9.7)
5	160	(140 - 180)	21.5	(18.4 - 24.6)
6	350	(300 - 410)	47.0	(42.1 - 51.8)
Fully adequate	120	(90 - 140)	15.3	(12.0 - 18.6)

*Continued . . .*



**TABLE C.4 (continued): SCHOOLS — ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ABORIGINAL STUDENTS**

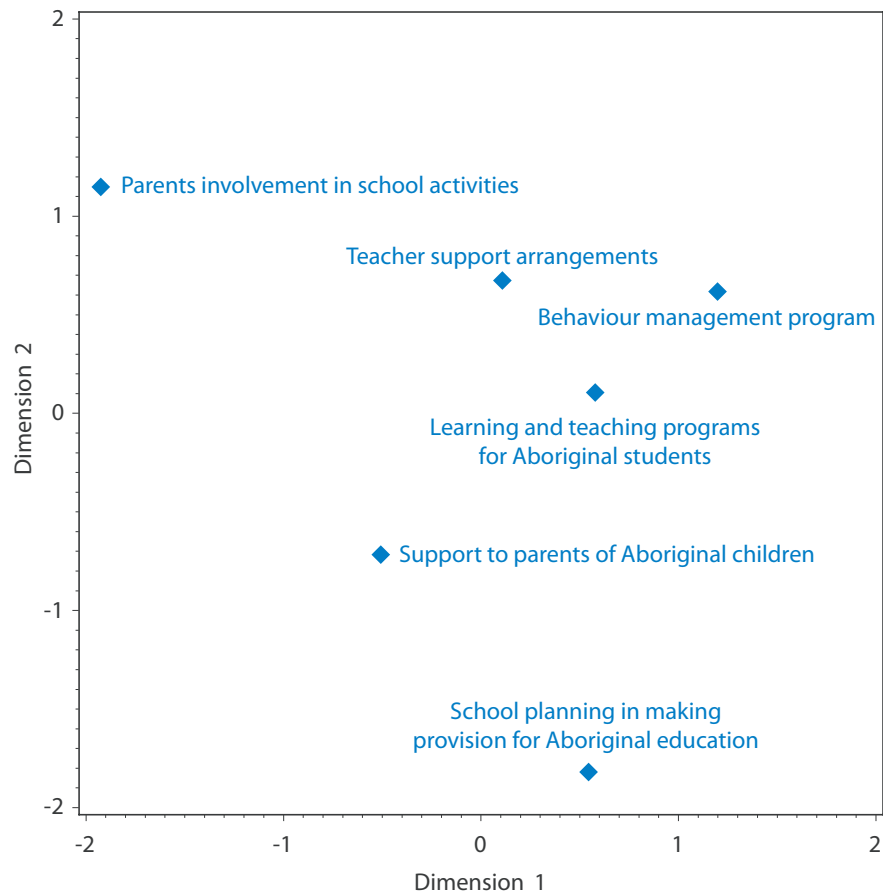
<i>Principal's rating of school</i>	<i>Number</i>	<i>95% CI</i>	<i>%</i>	<i>95% CI</i>
<b>Adequacy of Aboriginal parents involvement in school activities and their children's learning</b>				
Inadequate	70	(50 - 80)	9.0	(7.1 - 11.0)
2	140	(120 - 160)	18.1	(15.2 - 21.0)
3	120	(100 - 140)	16.2	(13.2 - 19.1)
4	100	(80 - 120)	13.1	(10.4 - 15.9)
5	150	(120 - 190)	20.5	(16.2 - 24.8)
6	120	(80 - 160)	15.8	(11.5 - 20.2)
Fully adequate	50	(30 - 80)	7.2	(3.8 - 10.6)
<b>Adequacy of school's support to Aboriginal parents</b>				
Inadequate	10	(0 - 20)	1.2	(0.2 - 2.1)
2	40	(30 - 60)	5.4	(3.5 - 7.4)
3	90	(70 - 120)	12.2	(9.0 - 15.3)
4	130	(110 - 150)	17.1	(14.0 - 20.2)
5	210	(170 - 240)	27.3	(23.2 - 31.4)
6	190	(150 - 230)	25.4	(21.0 - 29.8)
Fully adequate	90	(60 - 120)	11.4	(7.8 - 15.1)
<b>Adequacy of your school planning in making provision for Aboriginal education</b>				
Inadequate	10	(0 - 20)	1.5	(0.5 - 2.4)
2	70	(40 - 100)	9.0	(4.9 - 13.1)
3	70	(50 - 90)	9.4	(6.9 - 11.8)
4	140	(110 - 160)	18.2	(14.9 - 21.4)
5	190	(160 - 220)	25.0	(21.0 - 29.0)
6	210	(180 - 250)	28.0	(23.7 - 32.2)
Fully adequate	70	(50 - 90)	9.0	(6.3 - 11.6)

The relationship between these items concerning adequacy of learning, teaching and support programmes for Aboriginal students was explored by fitting a Euclidean distance model, which is shown in Figure C.4. As was the case for the eight statements relating to all students in the school, no obvious multi-factor structure is in evidence for the six statements specifically relating to Aboriginal students in the school. Factor analysis again found that one factor adequately summarised these six statements.

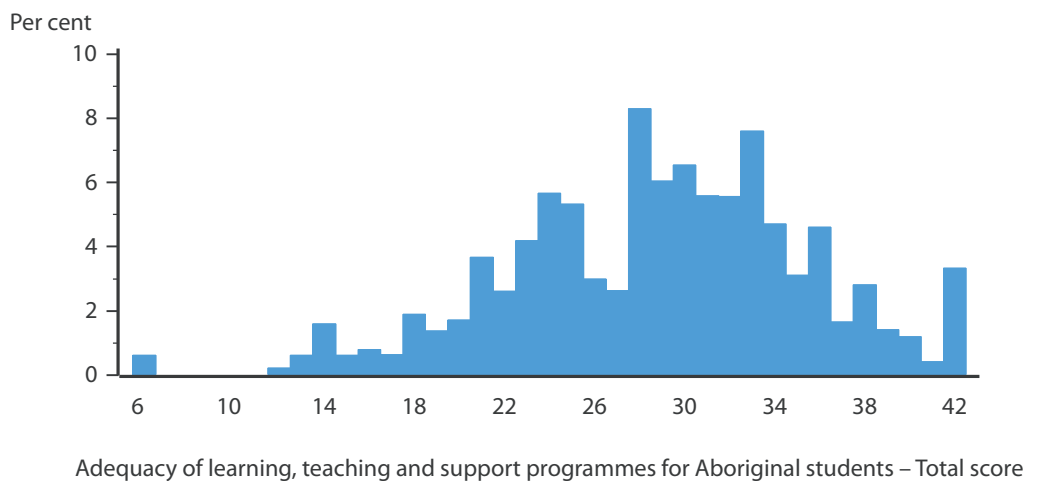
Based on these results a single composite measure of adequacy of each school's learning, teaching and support programmes as they apply to Aboriginal students in the school was produced by summing the ratings for each of the six items. This produced possible scores on a scale of 6 to 42. The distribution of the total scores is shown in Figure C.5.



**FIGURE C.4:** RELATIONSHIP BETWEEN ADEQUACY OF SCHOOL'S LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ABORIGINAL STUDENTS ITEMS



**FIGURE C.5:** SCHOOLS — ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ABORIGINAL STUDENTS – TOTAL SCORE



With no independent information available to set cut-off points, quartiles were imposed on the distribution of the total score. The quartile ranges and the number of schools in each range are shown in Table C.5. Because this is a discrete data item, it is not possible to get exactly 25 per cent of schools in each quartile range, but the deviations from this are small.

**TABLE C.5:** SCHOOLS, BY QUARTILES OF ADEQUACY OF LEARNING, TEACHING AND SUPPORT PROGRAMMES FOR ABORIGINAL STUDENTS TOTAL SCORE

<i>Quartiles of adequacy of learning, teaching and support programmes for Aboriginal students</i>	<i>Number</i>	<i>95% CI</i>	<i>%</i>	<i>95% CI</i>
Lowest quartile (6–24)	200	(160 - 230)	26.2	(22.1 - 30.2)
Second (25–29)	190	(160 - 220)	25.3	(21.4 - 29.2)
Third (30–32)	190	(160 - 230)	25.3	(21.1 - 29.5)
Highest quartile (33–42)	180	(140 - 210)	23.3	(18.9 - 27.6)
<b>Total</b>	<b>750</b>	<b>(750 - 750)</b>	<b>100.0</b>	



## APPENDIX D: LEVELS OF SCHOOL AND STUDENT PARTICIPATION

This appendix describes the characteristics of the students and schools selected in the WAACHS sample for whom it was not possible to collect information for the survey. Levels of family and youth participation in the survey were described in *Appendix D* of Volume Two — *Levels of family and youth participation*. Although the survey was voluntary, community acceptance of the survey was high, and the overall response rate was very good. However, as described in Chapter 1, responses from schools for the schools component of the survey were more difficult to obtain. The overall response rate from schools regarding students at school was considerably lower than was achieved in the 1993 *Western Australian Child Health Survey*. In that survey, school survey materials were returned for 87 per cent of the students in school, compared with only 67 per cent in the WAACHS.

Within the schools component of the survey, non-response could occur at three levels:

- ◆ at the school level, if a school refused to participate in the survey at all
- ◆ at the student level, if no information could be obtained from the school regarding a survey student
- ◆ at the item level, where some items may not have been able to be collected for students in the survey. This particularly related to the matrices and word definitions tests which were administered to survey students by teachers.

Non-response can have an impact on the validity of the survey results if the non-respondents are systematically different from the respondents in some way. As far as possible, characteristics of the non-respondents have been compared with respondents to test for possible biases. However, for schools that refused to participate in the survey at all, very limited information about these schools was available for testing for possible non-response bias.

### SCHOOL LEVEL PARTICIPATION

The survey sample was based on selecting families with one or more children under 18 years of age who were Aboriginal. Schools were selected in the sample if one or more children in the sample attended that school and the primary carer gave consent for the survey team to approach the school. At the time of the survey, 3,533 Aboriginal children aged 4–17 years in the WAACHS sample were attending school. Consent to approach the school was obtained in respect of 3,317 of these children (94 per cent).

These 3,317 students were attending 476 schools. Of these schools, 410 (86 per cent) provided at least some information for the survey. Unfortunately it was not possible to obtain very much information about the 66 schools that did not participate in the survey at all. However, analysis of household survey data for students attending these schools showed that they were more likely to have 3 or less students in the survey. It is likely that the survey results will slightly under-represent the proportion of schools with low numbers of Aboriginal students enrolled.

There were 260 survey students for whom the carers consented for the survey team to approach the school who were enrolled in the 66 schools that did not participate at all in the survey. This represents 8 per cent of the students for whom consent was obtained to approach the school. The majority of student level non-response occurred in schools for whom at least some survey information was obtained.



School survey information was collected in respect of 2,379 students. This is 67 per cent of the 3,533 survey students attending school, 72 per cent of the 3,317 students for whom the carers consented for the survey team to approach the school, and 78 per cent of the 3,057 students attending schools that participated in the survey.

## STUDENT LEVEL PARTICIPATION

To test for any evidence of bias in the student sample, it was possible to examine participation in the school survey sample by a range of characteristics collected in the household survey phase. This analysis examined the household survey responses for the 3,533 survey students attending school. Logistic regression modelling was undertaken to predict the likelihood of a student participating in the school sample. Possible explanatory variables included household, carer and student level demographic factors and physical health and social and emotional wellbeing of the survey student as reported by their carer. Results for the final model are shown in Table D.1.

**TABLE D.1:** CHILDREN AGED 4–17 YEARS — LIKELIHOOD OF SCHOOL SURVEY DATA BEING COLLECTED ASSOCIATED WITH DEMOGRAPHIC AND CARER REPORTED FACTORS

Participated in schools survey			
Parameter	Significance (p value)	Odds Ratio	95% CI
Sex			
Males		1.00	
Females	0.692	1.05	(0.82 - 1.35)
Age group			
4–7 years		1.00	
8–11 years	0.561	1.11	(0.79 - 1.56)
12–14 years	< 0.001	0.34	(0.23 - 0.50)
15–17 years	< 0.001	0.11	(0.07 - 0.19)
Level of Relative Isolation			
None		1.00	
Low	0.297	1.33	(0.78 - 2.29)
Moderate	0.293	1.41	(0.75 - 2.65)
High	0.559	0.70	(0.21 - 2.35)
Extreme	0.090	0.47	(0.19 - 1.12)
Primary carer is birth mother of the child?			
No		1.00	
Yes	0.056	1.67	(0.99 - 2.82)
Child has difficulty saying certain sounds?			
No		1.00	
Yes	0.055	1.84	(0.99 - 3.44)
Risk of clinically significant emotional or behavioural difficulties			
Low		1.00	
Moderate	0.258	0.76	(0.48 - 1.22)
High	0.001	0.57	(0.41 - 0.80)
Primary carer labour force status			
Unemployed		1.00	
Employed	0.034	1.93	(1.05 - 3.55)
Not in labour force	0.336	1.33	(0.75 - 2.35)
Not stated	0.012	0.22	(0.07 - 0.72)





The results of the logistic regression modelling showed that schools survey data was less likely to be received for older children. In part this was due to the delay between when the household survey data was collected, and when participation from the school was finally obtained. There were cases where students had left school during this period. While not quite statistically significant, children whose primary carer is also their birth mother and children who have difficulty saying certain sounds were more likely to have been included in returns from the schools survey. However, children whose carers reported they were at high risk of clinically significant emotional or behavioural difficulties were less likely to be included in the schools survey returns. Children whose primary carer was employed were almost twice as likely to be included in the schools survey.

No association was found between participation in the schools survey and physical health of the student or of the carer, family functioning, parenting style, life stress events, carer satisfaction with the school, carer report of whether the student is doing okay in school, carer or student substance use or other risk factors.

The schools survey data has been weighted to match the census distribution by age, year in school, Level of Relative Isolation and sex. However, it was not possible to take the other factors associated with participation in the schools survey (risk of clinically significant emotional or behavioural difficulties; carer employment) into account in this weighting process.

### Young people aged 12–17 years

Once a household had agreed to participate in the survey, data were collected from the carers in respect of each survey child, from young people themselves if aged 12–17 years, and from schools. Each of these three separate data sets have been independently weighted to the population level based on Estimated Resident Population counts provided by the Australian Bureau of Statistics. Each file can be used to produce an estimate of the number of young people aged 12–17 years still attending school. Based on the carer reported data, an estimated 6,870 young people aged 12–17 years were attending school (CI: 6,460–7,300). Based on data reported by young people themselves, an estimated 6,730 young people were attending school (CI: 6,450–6,990). Based on data collected from schools an estimated 6,820 young people were attending school (CI: 6,300–7,340). As this example shows, figures presented in this publication can differ slightly between tables if the source of data for the tables are different survey data sets.

In *Chapter 8 — School, health and young people*, analysis is undertaken of young people attending school using data from both the youth self-report (YSR) and the schools survey. Both of these survey forms were subject to non-response. Non-response to the YSR is discussed in detail in Appendix D of Volume Two. As a consequence of this non-response, there is incomplete overlap between these two data sources. Some young people attending school for whom data was provided by teachers did not fill in a YSR form. Similarly not all young people who reported they were still attending school on the YSR form were included in the school survey data set due to difficulties obtaining data from schools. No attempt has been made to separately weight the sub-sample of young people for whom both a YSR and school survey information was collected to the same population total. The school survey weight has been used for the analysis of this sub-sample, producing a weighted total of 5,220 young people at school who completed a YSR form. In figures and tables, this group of young people is identified as: Students aged 12–17 years who have completed a YSR form.



## ITEM LEVEL NON-RESPONSE

Almost all of the items collected in the schools survey had some level of item non-response. Very few survey questionnaires were complete for every item. Item level non-response often arose in cases where the respondent did not know the answer to a particular question, or did not have access to the appropriate records to obtain the information requested. While each survey form contained a large number of items, the majority of forms had missing or unknown responses for a handful of items only. In these cases it would be wasteful to exclude entire forms because of the lack of a small number of data items. For most of the data items in the schools survey there was only a small amount of item non-response.

Table D.2 presents a summary of the item level non-response for the forms in the schools component of the WAACHS. Most items had only small amounts of item non-response. However, the student skills questionnaire, which required administering two tests (of visuo-spatial reasoning and of word definitions) to the students, was not completed for a substantial number of students. The visuo-spatial reasoning test was not completed by 390 students (16 per cent) and the word definitions test was not completed by 470 students (20 per cent). No imputation was undertaken for these tests. 'Not stated' is included as a separate category in the analysis of variables for which imputation was not performed.

**TABLE D.2:** ITEM LEVEL NON-RESPONSE ON WAACHS SCHOOLS SURVEY FORMS

Form type	Number of items	Number of missing items		Number of items not imputed (a)	Most frequently missed items
		Range	Median		
School details	87	0–44	1	0	
Student academic details	34	0–26	1	5	Main language spoken at home Number of times and number of days suspended from school Use of speech therapy
Student behaviour	35	0–18	0	0	Kind to younger children Steals from home, school or elsewhere
Student skills	31	0–31	0	31	

- (a) Imputation for non-response was not performed if the number of records with missing values exceeded 10% of the number of respondents eligible to answer the question.

For variables with low levels of non-response, imputation was used as, in general, the low level of non-response has minimal substantive effect on the analysis, whereas the inclusion of a 'not stated' category in each table would complicate the presentation of results, particularly when calculating ratios and percentages.

Random hot-deck imputation was used for imputing non-response at the item level. Imputation classes were formed based on year in school, sex and remoteness. Within each imputation class, a donor was chosen at random for each non-respondent. The donor's response was then used to impute the value for the non-respondent.



This procedure does not add extra information about the non-respondents, but serves to fill out the data set to make analysis and interpretation of the results more straightforward. To prevent imputed values from affecting the analysis in any substantive way, a cut-off of 10 per cent of the applicable responses was set as a limit. If the level of non-response exceeded 10 per cent of the number of records for which an answer should have been provided, no imputation was performed. In this case, categories 'don't know' and 'not stated' were maintained and are presented in the published results.

In cases where two or more data sets are combined for an analysis, imputation was not carried out if there were mismatches between the files. For instance, when data from a student level questionnaire is combined with data from the primary carer's questionnaire, no attempt is made to impute data where a primary carer did not participate in the survey. In this case, 'not stated' is also used.



## APPENDIX E: RELIABILITY OF ESTIMATES

### MEASURING SAMPLING ERROR

Estimates from the WAACHS are based on information obtained from a sample of families, and are therefore subject to sampling variability. The figures from the sample may be different from the figures that would have been obtained had all families with Aboriginal children in Western Australia been included in the collection, just by virtue of random chance. This variability is known as sampling error. The size of the survey sample and the way the sample is designed are factors in determining the amount of sampling error.

Sampling errors can be estimated from the survey data. One measure of the sampling error is given by the 95% confidence interval. The confidence interval measures the degree to which an estimate may vary from the value that would have been obtained from a complete enumeration of the entire population. There are about nineteen chances in twenty (i.e. a 95% chance) that the population value will lie in the range indicated by the confidence interval.

For example, the proportion of Aboriginal students aged 4–17 years whose academic performance was assessed by their teachers as being average or above average was estimated to be 42.5 per cent with a 95% confidence interval (CI) of (39.7%–45.3%). This means that there is a 95% chance that if the entire population had been enumerated, and not just the sample, the population value would lie between 39.7 per cent and 45.3 per cent (a range of 5.6 percentage points).

The size of a confidence interval is a measure of the accuracy of an estimate. The smaller the confidence interval the more accurate the estimate is. As a general rule, the smaller the sample size used for calculating an estimate, the less accurate that estimate will be. For instance, the proportion of Aboriginal students aged 4–17 years living in the Perth metropolitan area whose academic performance was assessed by their teachers as being average or above average was estimated to be 48.6 per cent with a 95% confidence interval of (43.9%–53.4%), a range of 9.5 percentage points. As only approximately 30 per cent of survey children live in the Perth metropolitan area this estimate is based on a smaller sample size than the estimate for Western Australia overall. As shown above, the confidence interval for the Western Australia estimate has a range of 5.6 percentage points, whereas when restricted to the Perth metropolitan area only, the confidence interval has a range of 9.5 percentage points.

### ASSESSING STATISTICAL SIGNIFICANCE

Confidence intervals provide a simple means to assess the statistical significance of differences between figures. When comparing different estimates, it is possible that differences could arise by chance alone because the data is based on a random sample. Differences between figures are said to be statistically significant when it is very unlikely that the difference could be attributed to random chance. The confidence interval gives a ready means of identifying the statistical significance of differences between figures.

For example, the proportion of Aboriginal students aged 4–17 years whose academic performance was assessed by their teachers as being average or above average was estimated to be 48.6 per cent among students living in the Perth metropolitan area,



and 20.9 per cent among students living in areas of extreme relative isolation. The respective 95% confidence intervals are (43.9%–53.4%) and (5.7%–43.7%). If two confidence intervals overlap we conclude that there is a possibility the difference could be due to chance variation. When there is no overlap, as in this example, we conclude that the difference is statistically significant. That is, it is likely to represent a real difference in the proportion of students whose academic performance was assessed by their teachers as being average or above average between the two areas that cannot be explained by random chance alone. However, the proportion of Aboriginal students aged 4–17 years whose academic performance was assessed by their teachers as being average or above average was estimated to be 45.4 per cent among children living in areas of low relative isolation, with a 95% confidence interval of (40.4%–50.5%). As there is substantial overlap between this confidence interval and the confidence interval for the estimate from the Perth metropolitan area, it is possible that the difference in the estimates could be due to chance variation. The difference between the figures for the Perth metropolitan area and for areas of low relative isolation would be regarded as not statistically significant.

If a difference is not statistically significant, it does not necessarily mean that there is no real difference between the groups being compared. Where there is a true but small difference, it is possible that the difference is smaller than the accuracy of the estimates, as measured by the confidence interval. For instance, if there was a one per cent difference in the true population values of the proportion of students whose academic performance was average or above average between the Perth metropolitan area and areas of low relative isolation, the survey could not detect this, as the confidence intervals for the estimates are wider than one per cent. This is referred to as the power of the survey. Generally speaking, the survey does not have the power to detect differences in figures less than three to four per cent, and the power of the survey is reduced for small subsets of the survey population.

## NON-SAMPLING ERRORS

In addition to sampling error, survey estimates can be subject to other inaccuracies which are referred to collectively as non-sampling error. Non-sampling errors can occur because of form design limitations, errors in reporting by respondents due to difficulties recalling certain data or lack of appropriate records for certain data, errors made in collection such as in recording and coding data by the interviewers, and errors in the processing of the data. Non-sampling errors may occur in any enumeration, whether it is a full census or a sample.

Every effort is made to reduce non-sampling error to a minimum by careful design and testing of questionnaires, thorough training of interviewers, efficient operating procedures including quality control procedures, editing of survey returns and use of appropriate survey methodologies.



## GLOSSARY

### ABORIGINAL STATUS

To be included in the survey, carers had to identify one or more of their children in their household as being of Aboriginal or Torres Strait Islander origin. Only Aboriginal or Torres Strait Islander children (under the age of 18 years) were included in the survey, even in those cases where there were both Aboriginal and non-Aboriginal children living in the same household. Note that the carers did not have to be Aboriginal for the family to be included in the survey.

Carers were also asked whether they were of Aboriginal or Torres Strait Islander descent. Approximately 17 per cent of primary carers and 21 per cent of secondary carers of Aboriginal and Torres Strait Islander children and young people were not of Aboriginal or Torres Strait Islander descent.

### APPARENT RETENTION RATE

The apparent retention rate is defined as the percentage of full-time students of a given cohort group (i.e. all students who commence secondary school in the same year) who continue from the first year of secondary schooling to a specified year at school. The apparent retention rate can exceed 100 per cent, as it does not account for the transfer of students between jurisdictions, migration, or students repeating a year.

### CARER EDUCATION

The level of educational attainment achieved by carers was determined from two survey questions: 'What was the highest grade you finished at school?', and 'What qualifications have you received since leaving school?'. Qualifications were classified as:

- ◆ Trade/apprenticeship
- ◆ Certificate from college
- ◆ Diploma (beyond Year 12)
- ◆ Bachelor degree
- ◆ Post-graduate diploma/higher degree
- ◆ Other.

Carers who had completed a diploma, bachelor degree, post-graduate diploma or higher degree were classified as having 13 or more years of education. Otherwise educational attainment was classified by highest grade finished at school. The following categories have been used in this publication:

- ◆ Did not attend school
- ◆ 1–9 years education
- ◆ 10 years education
- ◆ 11–12 years education
- ◆ 13 or more years education.

Note that educational attainment refers to highest level achieved, not the number of years taken to achieve the qualification.



## DWELLINGS

In household surveys a distinction is often made between dwellings, households and families as per the *Census of Population and Housing*, with allowance made for the possibility of more than one household living in a single dwelling, and for a household to comprise more than one family. In the census, a dwelling is a habitable structure, a household is a group of related or unrelated people who make common provision for food, while a family is a group of people related by blood, marriage, adoption, step or fostering who usually reside within a single family. Note that in a block of flats, for example, each flat is considered to be a separate dwelling.<sup>1</sup>

In practice, the distinction between dwellings, households and families was found to have little importance in the WAACHS. Aboriginal families living together often contain extended family relationships. However, there were hardly any cases where two or more unrelated families were found to be living in the same household, and no cases were found where multiple households were residing in the same dwelling. In this volume, the terms household and family are used interchangeably, while the term dwelling is used to describe the physical structure in which a household or family is living.

## FAMILY FUNCTIONING

Family disharmony is known to be associated with poorer child development outcomes. The survey used a 9-item scale to measure the extent to which families have established a climate of trust and cooperation, emotional support and good communication. Primary carers were asked to rate each of nine statements on a scale of 1–5 as to how accurately each statement described their family circumstances. The nine statements included items about communications and decision making in the family, emotional support, time spent together, and family cooperation. These ratings were summed to produce an overall score. Families were then split into quartiles based on this score, with approximately 25 per cent of children in each category. These categories have been labelled poor, fair, good and very good family functioning in this publication. For details of the nine items and how they were combined to form the family functioning score, see *Appendix C* of Volume Two — *Measures derived from multiple responses and scales*.

## HOUSEHOLD OCCUPANCY LEVEL

A two-level index of household occupancy was created based on the number of bedrooms and the number of people usually sleeping in the home. A household was considered to have a high level of household occupancy if it had the following attributes in terms of the number of bedrooms and the number of people sleeping in the home.

<i>Number of bedrooms</i>	<i>Number of people sleeping there</i>
1	5 or more
2	6 or more
3	7 or more
4	8 or more
5 or more	9 or more



Note that the definition of household occupancy level published on page 129 of Volume Two was incorrect. The above definition has been used consistently throughout all analysis of the survey data.

### LEVEL OF RELATIVE ISOLATION (LORI)

A new classification of remoteness and isolation has been designed for this survey — the Level of Relative Isolation (LORI). The LORI is based on a product from the National Key Centre for Social Application of Geographic Information Systems at Adelaide University (GISCA) called ARIA++. The ARIA++ is an extension of ARIA (the Accessibility/Remoteness Index of Australia), which was first published in 1997 and has been widely adopted as the standard classification of remoteness in Australia. Because ARIA is based on describing the entire population of Australia, it has not been specifically designed to describe the circumstances of Aboriginal people living in remote areas. The ARIA++ gives much greater discrimination among more remote areas by including more service centres, of smaller sizes, in calculating its remoteness scores.

Based on the ARIA++ scores, five categories of isolation have been defined specifically for the survey that reflect differences in access to services for Aboriginal children. To avoid confusion with the original ARIA, the five categories are referred to as Levels of Relative Isolation (LORI) and range from None (the Perth metropolitan area) to Low (e.g. Albany), Moderate (e.g. Broome), High (e.g. Kalumburu) and Extreme (e.g. Yiyili).

See *Level of Relative Isolation* in Chapter 1, and *Appendix C — Determination of Levels of Relative Isolation from ARIA++* of Volume One<sup>2</sup> for more details.

### LOGISTIC REGRESSION

See **MULTIVARIATE LOGISTIC REGRESSION MODELLING**

### MAIN LANGUAGE SPOKEN

Teachers of surveyed school students were asked the main language spoken by the child in the classroom, playground and at home. Students' main language spoken was classified into five categories:

- ◆ English
- ◆ Aboriginal English
- ◆ Kriol/Creole
- ◆ Aboriginal language
- ◆ Other (specify).

Malcolm defines Aboriginal English as 'a range of varieties of English spoken by many Aboriginal and Torres Strait Islander people and some others in close contact with them which differ in systematic ways from Standard Australian English at all levels of linguistic structure and which are used for distinctive speech acts, speech events and genres.'<sup>3</sup>

In communities which brought together Aboriginal people from a number of mutually unintelligible languages, complex new languages known as creoles developed to allow children who grew up speaking pidgin as a first language to communicate. In northern areas of Australia, many Aboriginal people speak a creole language such as Kriol as well as other languages.<sup>3</sup>





## MULTIVARIATE LOGISTIC REGRESSION MODELLING

Logistic regression is a modelling technique that is used to investigate the relationship between the probability of a certain outcome (for example, a child having a particular health condition) and a set of explanatory variables. Logistic regression is discussed in several statistical publications — see, for example, Hosmer and Lemeshow (2000).<sup>4</sup> In this publication, logistic regression models have been fitted using a weighted version of multi-level modelling which allows for community level, family level and individual level factors to be included as explanatory variables in the models (see Pfeiffermann *et al*, 1998).<sup>5</sup> This technique takes into account the survey weights and the hierarchical structure of the data with selection of children within families and communities.

Logistic regression modelling has been used in situations where multiple factors may all have an impact on an outcome of interest. If the factors themselves are inter-related, bivariate tables may not tell the full story. For each variable included in a logistic regression model, the model determines its effect on the outcome independent of the effect of all other variables included in the model.

## ODDS RATIO

The odds of a given event is the ratio of the probability of its occurrence to the probability of its non-occurrence. For instance the odds of obtaining heads in a coin toss are one to one, the odds of any given face in the roll of a die are one to five. The odds ratios used in this publication are a measure of relative risk, derived from a formula which examines the association between, in most of the survey cases, a risk factor (exposure), and an adverse health outcome. In this publication, odds ratios have been estimated using logistic regression, which estimates the effect of each risk factor included in a model after adjusting for the independent effects of all other factors included in the model.

The statistical significance of an odds ratio can be judged by whether the confidence interval includes the reference value of one.

## PRIMARY CARER

For each child in the survey, the family was asked to identify the primary carer of that child. This was the person who was considered to spend the most time with the child or who had primary responsibility for the upbringing of the child. In many cases, the primary carer was the child's mother. The primary carer was then asked to provide information about each of the children in their care for the survey.

## QUALITY OF PARENTING

The nature of the relationship between a child and his or her primary carer, and the style and quality of the carer's parenting are important influences on the development and wellbeing of children. The survey asked a series of questions of carers about their relationship with each of their children. An index of quality of parenting has been derived from three of these items: how often carers praise their children, how often they hit or smack their children and how often they laugh together with their children. These three items, which measure the concepts of parenting warmth and harshness, were rated by carers on a five-point frequency scale from 'Never' through to 'Almost always'. An overall score was produced by summing these three items. Children were



then ranked by score, and split into quartiles based on this score, with approximately 25 per cent of children in each category. These categories have been labelled poor, fair, good and very good quality of parenting in this publication.

For further details on the quality of parenting items, and how they were combined to form the quality of parenting score, see *Appendix C* of Volume Two — *Measures derived from multiple responses and scales*.

## RECORD LINKAGE

Carers were asked for consent to access their hospital and medical records, as well as the birth, hospital and medical records of their children. Carers who consented were given the opportunity to opt out at any stage should they change their mind. The vast majority of carers consented to these records being accessed. Of primary carers, 96.7 per cent consented to allow access to their hospital records, while 92.8 per cent of secondary carers gave similar consent. Overall, 96.3 per cent of carers gave consent for their children's birth, hospital and medical records to be accessed.

The Western Australian Record Linkage System is unique in Australia, and one of only a handful of similar data collections in the world. It links together birth and death registrations with administrative hospital data from several sources to give a comprehensive record of health services contacts for the population of Western Australia. As there are no unique identifying numbers, probabilistic record linkage has been used to link the files together. This operates on matching names, dates of birth, hospital names and addresses. The procedure allows for possible changes in the matching fields by calculating the probabilities of records being correct matches. Records that are potential links are clerically reviewed, and the overall error rate has been estimated to be less than one per cent.

Key components of the record linkage system used in the survey are the birth records, the Hospital Morbidity Data System and the Mental Health Information System.

## SECONDARY CARER

Each family was asked to identify the primary and secondary carer of each surveyed child. The secondary carer was often the father of the child, but may also have been a grandparent or other relative of the child, or other person involved in the upbringing of the child.

## SOCIOECONOMIC INDEX FOR SCHOOLS

The Socioeconomic Index for schools (SEI) is an index of socioeconomic disadvantage which is constructed mainly from data collected by the ABS at the latest census. The SEI has five dimensions: Education, Occupation, Aboriginality, Single Parent Family, and Family Income, with the first three being double weighted, the last two single weighted. The Education, Occupation, and Single Parent Family dimensions are based on ABS Census data, the Aboriginality dimension is based on the proportion of Aboriginal students in the school, and the Family Income dimension is based on ABS Census data on the income of families with school-aged children adjusted according to the Regional Price Index. The effect of the Regional Price Index adjustment is to reduce the dimension values in districts where prices are higher, especially in the Kimberley and Pilbara.



The dimension scores are constructed for each census collection district (CD) first, by a series of principal component analyses of the CD level census data. These are then standardised with a mean of 100 and standard deviation of 10, and then school scores are constructed from them. The proportion of Aboriginal students in each school is converted into a similar form.

The addresses of students are collected from schools. These addresses are then mapped to the collection districts, and the proportion of students in each CD is calculated for each school. This enables the school SEI to be calculated from the standardised CD dimension scores, as follows:

- ◆ Education (x 2)
- ◆ Occupation, including unemployment (x 2)
- ◆ Aboriginality (x 2)
- ◆ Single Parent Family
- ◆ Family Income, adjusted by the Regional Price Index for the district

The SEI is a variation of the type of index developed by Kenneth Ross and Stephen Farish, and the analysis is still performed by Professor Stephen Farish who is now at the University of Melbourne.

## STRENGTHS AND DIFFICULTIES QUESTIONNAIRE

In this survey, the Strengths and Difficulties Questionnaire (SDQ) was used to measure emotional or behavioural difficulties in Aboriginal children. The SDQ comprises twenty-five questions looking into five areas of emotional and behavioural difficulties: emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour. The responses from the twenty questions related to the first four of these areas are combined to produce the Strengths and Difficulties Total Score. This score can range from zero to a maximum score of 40.

Information about the emotional and behavioural difficulties of Aboriginal children was collected from three sources: their primary carer, school teacher, and young people aged 12–17 years themselves. In this publication, most of the analysis of Aboriginal children's emotional and behavioural difficulties are based on teacher reported SDQ.

The Strengths and Difficulties Total Score can be grouped into three ranges — the *normal* range (0–11), *borderline* range (12–15) and *abnormal* range (16–40). These categories and their ranges are described by Goodman.<sup>6</sup>

Classification of the SDQ Total Score into normal, borderline and abnormal ranges is typically used within a clinical setting by mental health professionals to help identify and diagnose specific emotional or behavioural difficulties among children. In clinical settings, the SDQ may be used in conjunction with other techniques to assess an individual child in accordance with recognised diagnostic standards.



In household-based population surveys such as the WAACHS, where it is not possible to conduct comprehensive clinical assessments of individual children, the SDQ is more appropriately used to assess **risk status** for *clinically significant emotional or behavioural difficulties*. Thus, groups of children with SDQ scores in the range:

- ◆ 0–11 are identified as having *low* risk of clinically significant emotional or behavioural difficulties
- ◆ 12–15 are identified as having *moderate* risk
- ◆ 16–40 are identified as having *high* risk.

As described in Goodman,<sup>7</sup> the cut-offs used to assess risk of clinically significant emotional or behavioural difficulties are slightly different when carers of the child complete the SDQ. Volume Two of the WAACHS contains an extensive analysis of carer reported emotional and behavioural difficulties.

## ENDNOTES

1. Australian Bureau of Statistics. *2001 Census dictionary*. Canberra: Australian Bureau of Statistics (Catalogue 2901.0); 2001.
2. Zubrick SR, Lawrence DM, Silburn SR, Blair E, Milroy H, Wilkes E, Eades S, D'Antoine H, Read A, Ishiguchi P, Doyle S. *The Western Australian Aboriginal Child Health Survey: The health of Aboriginal children and young people*. Perth: Telethon Institute for Child Health Research; 2004.
3. Malcolm IG. *Language and communication enhancement for two-way education*. Perth: Edith Cowan University; 1995.
4. Hosmer D, Lemeshow S. *Applied logistic regression 2nd edition*. New York: Wiley; 2000.
5. Pfeiffermann D, Skinner CJ, Holmes DJ, Goldstein H, Rasbash J. Weighting for unequal selection probabilities in multi-level models. *Journal of the Royal Statistical Society, Series B* 1998;60:23–40.
6. Goodman R, Ford T, Simmons H, Gatward R, Meltzer H. Using the Strengths and Difficulties Questionnaire (SDQ) to screen for child psychiatric disorders in a community sample. *British Journal of Psychiatry* 2000;177:534–9
7. Goodman R. *SDQ: Scoring the SDQ*. [Online] [cited 2005 Oct 28]; Available from: URL: <http://www.sdqinfo.com/ba3.html>



