School of Science and Mathematics Education

The Rise and Fall of an Australian Technical College Program

Alan D Gent

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Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university. To the best of my knowledge and belief, this thesis contains no material previously published by any person except where due acknowledgement has been made.

Signature: …….

Date ……16 August 2019……..…

ABSTRACT

In 2005, the Australian Federal Government started to establish a network of 24 technical colleges which were a class of secondary school that could combine high school education with vocational skills training. The objective was to encourage students to stay in school to complete a certificate and at the same time help them to develop skills in locally needed trades through apprenticeships and placements. Established in February 2007, the Australian Technical College – Perth South was one of these colleges. Students could complete their Western Australian Certificate of Education (WACE) and trades subjects would be covered at the same time as WACE subjects. The Australian Technical College program ceased on 31 December 2009 when the Labor Government under Prime Minister Kevin Rudd withdrew funding. Most of the 24 ATCs were integrated into existing education and training systems (State/Territory government, Catholic and Anglican), with some continuing as stand-alone independent schools.

The purpose of the study is to investigate the reasons for the formation of the Technical College model from its earliest beginning in Australia, what prompted the Federal Government to form a new model in 2005, and why the model was discontinued after 2009. In answering these questions, focus is placed on the Australian Trades College, Perth South (formerly Australian Technical College, Perth South until August 2010), which was one of the last surviving colleges, finally closing in May 2013.

The research has two foci, the first of which is a document analysis which explores: the history of technical and trades colleges; the apprenticeship model; various government decisions concerning the establishment of colleges; government reports; technical college bills in Parliament and government funding for technical education since the beginning of European settlement in Australia. The second focus is a contemporary view of rise and fall of the Australian Technical College – Perth South based on a series of interviews with previous staff members and students of the College.

A historical method of research together with interviews conducted with former staff and students was involved in undertaking this case study. Qualitative variables, combined with an intrinsic case study methodology were used in the collection of the historical information. The historical research entailed the gathering of primary data, including first-hand accounts of information, eyewitness accounts of events, State and Federal Government Acts and Bills as well as examination of overseas governments' approaches to technical information. Secondary sources of information included accounts prepared by persons other than those who participated in, or observed the events described. These involved newspaper reports, journal articles, reviews and academic books. The secondary resources enabled this researcher to understand the subject, and they provided extensive bibliographic information for delving deeply into the research topic. The process involved a rigorous collection and organization of evidence, and the verification of the authenticity and veracity of information and its sources. Seven informants who had been employed or involved with the Australian Technical College, Perth South throughout the period under study were interviewed directly and also answered a number of survey questions. These interviewees were all knowledgeable about the period under scrutiny, having direct experience in the college at that time. The interview transcripts were scrutinized to assign codes to arrive at common themes and the historical data was similarly used to arrive at themes that would parallel contemporary data. Finally, the research methodology involved the drawing and recording of conclusions in a meaningful narrative.

An investigation of historical factors and analysis of the interview transcripts indicated that the main reason for the collapse of the college was the inability of the administration to manage alternative funding sources after the withdrawal of Federal Government funding. While an initially enthusiastic upper management of the College had many excellent ideas for alternative funding sources, later appointees were unable to sustain this enthusiasm due to their essential focus on maintaining economic sustainability.

The study forms a foundation for further research into the creation of a bipartisan technical college program which includes more generous time constraints in establishment of the program than those initially imposed by the Department of

Education Science and Training (DEST) and earlier consultation with political and industrial stakeholders to establish their support for the program, the lack of which was revealed in the research.

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In addition, I thank Terry, my spouse, friend and companion, for being so patient, forbearing, tolerant and supportive and for her extensive help as I agonised over elusive planning decisions while she had so many other activities she would like to pursue. Only a person who has been personally involved in such a long term project can appreciate the hours which must of necessity be denied to others, even to family members.

I would also like to thank my interviewees for their patience and forbearance, and for the honesty of their answers.

Alan Gent

ABBREVIATIONS AND GLOSSARY

List of Abbreviations

ASbA	Australian School based Apprenticeship
ATC	Australian Technical College
The Act	*Australian Technical Colleges (Flexibility in Achieving Australia's Skills Needs) Act 2005*
DEST	Department of Education, Science and Training
TAFE	Technical and Further Education (institution)
VET	Vocational Education and Training
WACE	Western Australian Certificate of Education

Glossary

Australian School-Based Apprenticeships	Students are able to commence a vocational and technical qualification while completing their school studies.
Certificate I	Focuses on basic employment related skills. For example, with a Certificate I qualification, employment can be as a dry-cleaner, factory hand, or florist.
Certificate II	Focuses on the ability to carry out a specific range of routine tasks with some complex or non-routine activities. For example, with a Certificate II qualification, employment may be gained as a bank officer, cleaner or farmer.

Certificate III	Focuses on relevant theoretical knowledge and the ability to perform a defined range of skills. With a Certificate III qualification, it is possible for employment as an electrician, motor mechanic, plumber, metal fabricator or commercial chef.
Certificate IV	Focuses on a broad knowledge base incorporating theoretical concepts and the skills needed for some technician–level and management occupations. With a Certificate IV qualification, it is possible for employment as an accounts clerk, an architectural drafter or a fitness instructor.
Curriculum	The specifications for a course or subject (module) which describe all the learning experiences a student undergoes, generally including objectives, content, intended learning outcomes, teaching methodology, and recommended or prescribed assessment tasks.
Registered Training Organisation (RTO)	An organisation registered by a State or Territory recognition authority to deliver training and/or conduct assessments and issue nationally recognised qualifications in accordance with the Australian Recognition Framework. Registered training organisations include TAFE colleges and institutes, adult and community education providers, private providers, community organisations, schools, higher education institutions, commercial and enterprise training providers, industry bodies and other organisations meeting the registration requirements.

Group Training Organisation (GTO)	A GTO employs an apprentice or trainee and places them with a host business in their chosen field. The GTO is the employer of the apprentice or trainee which means a GTO is responsible for organising wages, workers compensation, superannuation and other employee benefits. GTOs also manage all the training the apprentice receives, which may involve giving them the opportunity to work in a range of businesses.
Technical and Further Education (Institution) (TAFE)	A publicly funded post–secondary organisation which provides a range of technical and vocational education and training courses and other programs: for example, entry and bridging courses, language and literacy courses, adult basic education courses, Senior Secondary Certificate of Education courses, personal enrichment courses, and small business courses. Each State and Territory has its own TAFE system.
Vocational Education and Training (VET)	Post–compulsory education and training, excluding degree and higher level programmes offered by higher education institutions, which provide occupational or work–related knowledge and skills.

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Personal Narrative

In order to arrive at a starting point for the complex task of creating a thesis I realised that my personal background informed the research focus, and this background also formed an integral part of the way in which this thesis was planned.

My father's background

My parents came from a working class background to some extent – the line between 'working class and 'middle class' has been blurred over time. My father recognised the value of education at an early age. His father had been a clerk on the railways who rose to being a Station Master, but my father saw this 'progression' as something that he felt he could improve upon. As a radio technician in the Air Force during the Second World War, he realised that there could be far more of a career for him than working on the railways. After World War II there was a demand for teachers, and he was able to take advantage of the opportunity. His realisation that knowledge and education were so very important influenced our up-bringing. I was the middle son of three brothers and was expected to follow my older brother's path from school to Grammar school (in England) and to university eventually. It was this desire on my father's part that all his children should receive a solid education that drove him to help me over the first hurdle I encountered in this regard.

My father's influence and move to Australia

I was able to gain a place in a Grammar school after passing the 'Common Entrance' examination in England, thanks to my father's coaching. However, before I left primary school at a little village called Woodmansterne, we emigrated to Australia where I found myself with about 18 months more of primary school to cover, due to the different school system. Despite the alien nature of some of the subjects, I enjoyed the competitive nature of the work and was encouraged in this by the class teacher. Competition between students is frowned upon by the educationalists of today, since some students may feel disadvantaged if their marks are too low. The public primary school was attached to a migrant hostel near Lindfield in NSW, called Bradfield Park. I had my first experience of 'streaming' there, and was 'put up' to the

6th (top) class, being in the first 15, where we were given more advanced work. At the end of the following year I was lucky enough to be dux, as well as top in English and Mathematics. Because of this, I was able to gain a place at North Sydney Boys' High school.

I found the Australian education system much to be admired – there was no over-arching preoccupation with sport and academic achievement was regarded quite highly. Social class was never a barrier to academic success or how it was viewed. The classes were graded from A to E, and I started in 1E, being the assumed lowest standard. I was put up to 2B the following year. It was at the end of my second year there that my parents decided they wanted to return to England. I had been able to achieve top marks in French and was 5th in the class overall, so would probably have moved up to 3A the following year.

The move back to England and the British education system

In England, my academic achievements were stymied. I got my place in a Grammar school at Dorking, the town where I happened to have been born, struggled with the work and fell afoul of teachers who seemed to favour students that happened to be 'good at sport'. In hindsight, I realise a lot of this was due to the British Class system, still quite evident in the early 60's.

When I became a teacher later on, I was absolutely determined not to follow the lead of some of the teachers for whom academic prowess seemed to be in second place to success on the sports field. I did not do as well as I probably should have in the 'O' level (Ordinary level) General Certificate of Education (GCE) – perhaps it was the co-educational school, or perhaps simply teenage immaturity. It should be mentioned here that one's life and future can be made rougher or smoother by the actions, sometimes, of one person.

The trials and tribulations of Tertiary Education in England

I gained a place at Battersea College, which was one of the Colleges of Advanced Education. I was able to sit for a London University degree there, although it was not clear whether it would be regarded as highly as the same degree obtained from (say) Imperial College, London. It would probably suffer due to that British Class structure. A friend of mine also gained a place at the same college, but at the

interview, the head of the electrical engineering department told him that he would disregard the headmaster's report, as he had a son at the same grammar school, and knew the headmaster!

Released from the rigors of school study, I sailed into Part 1 of my degree in Electrical Engineering, under-estimated the amount of study necessary, and was not successful. At the time, Local Councils gave grants for tertiary education on a means-tested basis that covered most of the tuition fees, books and accommodation. The grant was for three years, (the duration of the degree) given on a yearly basis. After my inadequate academic performance, the grant for the remaining two years was withdrawn. I found employment and saved enough to attend full time college for the last term the following year, and passed Part 1. I applied again and received a grant for two years, but once again, I was not mature enough to realise the extent of studying required. I lost the grant the following year when my unfavourable results were published. I tried again, with the same poor result, so set my sights lower, to what was called an 'Ordinary National Certificate' (ONC). This was quite an easy set of subjects, and I had no trouble passing. I studied then for the next level – the 'Higher National Certificate (HNC) and would have passed except for a mix-up that saw me directed to sit the wrong exam! It was an exam to test the lower standard 'Ordinary National Certificate', which I'd already passed. Once again I easily passed the examination I, but was told I had to study for another two years before I could be granted a Higher National Certificate. I had my sights set on a Diploma, though, that would allow me to be what was called a 'Chartered Engineer'. I found that if I could simply pass two 'endorsement' subjects at 'National Certificate' level, I would achieve my goal.

At this time, I had been married for two years, and we decided to emigrate to Australia because of the difficult economic position in which we found ourselves. I was determined to make a permanent home there.

Continued education in Australia

After we had become settled in Australia I turned once again to qualifications, which I still felt were very important, following the advice and example of my father. I found I could sit the two necessary 'endorsement' subjects and become a Chartered

Engineer in Australia. I studied hard for two years. The first year, I passed one of the subjects, and the second year, the other! Unfortunately, I was only allowed two attempts, and they both had to be passed at the same time. It seemed the door had closed for me.

Not many years later, in 1974, Gough Whitlam abolished tertiary education fees, and I was once again handed a golden opportunity to study for a meaningful qualification. I enrolled at the NSW Institute of Technology in Broadway, and started a 6-year part-time Bachelor degree in Electronic Engineering. They were very accommodating, and gave me an exemption for the whole of the first year and several subjects in the second year, due to my previous work at Battersea College and other studies. This time I made no mistake, and had matured enough to study hard. I was able to receive an honours degree after quite a hard study road. I was amazed at the really high percentage of students that were unable to complete their degrees.

Employment in the Technical Education field

I was still keen to further my qualifications, and some years later I found myself in Western Australia applying for a full time position as an electronics lecturer at a TAFE college near Fremantle. I successfully completed a teacher-training course, (Graduate Diploma in Education – Technical and Further), and it may have stopped there, except that TAFE, who had accepted my tertiary qualifications initially, had changed their teaching requirements. During the five or more years I had been teaching at TAFE colleges they had developed a more 'trades-oriented' approach, and required teachers with actual experience as tradesmen. Certificate IV in Workplace Training and Assessment was also required.

Competency Based Education

During my time as a lecturer at TAFE, 'Competency-Based Training' was introduced, in which the word 'failure' was not to be applied to students. A number of tests were given to students in order for them to achieve a certain level of 'competence'. If students did not achieve that level initially, they were given another test covering the same curriculum subject. I was told that students should be allowed up to four tests, although it was not a hard and fast rule. There would be a total of

four tests for the different competence levels throughout the 12-week term. The tests were not national, but local to the college, created by individual lecturers! When I asked what would happen to a student who was able to pass all the tests very quickly, compared with students who were not as competent, I was told to give them 'enrichment work', but not to tell them that it would not count towards their assessment! Whatever we may think about teenage students, they are certainly not stupid, and suffice to say, we had a few problems. The other point about Competency-Based Training (CBT) was that (initially at least) percentage marks or even grades were not to be given. Later in the year we were told students were 'allowed' to know their grades but not their actual marks. Later still, marks were allowed, and not long after that, the 'testing' was not carried out until the end of each term, as before. We seemed to have completely reverted to the original system. CBT had failed overseas, but had to be tried in Australia, of course. It was simply not properly thought through, and probably should have had more input from persons with experience at the 'coal face' of teaching. My experiences were mirrored by Professor Wheelahan of Griffith University who found also that competency-based training was detrimental to working class students Wheelahan (2007).

School employment

My contingency plan was to become a secondary school mathematics teacher, and for that I had to complete and pass yet another teacher-training course, (Graduate Diploma in Education – Secondary) since that for TAFE was 'different'. Teaching at a secondary school at the age I was, 56 years, turned out to be one of the hardest academic tasks I had ever undertaken.

Over the intervening years since I had been at school, behaviour problems had escalated beyond all proportion due to there being very little a teacher could do to discipline a child. It was difficult to keep students after school for detention, and if lunch-time detention was required, it was 'obviously because the teacher had not the ability to control the class'. Teachers resorted to a number of 'tricks' to maintain discipline, but I found that behaviour problems of one sort or another account for about 50% of class time. A 'good' student could complete the work given in a lesson in roughly a quarter of the time taken. The 'multi-cultural society' also complicated the issue, with many parents refusing to allow homework, or not allowing their child

to be given ‘yard duty’ to pick up rubbish, even if they had dropped the rubbish themselves – it was regarded as ‘demeaning’. We heard about one teacher who had to apologise to a school at assembly for asking a student to pick up rubbish. Of course, manners and respect were commodities in very short supply. Parents expected the teaching of manners to be part of the school curriculum, shifting the responsibility to teachers for correction of rudeness by the students.

The Performance Appraisal process

At the time, beginning teachers were put on a ‘Performance Appraisal’ process for a minimum of two years, in which a beginning teacher was assigned a panel and a weekly meeting called to discuss progress. Panel members would be allowed into a classroom at any time, in addition to set appointments arranged with the teacher. It was probably a good system, depending upon the members of the panel. I found that I had to follow the pattern of teaching exactly set out by the Head of Department, even though the same strictures did not apply to other teachers. Each time there was a meeting to discuss progress, I was told that I was ‘not ready’ for permanency and that there were ‘some concerns’. One of these concerns was due to the variety of abilities within a classroom. I was supposed to assess these abilities and give some students lower standard work than others. The idea of ‘competition’ or ‘challenging work’ was long gone. During my struggle to come to terms with this requirement, I asked to sit in on a class by another mathematics teacher. I found that there was absolutely no ‘lower standard’ work given, and that the teacher seemed only to teach to one side of the class where the higher ability students were. Where I was sitting, the students were muttering that they ‘didn’t understand’ and so on, but said that it was ‘no good’ trying to ask a question. Essentially, they had given up, and the teacher had given up on them.

My experience with the Performance Appraisal process appears to be aligned with one of the conclusions by Elliott (2015), who stated that: “All too often initiatives are adopted in good faith but come across as misguided and demeaning, constrained by political agendas and extant discourse” (p. 111).

Relief Teaching

I decided I had had enough, and resigned from being a full time mathematics teacher. I became a relief teacher, and suddenly all the problems I'd had, evaporated! The Head of the Mathematics Department and his wife (who had been my nemesis on the performance appraisal panel) had left the school and the atmosphere was completely different. I was welcomed back to the same school with open arms and had very little behavioural problems with classes. I was able to teach the way I wanted to teach – working with the students to achieve an outcome rather than acting as an inflexible teacher, and I was able to use my sense of humour to create rapport.

A year or so later I moved back closer to Perth, and applied for a number of relief positions. At one school, they suggested I put in a 'Placement Request', since they had lost three mathematics teachers in quick succession and were desperately in need of another one.

The Gravity Discovery Centre

During this time as a relief teacher I was lucky enough to gain a position as Education Manager at the Gravity Discovery Centre in Gingin (GDC), and had a very good relationship with Emeritus Professor John deLaeter at Curtin University. I learned a lot about Einstein's Theories of Relativity and was amazed that they were not included in the Physics Syllabi. I put together various programs for visiting school children, conducted group tours, generally honed my skills at public speaking, and developed a very wide knowledge base. The GDC had been established by the singular efforts of Professor David Blair, who worked tirelessly to bring his dream to reality. He was and is a leading researcher into 'Gravity Waves', which were postulated by Einstein and were only conclusively proved to exist in 2016, after a 30-year search. (Svitil, 2016). The Australian International Gravitational Observatory (AIGO) was built in Gingin with the object of adding to the search for gravity waves with the use of a huge laser interferometer. There were a number of similar (and larger) observatories throughout the Northern hemisphere, and AIGO is very important because its results enable 'triangulation' of the search each time gravitational pulses are found. The reason for the establishment of the GDC close by was to bring schools closer to Einsteinian, rather than Newtonian physics. Funding at

the GDC was always a problem, and in the fullness of time, it was realised that they simply could not afford to pay me a full time wage.

Back to full-time teaching

I applied to the Education Department with my Placement Request and was successful. I was approved to teach Year 11 and 12 mathematics and avoid the subject of 'science' which I really disliked. Science in schools had become mostly 'kitchen chemistry' until Year 11, and physics could not be included with mathematics. My love was for physics, not chemistry. All would have been well, if it had not been for a new Principal who decided that I had to teach only middle school, including science and physical education. I put up with this for some time, and in an effort to remove myself from this school, I applied and was successful in gaining a Physics scholarship. Apparently, the Education Department was 'short of physics teachers'. I worked really hard on the Physics Certificate and achieved results I had never dreamed of in my previous examinations throughout school and university. I had hoped to be given an immediate posting at a school in Perth, but was told they couldn't find one! The school had been completely indifferent to my efforts, and I was not given any time off to study, not that I expected it. I had thought I would be able to teach upper school mathematics and physics after this, but found that in schools there was a mathematics department and a science department. A mathematics teacher would generally only teach middle school science if required, and physics was an upper school subject, and I was therefore unable to teach physics and upper school mathematics, despite my qualifications. I had become so disillusioned with the District High school at which I'd been teaching, with constant criticism of the way I was trying to conduct physical education lessons that I decided to resign once again.

The Australian Technical College, Perth South

I was successful in gaining a position at the Australian Technical College (re-named 'The Australian Trades College, Perth South" in August 2010) as a 'facilitator' in *(Name withheld)*, Western Australia, where I achieved 'permanency' after only three months.

The students at this college were mainly those for whom the school system had 'failed' and were supposed to be a 'challenge' to teach. However, education at the college was not free, and students could be expelled for gross misdemeanours, unlike secondary school. They were generally Year 11 and Year 12 students who were studying for an apprenticeship. I was employed to teach certain Western Australian Certificate of Education (WACE) subjects, and was given mathematics and business studies (with other minor subjects). I taught future auto-electricians and boilermakers at *(Name withheld)* and later electricians, cabinet makers and carpenters at *(Name withheld)* campus. Two years later, because of my physics qualification, I was able to teach physics in addition to mathematics. For the physics, it was necessary to write a course that was 'relevant' to the trade area, so for electricians for example, I would create many assignments that covered such things as domestic generator installation or house wiring estimation. The students divided their time in class and in the very well-equipped workshops in the same building, where they were tutored by skilled tradesmen.

There were a number of administrative problems associated with reporting and paperwork at the college, but in general, everybody on the staff worked hard and knew they had been given a great opportunity. For troublesome students, we were given a lot of support, but in general, behaviour problems were minimal. The program was different from that of TAFE and certainly different from that covered by in-school VET programs. (More will be said of this in Chapter 5, section 5.3).

In 2009, when funding was withdrawn by the Labor Government, many colleges immediately decided to close or to be amalgamated with other teaching facilities. The Perth South ATC was kept running by the determination of the administrative staff and a very astute CEO initially. It took until 2012 before it was finally realised that the college could not survive without an injection of funds. There had been a succession of CEOs, and the college finally closed, after inept upper management, in May 2013. The new CEO had not made any effort to secure on-going financing for the college and had progressively reduced staff to the detriment of the college program. Luckily I had resigned in January of the same year, when the future for the College looked very grim.

Effect on Qualitative Analysis Process

My experience as a long-time student in England and Australia in three levels of the school system, primary, secondary and tertiary, as well as my later experiences in front of a class as a teacher, lecturer and facilitator, have shaped my belief in the education system. These personal experiences have informed the direction taken for qualitative analysis research and allowed me to shed light on different aspects of the education system. Further, my background has given me insights to investigate the reasons for the demise of the Australian Technical College, Perth South where I spent my last few working years before retirement.

CHAPTER 1

Introduction

1.0 Chapter Overview

This chapter provides the background to the study (section 1.1) followed by a review of the concept of the Australian Technical College, Perth South (Section 1.2), purpose of the research (section 1.3), the research questions (section 1.4), an overview of the research methods (section 1.5), the significance of the research (section 1.6), the limitations (section 1.7) and a discussion of the ethical considerations that needed to be addressed (section 1.8). The chapter concludes with an overview of the chapters of the thesis (section 1.9).

1.1 Background of the Study

In 2005, the Federal Liberal Government under Prime Minister John Howard established 24 'Technical Colleges' throughout Australia, in every State (Australian Government, 2005). Seven colleges were established in New South Wales, these being in Hunter, Port Macquarie, Western Sydney, Central Western NSW, Central Coast, Illawarra and Queanbeyan. In Queensland they were four colleges at Gladstone, Gold Coast, North Brisbane and Townsville. The three colleges in South Australia were established at Northern Adelaide, Adelaide South and Port Augusta/Whyalla. In Tasmania there was one college only, established at Launceston. The six colleges sited in Victoria were at Bairnsdale/Sale, Geelong, Bendigo, Eastern Melbourne, Sunshine and Wannon. The two colleges established in Western Australia were at Perth South and the Pilbara (Australian National Audit Office, 2007). In 2009, the Federal Labor Government under Prime Minister Kevin Rudd withdrew funding for the Technical Colleges. This study examined one of these Colleges in South Perth as a focus for the reasons behind the establishment of Technical Colleges in Australia, and why funding was withdrawn, signalling their demise or absorption into the TAFE system and elsewhere. The program formulated by The Australian Technical College, Perth South had initiated a unique program for

its students, and was able to continue as the Australian Trades College after funding was withdrawn. As the college in South Perth was one of the few of the 24 colleges to successfully continue its activities into 2013, it was important to examine the program used in order to help to determine possible future directions of Technical Education for Trades persons. The program itself was sufficiently different from that of the well-established TAFE (Technical and Further Education) system to make it a popular choice for students.

Funding, government attitudes to Centralism and interpretation of the Australian Constitution were examined in this study, as well as the influence of Government personalities of the day, both State and Federal. Fenna (2018) posited that 'Centralism' in Australia has been growing since the early twentieth century. When the constitution was originally drafted, the United States was seen as a model, rather than that of Canada, which was more Centralist. (p. 33). Local Government decisions also played a part in the initial survival of the college. Waterhouse et al. (2006) concluded that Local Government could play a much larger role in supporting education, "particularly lifelong learning" (p. 5). Additionally, historical reasons were investigated, and the study delved back into pre-Federalism and the attitudes to First Fleet arrivals. An excellent account of this early history documented by Watkin-Tench (1793) has been drawn upon by the researcher for this study.

Funding available from the Federal Liberal Government in 2005 to set up the colleges was withdrawn in 2009 by the Federal Labor Government (House of Representatives Australia, 2009). Although the apparent reason the Australian Technical College, Perth South failed was simply a withdrawal of funding by the Federal government, the study included interviews of former administrative and teaching staff as well as students from which it was sufficient to conclude that lack of funding was only one of the issues. The study also examined the role of technical education in other countries to compare the attitudes of governments with that in Australia to technical education since there was a possibility that a poor attitude to technical colleges compared with other forms of tertiary and vocational education may have influenced the government decision to withdraw funding support. It has been suggested that assistance with technical education could be made available through public funds (Parliament of Australia, 2014) and this issue has direct

relevance to the situation that existed much later concerning the Australian Technical College, Perth South, in its two campuses. The 'Mining Boom' in Western Australia may have been the reason for the Liberal Government to set up the colleges to supply more apprentices to the various trades, but the same conditions were existent in 2009. The removal of the funding appears a little unusual, since Labor Governments have Centralism in their policy (Fenna, 2018, p. 30) and it would seem that funding State institutions such as Technical Colleges would be part of their remit. Gough Whitlam's Labor Government in 1974 abolished University fees ("States Grants (Advanced Education) Bill (No. 4),," 1973) and allowed many more individuals access to tertiary education. This policy remained in place for the whole 14 years of the Liberal government under Mr Malcolm Fraser. And it was not until the late 1980's when a new Labor government under Mr Bob Hawke realised that the number of students completing Year 12 at school was putting too heavy a burden on government expenditure to allow the policy to continue.

1.2 The Australian Technical College, Perth South

1.2.1 Original Concept

As part of a broader Australian Liberal Government strategy in response to the need for skilled trades persons in regional and metropolitan areas as a result of a skills shortage triggered by the 'mining boom' in Western Australia and Queensland, there was an election commitment to establish 24 Technical Colleges in 24 regions throughout Australia. The details of the programme were announced after the election in the following year, 2005 (Australian Government, 2005). It was expected that some of the colleges would accept students in 2006 and all colleges would commence operations by 2008. A further four colleges were to be established. One of these, in Adelaide, was announced in 2005, and three more after the budget in 2007-08. A college in North Perth was never established despite its being a chosen region initially.

The funding for the Australian Technical College (ATC) Perth South (re-named the Australian Trades College after withdrawal of funding) was allowed due to Section 96 of the constitution. This section

> ...allows the Commonwealth to make conditional grants of money to the States for any purpose. This power to impose conditions on how the money is spent by the States allows the Commonwealth to influence the way things are done in areas over which it has no direct power to pass laws. For example, the Commonwealth has exerted significant control over universities in this way even though it has no specific power in relation to education (Australian Government Solicitor, 2017, p. vii).

Although education is the responsibility of the State and Territory Governments, the Federal Government, through its external affairs power, can also make changes to education if it is deemed to affect an international agreement or has wider implications than the specific State. In addition, the Federal Government can allocate money to the States for any purpose, and may impose conditions on how the money is spent. Thus, in a similar Constitutional way to the one whereby Gough Whitlam's Labor government was able to abolish tertiary education fees under the States Grants (Universities) Act (No. 3) 1973, John Howard's Liberal Government was allowed to fund the establishment of Technical Colleges in 2005. The 24 colleges were termed 'Registered Training Organisations' (RTOs) formed throughout all States. The legal basis for financial assistance to the 24 colleges was provided after the government assented to the *Australian Technical Colleges (Flexibility in Achieving Australia's Skill Needs)* Act 2005 (The Act) 0n 19 October 2005 (Australian National Audit Office, 2007, p. 13).

After the Act was passed to allow establishment of the colleges, there was a mix of successful tenderers that included private schools, and proposed private schools. It is interesting to note that this was the first time that any government had founded a private school. According to the Portfolio Budget Statement 2006-7 of the Department of Education, Science and Training (DEST), the Australian Technical Colleges would accept students in Year 11 and Year 12 allowing them to continue with academic subjects leading to a Year 12 Certificate. The students would enter into a School-Based Apprenticeship in a trade at Certificate III level leading to a nationally recognised qualification in a number of areas of skill needs including metal and engineering, automotive, building and construction and electro-technology. In this way they would gain employability and business skills which

would enable them to become competitive in the business world (Attorney General Australia, 2006, p. 42).

To set up the colleges as required by DEST, a board of governors was selected from a number of individuals including participants from local industry and education to reflect the trade in which the college would train students. The college would follow compliance guidelines set by DEST. Industry groups, Trustees of the Roman Catholic Church and the State of Victoria, among others, entered into funding agreements with the Commonwealth to establish these not-for-profit colleges nationally, for a term of up to five years to 2009. Each college would receive grants from DEST based on the particular trade, and the grant would not be subject to student numbers. Although the colleges owned the assets of the college, if the agreement was terminated, the college was expected to repay to DEST the undepreciated value of any asset. This is an important point, since it was funding withdrawal that was a major reason for the demise of the Australian Trades College, Perth South, and all others of the 24 colleges.

The 24 colleges fell under the VET system, in which the Technical and Further Education (TAFE) college sector was the largest recipient of government funding. The total funding for the VET sector (including TAFE colleges) was expected to be $2.8 billion in 2007-8, for an estimated 1.7 million students in 2007. The total funding for the technical college programme was estimated to be $585 million for the period 2005 – 2009. Each of the colleges received approximately $8.4 million to $24.8 million for the same period via funding arrangements (Australian National Audit Office, 2007, pp. 16,18). The Auditor-General's report mentions the speed at which the programme had to be implemented by DEST and the consequent difficulty in adequate planning. Consultation with State and Territory governments could have been improved, and internal and external performance indicators that would take account of the 'significant outlays' by the Commonwealth could have been developed (p. 20). As an example of the lack of forward planning for the colleges, the Australian National Audit Office (ANAO) report cited an instance where the students were enrolled in both the local school and the college, before the latter was registered as a school, as required by the Act (p. 20). The local school had indicated that it would not continue to cooperate with the college after the college became

registered as a school, and at that juncture, government funding would be reduced to the school since student enrolments at the school would have diminished.

Some colleges had to lease premises so that they could begin their programmes in the time frame set by DEST. It was more cost effective for the colleges to take out a longer lease, but when funding was withdrawn, the lease had to be paid out, and this proved a heavy financial burden. The ANAO stated that after the funding agreement expired in 2009, a college would have to bear the risks associated with the balance of the lease if funding did not continue. This was the case for the Australian Trades College, Perth South.

1.2.2 The Unique Australian Technical College Program

A flyer issued by the Australian Trades College (ATC) in Western Australia on 11 August 2010, when Mr Trevor Williams was Chief Executive Officer, stated that the college was "A unique pathway for the transition from school to work". As well as being a registered independent senior technical college for Year 11 and 12 students, it was also a Registered Training Organisation (RTO) and a registered Group Training Company (GTO). This meant that not only was it a school, but a training company and an employer of apprentices. The ATC commenced operation in 2007 as the Australian Technical College, Perth South, and it offered a unique educational model, focussed on the transition from school to work via an Australian School-based Apprenticeship (ASbA). This is a combination of academic, vocational and technical education and paid employment, where a student's school studies, training and work are integrated in the College curriculum. Young people could achieve their Western Australian Certificate of Education (WACE) and commence an apprenticeship (on a part-time basis) in their trade of choice. The structure and benefits of the 2 year program, the fees charged to students and the statistics concerning apprentice numbers during its years of operation can be found in Appendix 5.

A very important aspect of working in an industrial environment is for the employee to follow 'acceptable workplace behaviours'. This includes ensuring appropriate protective equipment is worn and following a professional approach regarding working in a hazardous environment. Whilst at the college a key focus of the

program was kept on these acceptable workplace behaviours. To do that the students worked in the workshop for at least half a day of every day, and in that way they were learning not only their trade skills, but what were acceptable workplace behaviours for which their employers were looking. After the first semester of year 11, the students were then indentured into an Australian school-based apprenticeship through which they would enter a five-week rotation between the college and the workplace. Therefore, as well as studying for their Western Australian Certificate of Education subjects, students were also employed under the Australian School-based Apprenticeship arrangement.

The college made a contribution towards the skill shortage needs that was being experienced in Western Australia at that time due to so many skilled tradespeople being employed in the North of Western Australia in the mining industry (Australian Bureau of Statistics, 2006), and at the same time they were offering students an opportunity to finish years 11 and 12, graduate from high school as well as finish their apprenticeship on a part-time basis. The college would give pre-apprentices assistance in finding work and college supervisors would check their progress regularly with their employers. Students saw this arrangement as a way towards secure employment. The college was also a 'Group Training Organisation' (GTO) which would recruit students who were deemed to have the potential to become apprentices under an Apprenticeship/Traineeship Training Contract and placed them with 'host' employers during the time they undertook their training.

While there already existed a system of Technical and Further Education (TAFE Colleges) which received funds from the Federal and State Governments, it would seem that 24 extra Technical Colleges in Australia would be superfluous, especially since TAFE courses could also be studied at school. School-based Apprenticeships (ASbAs) could also be undertaken at school and there exists a number of Trade Colleges wherein specialised trade training could be undertaken. The ATC was different in that it accepted students for whom the school system had apparently failed. Many students had behavioural issues or were antagonistic towards authority. The college environment was akin to a workplace – the core school subjects of English and Mathematics was enhanced by Business Studies, and later, Physics in line with curriculum requirements. However, there were not 'teachers' but

‘facilitators’ and students were encouraged to address these personnel by their first name, to give the students a full appreciation of being in a workplace. Facilitators were encouraged to set assignments that were relevant to the trade in which the student intended to be apprenticed. The workshops, originally funded by the Federal Government, contained the most up to date equipment on which the students could train. The same students that were ‘impossible’ at school generally became motivated by the possibility of useful education and training leading to lucrative and stable employment.

Over the years there have been a number of attempts by various Governments to implement Technical College programs that receive bipartisan support (Abbott & Doucouliagos, 2003, pp. 8-23; Committee on the Future of Tertiary Education in Australia, 1964). Funding restrictions, opportunistic political decisions and the fact that ‘The Opposition’ sees its role in ‘opposing’ decisions by the incumbent Government, be it Labor or Liberal, have been major stumbling blocks to progress in this area. It is because of this assumed role of ‘opposition’ to the incumbent Government that the Labor party categorically stated that as soon as it came to power it would seek to abolish the technical colleges set up by the Liberal party. Funding was therefore withdrawn in 2009 under the Labor Government of Prime Minister Kevin Rudd. With regard to the need for apprentices, nothing had changed. The ‘Mining Boom’ was at its peak and student enrolments in the various colleges was steadily increasing.

1.3 Purpose of the research

The main purpose of this study was to examine the reasons for the National establishment of the 24 technical colleges in 2005 and for withdrawing funding from the Australian Technical College, Perth South in 2009. The reasons for both decisions were complex and it was therefore necessary to delve deeply into the way in which historic and contemporary government decisions were made regarding funding for technical education and the historic and contemporary need for tradesmen for the country. The research therefore examines historical documents, reports and contemporary literature to draw parallels between government decisions concerning technical education in the nineteenth century with those made more recently. Interviews were conducted with former staff and students of the Australian

Technical College, Perth South, to establish contemporary reasons for the demise of the college. The research also compared technical education systems in other countries with that in Australia and different government approaches to, and populace attitudes towards, this type of education.

1.4 Research questions

Four research questions guided this study:

1. What were the underlying reasons for the new model of Technical Colleges to be formed in 2005?
2. What were the reasons behind the withdrawal of funds for Technical Colleges in 2009 leading to the demise of some colleges and the absorption of others into the TAFE or school system?
3. Did the perceptions of former staff, students and administrators towards the now extinct model of Technical colleges formed by the Howard Government in 2005 have any bearing on the demise of the college?
4. Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges?

1.5 Overview of the research methods

The research method was a single case study using a qualitative method for gathering data. The case in question was the rise and fall of a single technical college in Perth, Western Australia within the time constraints of its formation and demise. Qualitative data were gathered from historical records, accounts and documents to gain an understanding of the way in which governments have found the necessity to provide funding for technical education or to increase manual skills in general by apprenticeship and trade programs. Historical records were also researched to find any instances similar to the one in which funding was withheld from colleges solely for the purpose of ensuring their collapse.

Qualitative data were also found from interviews conducted with five former staff and two students. The staff were chosen for their first-hand knowledge of the college and included a former CEO, a former WACE (Western Australian Certificate of Education) Curriculum manager, a former Trades Training manager, a former Board

Chair and a former GTO (Group Training Organisation) manager. The students were chosen from two of the trades undertaken in the college. Codes and themes were derived from transcripts of these interviews to answer the research questions in the study.

1.6 Significance

By focussing on the rise and fall of one typical technical college in Perth, including reasons historical, political and financial, and making comparisons with other countries, it may be possible to make sense of what appears to be a rash decision. The results of the study could help future decision makers in Australia decide in which direction Technical Education will be headed.

The Australian Technical Colleges (Flexibility in Achieving Australia's Skills Needs) bill was introduced in 2005 (Australian Government, 2005) to enable expenditure on what were originally the 24 colleges to be set up Australia wide. Several amendments to the bill followed this. The original intention was for 300 students to be enrolled in each college. This was largely successful, although the full complement of colleges was not achieved immediately. It is important for this study to follow the arguments by the two sides of Government to fully understand the reasoning behind the concept of Technical colleges, and why they were positioned in the geographic locations chosen.

Government decisions are usually, but not always, based on recommendations by committees set up to create a report on perceived shortcomings of the existing system These committees call upon advice by experts in the required areas. In the education field it can be assumed that the experts would be educators, educationalists and others including various industry spokesmen, since it is the outcome of education that should drive the country to compete intellectually and innovatively in the World stage. In 2019 the Australian Trade and Investment Commission stated that "Australia sets the standard for excellence in education internationally". The political situation should therefore not impact on the report, and consequently should be a-political and impartial. The Government may choose to reject some or all the findings of a committee, or follow only those recommendations that make it possible

for the governing party to remain in power for a further term. (Parliament of Australia, 2018, p. Para 33).

It is the examination of these decisions that may be the most difficult aspect of research, but probably the most important. If the result of this study is to establish a bi-partisan solution for the advancement of technical education by examining the demise of the Australian Trades College (formerly Australian Technical College), Perth South, then all relevant Government decisions must be closely scrutinised. The placement of the two South Perth campuses is a good case in point. The locations of the two campuses of the Australian Technical College, Perth South, were selected because they happened to be marginal seats (when the leading candidate receives less than 56 per cent of the vote - (Government of Australia, 2016) for the Liberal Government led by Mr. John Howard, not because they were well-placed in the Perth metropolitan area. If the latter was the case, then a better choice may have been Joondalup and Mandurah, which are both new areas of increasing population of predominantly young families.

When the Liberal Government proposed the establishment of the 24 Technical Colleges in Australia, the Labor opposition immediately stated that it would abolish them when it came to power. The study will examine why this had to be the case, bearing in mind that the reasons for the establishment of the colleges was not apparently for political ends, and was supposed to benefit all Australians (Australian Government, 2005). From the foregoing, it can be argued that a study concerning the demise of a technical college has considerable significance.

1.7 Limitations

Since the study was based on the Australian Trades College, Perth South, only data collected from interviews with five prior staff and two students from that college were considered. All but one of the 24 colleges were closed, although most of them were absorbed into the TAFE system in various States (House of Representatives Australia, 2009). It was not possible to interview past staff of these other 23 colleges. It was considered far more relevant to the task of creating a sustaining model of technical education to concentrate on Perth South, since this college appeared to be

far more successful in continuing operation after withdrawal of Federal Government funding.

Another limitation was the relationship between the interviewer and the interviewees. The answers to the questions may not have been entirely impartial since the interviewer had worked with all the subjects. However, the questions were deliberately phrased to minimise bias in this regard. In addition, several interviewees that had been in similar positions were able to provide data. This aspect will be covered more fully in a later chapter.

1.8 Ethical Considerations

The ethical challenges that face a researcher in conducting interviews for qualitative research include the researchers' potential impact on the participants and vice versa, as well as anonymity, confidentiality and informed consent. (Halej, 2017, pp. 3,4)

Part of the interview protocol was to ensure that the participants were aware that:

1. They would remain anonymous, and that the interview notes transcribed from the narrative would give no direct indication of their identity (Anonymity);
2. Although the transcript of the interview would appear in the final thesis draft, it would remain confidential, and only used to gather qualitative data (Confidentiality);
3. Their consent was necessary for their responses to be used as part of the thesis (Informed consent).

Regarding 'informed consent', a process was followed of "continuous or process consent" (Allmark et al., 2009, p. 5) in which the researcher asked occasionally during the interview if it was acceptable to discuss a certain topic. Because the staff and students interviewed were no longer employed by the Australian Trades College, and the said College had no binding agreement with the Education Department, the interviewees were considered to be at minimal risk. Ethics Approval was gained on that basis. (See 'Ethics Approval' - Appendix 1) The staff and students in the research were given the opportunity to inspect the final draft of the study and would be able to choose to withhold any data that had been obtained from them during the study.

1.9 Overview of the thesis chapters

This introductory chapter has detailed the background of the study, explaining the formation of the 24 Technical Colleges throughout Australia from 2005 and their eventual demise after 2009. The 'Unique Program' devised by the board of the Australian Technical College was discussed, including issues of funding and student numbers. The four research questions were examined and the purpose and significance of the study was detailed. Finally, ethical considerations concerning the interviews conducted with former staff and students were discussed.

Chapter 2 will examine the relevant literature and historical data concerning the formation of technical colleges in Australia, Chapter 3 is concerned with the research methodology, Chapter 4 discusses the historical results, Chapter 5 examines the results of the data arising from examination of interview responses, Chapter 6 discusses the attitudes to technical education in other countries and Chapter 7 is concerned with the conclusions drawn from the data and possible future directions for research.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview of the Chapter

This chapter provides outlines the early history of the colony in NSW (section 2.2) followed by the history of technical colleges (section 2.3), the history and funding for technical education in Australia (section 2.4) and a chapter summary (section 2.5).

There was a desperate need for tradesmen in the early days of the colony in New South Wales for building dwellings and manufacturing and maintaining farming equipment. The need for tradesmen today is just as important as it was in those early times – possibly more so, with rapidly increasing urbanisation and such major events as the 'mining boom' in Western Australia. Certainly the number of tradesmen required is a lot greater. In this chapter, the historic need for tradesmen fosters a logical move towards the eventual establishment of Trades Schools. These were historically also known as Technical Colleges. It is important to explore the reasoning behind education in trades, when traditionally, apprentices were 'indentured' and any training given was by their employer, and specific to their trade.

The chapter also examines the literature concerning the funding of trades or technical colleges and whether this funding, which was initially from private sources for possibly altruistic reasons, became a government responsibility for a number of other reasons. While the 'Mining Boom' in Western Australia and to a lesser extent in Queensland with the subsequent skills shortage appeared to be a catalyst for establishment of technical colleges, examination of the literature would reveal a clearer picture of the underlying reasons for this.

2.2 Early History of the Colony

The arrival of the first colonists in NSW in 1788, with a total of 1480 mostly convict men, women and children from a number of different countries and the establishment of European settlement on 26 January, two days later, heralded the beginnings of

modern civilisation in Australia. From the very beginning, Governor Philip realised the necessity for some form of skill requirement to create the infrastructure of the colony, but initially at least, this was not regarded with the same level of importance by the British Government. According to the First Fleet database (http://firstfleet.uow.edu.au/search.html), of the 780 convicts that arrived, there were only two apprentices, and 63 whose 'declared occupation' was a skilled trade. There were a number of bricklayers, but just a handful of carpenters and cabinet-makers. It would appear that in the new colony, the latter skills would have been more in demand. Governor Philip had the foresight to carry over some basic agricultural and structural tools, but was unable to dictate his need for skilled labour to use them. Moyal (2017) has recorded that in 1788: "In planning the expedition Phillip had particularly asked for trained men among the convicts. But in that mood of prevailing indifference that seemed to engulf his masters at home, there were only twelve carpenters in the convoy." In a detailed account in 1793, Watkin Tench recalled that "the possession of a spade, a wheelbarrow, or a dunghill, was more coveted than the most refulgent arms in which heroism ever dazzled." (Watkin-Tench, 1793, p. 2) The convicts were mainly from urban areas, and rarely had the skills necessary for building a new colony. The British class system at the time may not have allowed the realisation that probably the most important body of people in this new colony were skilled or even semi-skilled tradesmen.

Governor Philip had a very challenging period in which to establish the new colony successfully. What he desperately needed were farmers to create a supply of food, and tradesmen capable of building houses. What he actually had were convicts whose skills in these areas were rare. The apprenticeship scheme in England had virtually ceased to exist in its traditional form, and 'farmers' and 'tradesmen' did not have the skills of their forbears. Aggravating the situation was the obvious human trait of 'lying' - falsely claiming a skill to possibly achieve a more comfortable situation.

The war between England and France took place between 1778 and 1883. This halted transportation of convicts to the new colony, which then found itself effectively isolated from the supervision of Whitehall (Goozee, 2001). It was unfortunate that Governor Philip's successors, Grose and Patterson, then later,

Hunter and King, had introduced and perpetuated to a great extent a hierarchical form of supervision, in which only the military or wealthy were allowed to own land. It should be understood that conditions for farming in Australia were extremely difficult. Initially, the plough, as has been stated, was non-existent, and didn't come into regular use until about 1803. Many of the original 'farmers' – convicts to whom Governor Philip had settled on large parcels of land – had left the land to pursue 'easier' occupations. As time progressed, these problems were overcome, but it was the need for skilled tradesmen and artisans that predominated thinking throughout those formative years.

The situation of the lack of skilled tradesmen was alleviated in 1851 with the discovery of gold at Bathurst in NSW and Clunes in Victoria. This was followed by more major finds at Ballarat and Bendigo in Victoria. Many able bodied men from England flooded the country in search of their fortune, and there were many good tradesmen among them (Murray-Smith, 1966, p. 84). The gold rushes also ushered in the end of convict transportation and the beginning of the accelerated economic expansion of Australia, especially in the Eastern States.

A number of 'trial shipments' of convicts that had been trained in trades skills in British prisons were sent to Western Australia before 1850. Apparently these 'shipments' were very successful. (Coghlan, 1918, p. 459). After 1855, when the colony became self-regulated, apprenticeships, which had previously been a source of 'cheap labour' for many land owners, were subject to a lot more regulation, giving apprentices better working hours and working conditions. The '48-hour week' was won in 1856 after the huge influx of tradesmen due to the gold rushes brought ideas of better working conditions as they drifted back to 'normal' work. The Union movement grew over the next decade, and it was instrumental in the formation of various schools of learning for the working classes, or 'blue collar workers' (The State Library of Victoria, 2016a).

2.3 History of Technical Colleges

2.3.1 Technical education in early Australia

Historical research has revealed the complex nature of successive governments' attitudes towards technical and trades education with funding from the State

Governments and the Federal Government. Before Federation, on 1 January 1901, when the British Parliament passed legislation allowing the six Australian colonies to govern in their own right as part of the Commonwealth of Australia, private individuals funded 'technical colleges' out of necessity, because the survival of the colony depended upon skilled tradesmen.

Reports on Technical Education in Australia date back to 1822. The earliest reports, understandably, are from New South Wales. In the Bigge Report of that year, recognition of the requirement for what we now call tradesmen was made in the construction of the colony (Bigge, 1822, p. 25). Of particular interest in this early report, appears to be the relatively unsuccessful attempt to integrate 'emancipated convicts' into society. This cultural divide may be related to our own experience in the present day, where there appears to be the same divide between 'blue collar workers' and 'white collar workers'. The 1880's saw the start of the Union movement in NSW, and there was a massive maritime workers strike in 1890 (Auckland Labour History Group, 2010). This era spawned the formation of the Labour movement. Moving on to Western Australia, the 1891 report from the Committee on Technical Education was concerned with "the desirability and practicability of introducing technical education into the more important Government Boys' Schools and the High Schools in Perth" James (1891, p. 3).

There has been quite extensive and in-depth documentation of Technical College history since the establishment of the colony of NSW in 1788. Probably the most comprehensive and helpful information, pertinent to this study, has been from an excellent thesis by Murray-Smith (1966), in which he summarises that: "We are still affected by the ambivalent nature of the origins of technical education, still not clear in our own minds as to what our own responsibilities to the development of our own country are." (Summary section para 5.)

A necessary requirement to foster the need for establishment of a 'trades college' was the need for tradesmen. Freyne (2010b) refers to technology in the late nineteenth century as being the "harbinger of modernity and prosperity" and that "technical skills were needed to meet the challenges of the industrial age" (p. 1). In the early years of the colony in NSW, those with trades skills were highly prized and it can thus be argued that the teaching of these skills has an importance that cannot

be underestimated, despite those involved being from what used to be called a 'lower class'. An excellent conference paper written in 2010 for the National Centre for Vocational Education Research examines the role of convicts in the progression of technical education in the fledgling colony. It appeared that, at least in the early days, it was considered more beneficial to select skilled workers from migrants rather than to develop skills necessary for growth of the settlement in New South Wales. As transportation was being brought to an end in the 1840s, Beddie (2010) notes that employers thought more about how to import skills rather than developing them at home (p. 6).

2.3.2 Mechanics Institutes

Technical Education began in England as Mechanics Institutes Libraries around 1799 when George Birkbeck, (1776-1841), a Professor of Natural Philosophy, began lecturing local 'mechanics' who had been building experimental apparatus he required. He lectured to an ever-increasing number of students at the Anderson's Institute, named after its founder and benefactor, Dr John Anderson (1726 – 1796). (Evans, 2009). Goozee (2001) notes that:

> Australia was swift to join this movement with the first Mechanics Institute being established in Hobart in 1827 and the Sydney Mechanics School of Arts being established in 1833. By 1840, Newcastle, Melbourne, Adelaide and Brisbane had all established similar institutions (p. 11).

A 'Mechanic' in this era referred to tradesmen or skilled craftsmen whose job it was to maintain machinery required for the on-going Industrial Revolution.

In England, the Mechanics Institutes provided training for tradesmen and 'indentures' were offered by private individuals, which later became known as apprenticeships (Dolan, 2010, Oct 4). Mechanics Institutes were the fore-runner of Technical Colleges and a quote in 1859 from the Castlemaine Advertiser in Victoria is quite significant. It stated that:

"The necessity for a mechanics' institute in every town is so well appreciated nowadays, that a long disquisition on the merits of such a question, are altogether unnecessary" (Baragwanath, 2011, p. 6).

It should be remembered that this was only a mere eight years after the gold rushes of 1851, which signalled the end of 'transportation'. The Guardian in 2011 recalls that Mechanics Institutes "were the first adult education schools, libraries and public halls in Australia, sometimes called poor man's universities or workingman's colleges" (Baragwanath, 2011, p. 6).

Following the establishment of the Edinburgh School of Arts in Scotland in 1821, the Van Diemen's Land Mechanics' Institution was opened in Hobart in 1827 and the Swan River Mechanics' Institute was opened in Perth in 1851. The construction of Melbourne's Trades Hall and Literary Institute in 1859 by the then established unions, was to educate workers and their families (The State Library of Victoria, 2016a).

Petrow (2006, para 3) recalled that "Most mechanics' institutes failed in their educational aims and became congenial places of resort for middle-class patrons, including women." The sobering fact was that in the early days at least, tradesmen were far more useful than academics in building the fledgling colony of NSW.

The University of Sydney was Australia's first University, proposed by William Charles Wentworth in 1850 and opening its doors in 1852. Wentworth was an explorer, writer, and lawyer. (The University of Sydney, 2017) The NSW University of Technology had its roots in the Sydney Mechanics' School of Arts which was established in 1833. This is the oldest continuously running Mechanics' Institute in Australia (Freyne, 2010b).

Almost without exception Universities and Technical Colleges such as NSW University of Technology, the University of Melbourne, Victoria University and Curtin University in Perth are reported to have their beginnings in the Mechanics' Institutes of the nineteenth century. This is true, but the modern University and the Mechanics' Institutes of yesteryear appeared to be poles apart. The Mechanics' Institutes conducted lectures and classes for the "advancement of science" rather than for any training or instruction in industrial skills (Murray-Smith, 1966, pp. 54-56). At the first Mechanics Institute in Hobart in 1827, lectures were conducted in "engineering, mechanics and steam engines", although a wider subject matter was covered at the Mechanics Institute in NSW, which was established in 1833, with

lectures on "engineering, mechanics, natural sciences and the arts" (Beddoe, 2003, p. 124). The Swan River Institute in Western Australia conducted weekly discussion meetings on a variety of subjects, as was common with other institutes, but religion and politics were excluded. One has to contrast this with modern Universities in which a plethora of subjects can be studied with no general discussion meetings.

It would appear that Mechanics Institutes were established in Australia to supply the need for tradesmen, whose skills were so important for building the colony. It has to be said that the original idea of Mechanics Institutes was to encourage a more technical aspect of education for trades people of the day, but tradesmen failed to show the necessary commitment and attendance numbers progressively reduced when it was found impossible for the institutes to conduct a "full program of technical courses". The specialised subjects offered did not appeal to the trades people. (Beddoe, 2003, p. 125)

Students flocked to attend the Mechanics Institutes that became very popular, as they offered the supposedly 'working class' a real future (Freyne, 2010a). However, the actual situation was rather different. The Institutes became the province of the wealthier students, and the 'working class', for whom the Mechanics Institutes were originally established, gradually became disillusioned by the concept. They suffered an inevitable decline, as the realisation of the false promise became evident (Royle, 1971, pp. 307-309).

While a number of historians, like Royle (1971), had concluded that the Mechanics Institutes were a failure in Australia, quite the opposite argument is posited by Baragwanath (2011):

> "To me they were so obviously successful that maybe we take them for granted. They provided essential venues and services for the first 100 years of settlement and through their own democratic integrity have forwarded the advancement of human achievement." (p. 7)

A similar view was promulgated by John Woolley, who in his inaugural lecture at the Mechanics' School of Arts in Sydney in 1860, was adamant that although the situation had changed, the institution (Mechanics' School of Arts) had risen to the occasion:

> "Without abandoning our original design, we have superadded so much that it can scarcely be recognised. We include now amongst our members, not mechanics alone, but all those who are conscious that education is the work of a life-time, not of a few years; and by education we understand everything which contributes to furnish a man with those powers and motives which will enable him faithfully to fulfil the mission assigned to him in this world" (p. 16)

2.3.3 Working Men's Colleges

Early technical education for trades was established in 1865 by the Sydney Mechanics' School of Arts, which also established the Working Men's College in 1878. However, it was really the establishment of the Working Men's College in Melbourne in 1880 by Francis Ormond that saw the real beginnings of Technical or Trades education (Murray-Smith, 1966, p. 265). In 1910 the Victorian Government passed an Education Act that gave them greater control over technical education. The Act allowed them to incorporate vocational education into State secondary schools, similar to an already established initiative in Germany. It is interesting to note that in 1891, less than twenty years earlier, a report by the Committee on Technical Education included a statement: "We do not advocate the teaching of trades in schools. These might be concurrently learnt elsewhere" James (1891, p. 3).

The gold rushes of the 1850's really changed the focus of technical education. There was a huge increase in the population of the colony and technical education was leaning more towards the study and maintenance of equipment used in the mining industry. Skilled labour was in more plentiful supply, so the need for trades training and apprenticeships was considerably diminished. Although Murray-Smith (1966) appears to argue that class divisions in the years following the 1850 gold rushes were becoming blurred due to the march of democracy since: "democracy involves not only the direct influence of a nascent working class, but an evolution from middle class patronage to questions of engagement and alliance between classes" (p. 86), it can be argued that the wealthy upper classes were apathetic to the financial requirements of technical education for the working class. The unions and workers themselves, for instance, were responsible for providing the funding for the

establishment of Melbourne's Working Men's College. It was six years in the making, and opened in 1887 (The State Library of Victoria, 2016 p. 2).

Following the decline of the Mechanics' Institutes, similar 'Working Men's colleges' were established in other states, and in 1878, £20,000 was allocated by the New South Wales parliament towards the construction of a building as part of the Mechanics' Institute in Sydney. These Working Men's colleges were the fore-runner of Technical colleges, and in 1883 in Sydney, the Board of Technical Education took control of the management of the colleges. (Beddoe, 2003, p. 125). Similar Governmental intervention in Victoria into educating the working man could be partly the result of a groundswell of opinion that "Victoria's sons must be in a position to direct the 'lower branches of labour' to be obtained by immigration, and, to 'enable them to do this, must be educated aright'" (Brand, 1857b, p. 23).

Following the unexpected affluence of the colony due to the gold rushes, the Eight Hour Day was won on 1 May 1856 after the Victorian Operative Masons' Society argued over a number of years that the harsher Australian climate was detrimental to the health of working men (Hughes, 1961, p. 397). It is around this time that the Australian Labor Party was formed. (It was called the 'Australian **Labour** Party' before 1912). There had been a proliferation of Trade Unions and working class militancy in the 1890s and the roots of the contemporary Australian Labor Party lay solidly in these Unions (Conrick, 1972, p. 1).

2.3.4 Technical education in the twentieth century

The beginning of the twentieth century coincided with the Royal Commission on Technical Education in Victoria, titled the 'Fink Report'. This report recommended a new type of secondary technical school, and a new syllabus was introduced in 1902, which placed a greater emphasis on science. (Fink et al., 1901). Subsequently, Victoria's first public secondary school was established in Melbourne in 1905, but the state's secondary school system was not fully implemented until 1911.

In a report written in 1922 by Sweetman, Long and Smyth, referring to the Education Department and the Royal Commission on Technical Education, it was stated that:

> "The new Department has organized all types of primary, continuation, technical, and secondary schools into one system, and is bringing them into

> the closest co-operation with the home, the farm, and the workshop, with commerce, and with the University in the task of developing the pupil and fitting him for the work of life" (Education Department of Victoria, 1922, p. 184).

Under 'Federation' on 1 January 1901, the British Parliament allowed the six Australian states to govern in their own right, and the Commonwealth of Australia became a constitutional monarchy. Although Western Australia only joined the Federation after it had secured a promise that a railway would be built, it held a referendum to secede from the Federation in 1933. It is interesting to note that although there was 68% support for secession, the British Parliament (and the rest of Australia) would not allow it.

'Differentiated Schooling', or *differentiation,* which has been used for many years since the nineteenth century at least, could be supported as being beneficial to students. Campbell (2014) refers to differentiation as a term that separates and describes groups of students and the processes that select and sort them using grouping technologies that had become quite widely used in the twentieth century.

In a practical sense, personal experience of differentiation was of a group of higher-performing students being 'moved up' to a higher class for the last six months of the school year in Primary school. Competition was encouraged and allowed some students to exhibit their true potential. Differentiation of this nature is deemed anachronistic today, and largely replace by 'competency-based testing', in which it is only necessary for students to achieve the desired level of competence in a particular study area or section of the syllabus. It may be arguable that this has resulted in an alarming fall in educational performance in mathematics, science and reading over the years from 2003 to 2015, as the PISA key findings for Australia have shown (Organisation for Economic Co-operation and Development, 2016).

The early part of the twentieth century saw the various State and Federal Governments assuming an increasing role in the establishment of Technical Education facilities. By 1918, in South Australia, this culminated in the establishment of a system of technical education, a system of secondary schools and a university. By 1920 the concept of 'streaming' of students into trade areas had been

introduced, with Catholic schools and some girls' schools introducing technical schools into their systems. This was an unpopular progression for some of the educational theorists and bureaucrats of the time, who may have seen it as allowing the 'working class' to assume greater importance in education. However, the concept had started to bring pressure to bear on governments, and the 1928 Apprenticeship Act in Victoria required compulsory schooling for each trade.

It was during this post-war period that apprenticeships assumed greater importance and apprenticeship authorities were set up in all states from 1918 to 1928 to oversee both the employment and training areas of apprenticeship. However, Australia was slow to follow the lead in Europe for day release for trade training taking until 1943 for its national implementation (Goozee, 2001, p. 16).

2.3.5 Contemporary technical education

The Technical Education Commission in NSW established by David Drummond found that technical education was both under-valued and under-financed. It recommended that trade schools should be known as technical colleges and that the total expenditure for technical education should be increased (Goozee, 2001, p. 17). However, up to 1970, the lion's share of expenditure was still allocated to compulsory schooling.

The election to government of the new Australian Labor Party in 1929, together with other influential bodies, such as the Victorian Trades Hall Council and the Chamber of Manufacturers, as well as technical school councils was responsible for the technical school system to be retained throughout Australia (Melbourne Polytechnic, 2013). The new generation of departmental leaders would have liked to merge all technical schools into the secondary school system, although this did happen with another Labor government in the 1980s (Burke & Spaull, 2001, p. 5). One would think that a political party founded on the support of the 'Working Class' would be most concerned about the welfare and education of that group. In the light of more contemporary events, that does not seem to be the case, any more than that of the Liberal Party. (It was the Australian Labor Party that withdrew funding in 2009 for the 28 Liberal Party founded Technical colleges causing their demise.)

2.3.5.1 Walker, Murray, Martin and Karmel Reports

Following the report of the Walker Committee in 1943, which was established to 'consider the general problem of the co-ordination of the various activities of the Commonwealth within the education field' (Tannock, 1975, p. 4), the Federal Government, due to a change in the Constitution, was able to provide more financial assistance to education. A number of committees were set up to make recommendations to improve university and technical education following the Walker recommendations. These included the Murray committee of 1957, the Martin committee of 1961 and the Karmel committee of 1973.

The Murray report's main recommendations concerned universities and that technical colleges should only involve themselves with non-professional training. (Goozee, 2001, p. 20). The Martin report recognised there was "undue emphasis on university education. As a result, the weakness of non-university tertiary institutions prevents the latent abilities of many young Australians from being fully developed." (Committee on the Future of Tertiary Education in Australia, 1964, p. 171)

The Martin committee also believed that "it is important that the educational status of technical colleges, teachers' colleges and other tertiary institutions be improved" (p. 171). It seemed that there was still, even in the late twentieth century, a conflict regarding emphasis between universities and technical colleges regarding status and funding.

2.3.5.2 Australian Committee on Technical and Further Education and the Kangan Committee

By far the most far-reaching changes to technical education were made after the National Enquiry into Technical and Further Education submitted its report in 1973. The Labor Party had come to power in 1972 on a platform that included 'equality of opportunity', and in particular, this meant equality in education, health and welfare. It had become evident that technical education had become the 'poor relation' of the education system, and Kim Beazley, the Minister for Education in the Labor Party together with Clyde Cameron, the Minister for Labour and Immigration, established a Commission on Technical and Further Education to address this. Myer Kangan, the deputy secretary of Clyde Cameron's department was nominated to head the enquiry,

which concluded that: “The main purpose of education is the betterment and development of the individual, people and their contribution to the good of the community. Technical and further education should be planned accordingly. Emphasis on the needs of the individual should lead to easier access to learning” (Kangan, 1974, p. xxiii Vol 1)

The Australian Committee on Technical and Further Education (ACOTAFE) was established following the recommendations of the Kangan enquiry. ACOTAFE made it known that “TAFE had too often been thought of as something different from a tidy mainstream of education—primary, secondary and tertiary—and should be regarded as an alternative, neither inferior nor superior, to the other streams of education”. (Goozee, 2001, p. 25).

This report only sought to improve the technical education system and did not draw comparisons between TAFE and universities. It could be argued, however, that this appeared to be a conscious attempt to overcome the ‘working class’ disadvantages of the early twentieth century. This was reinforced by the statement: “The proper perspective for the fourth quarter of the twentieth century is for technical and further education to be seen as an alternative - neither inferior nor superior - to the other stream of education, but so organised as to enable interchange without personal disadvantage.” (Kangan, 1974, p. xxiii Vol 1).

Relevant to the present study was the conclusion that as long as youths were prepared to study “at a technical college full time in the trades area for a period” that the period would be credited as part of their apprenticeship “should they subsequently enter the trades” - (Kangan, 1974, p. xxxi Vol 1) This conclusion appeared to encourage the later decision by John Howard’s Liberal Government to form Registered Trade Organisations (Technical Colleges) in 2005, independent of TAFE colleges.

The abolition of tertiary education fees by the Whitlam Government in 1975 allowed access to technical and university qualifications to a huge number of people who would otherwise have decided against this level of education due to its cost and their own socio-economic status. In a speech by Mr. Kim Beazley supporting the tabling of the Kangan committee’s report in Parliament in 1974, he stated:

> "The report … abandons the narrow and rigid concept that technical colleges exist simply to meet the manpower needs of industry, and adopts a broader concept that they exist to meet the needs of people as individuals . . . The report takes a long step in the direction of lifelong education and of opportunities for re-entry to education" (p. 48).

It would seem, therefore, that the concept of 'working class' was no longer an issue, since 'inequality' had been addressed very forcibly by the Kangan committee, and Gough Whitlam. One would assume that the recommendations of the Kangan committee would be wholly embraced by the Government, but in 1975, the Labor government under Gough Whitlam was forced out of office and a new Liberal government under Malcolm Fraser was sworn in. The Commonwealth Government did, however, allow an increase in funding for technical education, which enabled TAFE colleges to flourish. The Richardson Report in 1975 drew attention to the "Cinderella Image" of TAFE, suggesting that the provision of more funding would enable some parts of the TAFE network to be established closer to residential areas for easier access by students (Australian Committee on Technical and Further Education, 1975). Even Myer Kangan was a little critical of TAFE's role. In a speech he made some years after the Kangan report was released, he referred to TAFE having "…a poverty status that was too deeply embedded in the mentality of Commonwealth politicians and Commonwealth Public Service administrators" (Kangan, 1980, p. 13). Additionally, one would wonder about the altruistic nature of Government regarding the benefit of decisions such as that reported by Barbara Bee in her 2014 thesis: "Right-wing conservative governments do not champion equality or social justice – witness the actions of a state Liberal Government in New South Wales which closed down NSW TAFE Women's Programs in 1988" (Bee, 2014, p. 44).

Following the Kangan report, there seemed to be a number of problems within each State that could have been avoided if only the Constitution had allowed Technical and Further Education to be under the total control of the Commonwealth. In NSW, one recommendation of the working party appointed to draw up recommendations for the establishment of an Education Commission was "That the present Departments of Education and Technical and Further Education remain separate

administrative units under the Commission; that there be separate teaching services for schools and technical and further education; and separate budget provisions for each" (New South Wales Government, 1977, p. 12)

In Victoria, similar sentiments were expressed in a submission prepared for the Williams Inquiry by the Curriculum Board in December 1977. In addition to a realisation that TAFE "was also regarded as 'the poor cousin' in the joint CAE/TAFE institutions." (Goozee, 2001, p. 41), the submission stated that:

> "We believe that while the TAFE organisation remains enmeshed within the wider Department, and its objectives and operations are hampered by primary and secondary school teaching in the top administration, and by the Teacher's Tribunal, it cannot be fully effective. In fact, we are concerned that TAFE may be prevented from developing sufficiently to meet the future challenges that we would hope would flow from your Inquiry. We therefore believe that the administration of TAFE should be separated from that of primary and secondary schools" (Ryan, 1982, p. 18).

The 'Deveson Report' - the Training Review Committee, 1990 or the Commonwealth 'Training Costs of Award Restructuring' - was really the trigger for reforms in the VET sector. This report emphasised the importance of private training providers alongside TAFE providers of technical education. Anderson had found that

> "Since its formal establishment following the Kangan report (1974), the TAFE system has enjoyed a virtual monopoly over government-funded vocational education and training and almost exclusive control of publicly recognised vocational qualifications." (D. Anderson & National Centre for Vocational Education Research, 1994, p. 3).

While there was an unprecedented growth of TAFE in the late 1970s and early 1980s, Goozee (2001) points out that

> "…there was also the start of the tendency for Commonwealth bodies - particularly The Department of Immigration and Ethnic Affairs (DEIR) - to develop new programs which were required to be implemented with very short lead times, then to either change the program or withdraw funding. The withdrawal of funding or the imposition of a requirement for States to fund a

> certain amount of places in order to gain the Commonwealth funds became common with pre-vocational and pre-apprenticeship courses." (p. 38)

This restriction would also have applied to the Australian Technical College system after the 24 colleges were established in 2005. In the end it was the withdrawal of funding that caused their ultimate demise. It is hard to understand this attitude, because the 'Skills Shortage' in Western Australia was causing many problems during the mining boom, and the Technical Colleges Act of 2005 was supposed to address these problems. The principal object of the Act was to "provide for the establishment and operation of Australian Technical Colleges in order to provide trade skills training, education and mentoring for young Australians" (Australian Government, 2005). Promotion of pride, excellence in trade skills training, with an industry-led approach that was relevant to industry to build a "solid and rewarding career" (Australian Government, 2005) for students were some of the main aims of the Act. The colleges themselves would be autonomous and would have an industry-led governing council.

It could be said that Australia had a skills shortage from the time the colony was established. Certainly Governor Philip found that skilled tradesmen were in very short supply when the First Fleet arrived:

> "although we know little about individual convict consignments we know enough to say that men of the foreman level and above were rare enough in them, and often unwilling to admit their special skills even when they possessed them." (Murray-Smith, 1966, p. 4).

More recently though, the 'mining boom' in Western Australia's Pilbara region created a more modern version of this skills shortage. Prime Minister John Howard in 2005 stated: "... I do not wish for a moment to underestimate the problem relating to skills. ... But it is a challenge, it's not a crisis, and we should approach it as such" (Howard, 2005). The Prime Minister was responding to a report by the Australian Bureau of Statistics in 2005, regarding the "movements in a range of labour market indicators….as well as a number of indicators obtained from labour market surveys" (Australian Bureau of Statistics, 2005) with the conclusion that Western Australia did in fact have a skills shortage.

2.4 History of Funding for Technical Education in Australia

In the early days from 1833 in NSW and 1839 in Victoria, Mechanical Institutes were privately funded, but as the infrastructure became more firmly established, Government policy of the day dictated the allocation of funds. Funding allocated specifically for Technical Colleges were generally initiated by various reports which usually tried to address the imbalances of the education system at the time and for many years, technical education was the 'poor relation' while funding for schools, both primary and secondary as well as universities, was prioritised. "Throughout its history, there has been conflict between technical education and the other sectors of education, particularly universities, about what has been an appropriate role" (Goozee, 2001, p. 9).

2.4.1 Early Funding 1850 - 1900

Apprenticeships in the early days entailed attachment, or 'indenture', to a skilled tradesman for a period of some years. Payment was usually in kind, being meat, drink and clothing in many cases. There is an example of an apprentice indenture certificate from 1640 in the United States in which a Thomas Millard agrees to

> "bynd myself as an apprentice for eight yeeres" and that the employer, not only agreeing to supply him with food and work clothing but it was also understood that at the end of the apprenticeship Mr Millard would receive "one new sute of apparel and forty shillings in mony" (United States Department of Labor, 1969 p. 1)

This form of employment and the 'payment' for training continued in the colony from the time of the First Fleet, although there were very few skilled tradesmen that had been transported to the new colony. (Murray-Smith, 1966, p. 2). It was between 1870 and 1885 that Australia experienced a huge population and economic growth, bringing about a growing pressure for increased technical education.

The Governor of Queensland in 1872, Mr George Phipps was reported in the Queenslander as saying that he:

> "…considered that it was a very bad habit in. a young country for the people to look to the Government to supply their wants. In a free country like this

> they should remember all men should try to help themselves before they asked others to help them, and he was sure that they would feel considerably more satisfaction in using these institutions when they felt they were their own property, provided by their own exertions, than if they owed them to any extraneous aid from the Government of the country." (Phipps, 1872, p. 3)

Contrary to this notion, the early Mechanics' Institutes founded by George Birkbeck in 1799 failed a few years later through lack of funding. As Jane Dolan found during her research into Mechanics' Institute Libraries:

> "Rarely did the funds available from subscriptions cover the expenses incurred in building and running the mechanics' institutes, let alone furnish them and stock the shelves with books. From the earliest days the Melbourne, Geelong and Castlemaine Mechanics Institutes existed because Government funding allowed them to." (Dolan, 2010, Oct 4, p. Para 5)

Following the reduction of working hours to eight hours a day in 1856, Francis Ormond, a member of parliament and a noted Victorian philanthropist, in suggesting the establishment of a technical college for working men and women, offered to match any funds raised by public subscription if the college site could be provided by the government. Contrary to Ormond's expectation that the wealthy and 'upper classes' would contribute to the funding, it was the workers themselves and their Unions that actually provided £5 for every £1 contributed by employers, enabling the college to open in 1887. (The State Library of Victoria, 2016b, p. Para 5)

It wasn't until 1875 that Government funding was allocated to education, and Goozee (2001) noted that a £2500 grant being made available for the establishment of a Working Men's College in NSW (p. 12) The concept of a Government subsidised Working Men's College superseded the privately funded Mechanics Institutes and Schools of Arts that had sprung up in the early part of the century. There was a general realisation that education needed to be put under a more centralised control, and in 1882 the Government created a Board of Technical Education to administer the new Working Men's College, which had up to then been partially controlled by the Committee of the Sydney Mechanics School of Arts. The Committee on Technical Education Report in 1891 recommended "Legislation in the

direction of aids for the supply of technical instruction by empowering municipalities to levy for that purpose a rate not exceeding one penny in the pound".

2.4.2 Funding 1900 – 1960

The International Conference of Technical Education held in London in 1897 was responsible for a number of political initiatives in Australia a few years later. The conference had "created a growing belief that the European technical training systems were superior to the British and, therefore, the Australian systems." (Goozee, 2001, p. 14). These initiatives included Victoria's Fink Commission (The Royal Commission on Technical Education 1899-1901) and similar inquiries in other States in the following few years proposing a "coherent and progressive development of technical training from kindergarten to university" (Goozee, 2001, p. 14). These political initiatives opened the way for Government funding of technical colleges and universities.

Although the University of Sydney in NSW was established in 1850, and funded by State endowment, the main thrust of Political involvement took place in Victoria. The Education Act of 1910 allowed the Education Department of Victoria to increase its influence by including vocational programs in its new secondary school system, but more relevant to this study was the assumption of direct control over such new colleges as Footscray in 1916, and Caulfield in 1922. Junior Technical schools were established and funded by the Government, which gave youths access to pre-vocational education and night classes. Elkner (2008) noted that "Technical schools offered a three-year pre-vocational course before students proceeded to a trade or other employment" (Para 4).

The Technical Education Commission established in 1933 by the New South Wales Minister for Education, David Drummond, to inquire into the State's technical education system, presented its report in 1935. It recommended the abolition of the term 'Trade School', and the formation of 'mobile teaching units' to address the difficulty of receiving proper trade training in country areas. There was a steady expansion of technical education through the early part of the twentieth century, and with the advent of war with Germany from 1939 to 1945, an increase in Australian manufacturing was responsible for an increased demand for people with trade skills.

The McKell and McGirr Governments in NSW increased technical education expenditure from £625,944 in 1940 to £2,174,612 in 1950 – increase of over 200% (Bradford, 2010, p. 26). Despite the fact that the Australian Constitution had specified support of education by the various States, it was the Federal government that funded the Melbourne colleges – the Melbourne Printing and Graphics Trade school (1948), the Melbourne School of Textiles (1949) and the Batman Automotive trade school (1950) (Elkner, 2008). Goozee (2001) is quite critical of the level of funding provided to technical education in this period though: "The 1950s and 1960s were therefore periods of growth for technical education, but, although funding had improved in some States, it still did not match the growth in the system which still had to cope with inadequate facilities and equipment" (p. 19). The Melbourne colleges later became part of the TAFE network, which was funded by the Commonwealth from 1974, following the report of the Murray Committee in 1958.

It has already been mentioned that the Australian Constitution allowed little direct control over education by the Federal Government, and that education was deemed to be a State responsibility. The Curtin Government in 1942 introduced the 'Constitution Alteration (War Aims and Reconstruction) Bill' by which certain matters including vocational training would become the responsibility of the Commonwealth. A referendum was conducted in 1946 in conjunction with the election, which saw the Chifley Government returned. This referendum was passed by the Federal Government in the 'Constitution Alteration (Social Services) Bill', and authorised the provision of 'benefits to students' among other things. This allowed the Commonwealth to have a greater power over education. In fact, since 1950 there has been an increasing Federal Government involvement in education: in the schools sector; TAFE; Vocational and Higher education, as well as in education policies. Capital grants have been made to the states for science laboratories in 1964; secondary school libraries in 1968 and from the 'States Grants (Primary and Secondary Education Assistance) Act (1992)'

2.4.3 Present Funding

When Robert Menzies' Liberal-Country Party defeated the Labor Party led by Arthur Calwell in 1963, the Prime Minister made grants for technical scholarships that were able to be used for scholarships and grants for technical colleges. This occurred due

to some States not having technical schools, for which the grants were originally intended. In these States, departmental officers 'translated' them into grants for technical colleges. Under this system, a total of $116 million was paid by the Federal Government between 1965 and 1975 (Robinson, 1990).

Contemporary landmark decisions regarding tertiary education included Gough Whitlam's Labour Government abolition of fees in 1974, the Finn Report of 1992 ('Young people's participation in post-compulsory education and training') and the 'States Grants (Primary and Secondary Education Assistance) Act (1992)'. This has now been replaced by the 'States Grants (Primary and Secondary Education Assistance) Legislation Amendment Bill 2004'.

The abolition of tertiary education fees by the Labor Government led by Mr. Gough Whitlam in 1974 was a paradigm shift in thinking for the Federal Government. As has already been stated, the Australian Constitution made the support of education a responsibility of the various States, but there is provision under Section 96, as has already been stated, for the Government to make grants to the States and dictate how those monies are spent. Under Section 51(xxix), the Government can also use its External Affairs powers to influence education policy, arguing that it would affect Australia's relationship with other countries. It was, however, the interpretation of Section 96 under which Gough Whitlam was able to abolish tertiary education fees in the States.

Using the 1992 Finn Report, the 'States Grants (Primary and Secondary Education Assistance) Act (1992)' gave a substantial boost to funding of tertiary education. As reported in Hansard on 30 April, 1992, Mr Beazley (Minister for Employment, Education and Training) said:

> "The Bill targets full time students at or above the level of year 10 or its equivalent who are under 21 years of age. This is consistent with the Finn report's emphasis on young people. Provision is made for students undertaking courses in schools and education and training institutions including institutions which are registered under a State or Territory law."

According to Mr Baldwin (Minister for Higher Education and Employment Services) on 7 May 1992, concerning the Higher Education Funding Amendment Bill 1992:

“The purpose of this Bill is to amend the Higher Education Funding Act 1988. The Act provides Commonwealth grants of financial assistance to the States, the Northern Territory and higher education institutions for the provision of higher education. This Bill provides increased funding for higher education institutions of $46.7m in 1992, $29.7m in 1993 and $9.5m in 1994.” Following the Higher Education Contribution Scheme (HECS) whereby students could defer payment of their tuition fees until they became employed and introduced into Australia’s Higher Education sector in 1989 by the Education Minister John Dawkins, ‘Vet-Fee-Help’ was started in 2008 as part of the Commonwealth’s Higher Education Loan Program (HELP). Forward (2015) noted that “Since its introduction in 2008, Commonwealth Government funding for VET FEE-HELP has grown at an extraordinary rate – from $25m in 2009 to about $1.3b in 2014” (Para 2) .

By 2000, the major funding for education was being provided by State governments, rather than by private sources. While tuition fees had been removed for technical and vocational education in 1974, they had been re-introduced in some part by the late 1980’s. The Higher Education Contribution Scheme was introduced in 1989, which covered about 20% at the time of the costs for courses. This proportion has been increased in more recent years (Burke & Spaull, 2001). In 2005, the Howard (Liberal) government had proposed 24 national technical colleges and a total of $550 million in funding. It then amended the Australian Technical Colleges, increased the number of colleges to 28, and the funding was to be spread over the years up to 2011 as shown in Table 2.1.

Table 2.1

Financial Assistance to Australian Technical Colleges from 2005 - 2011

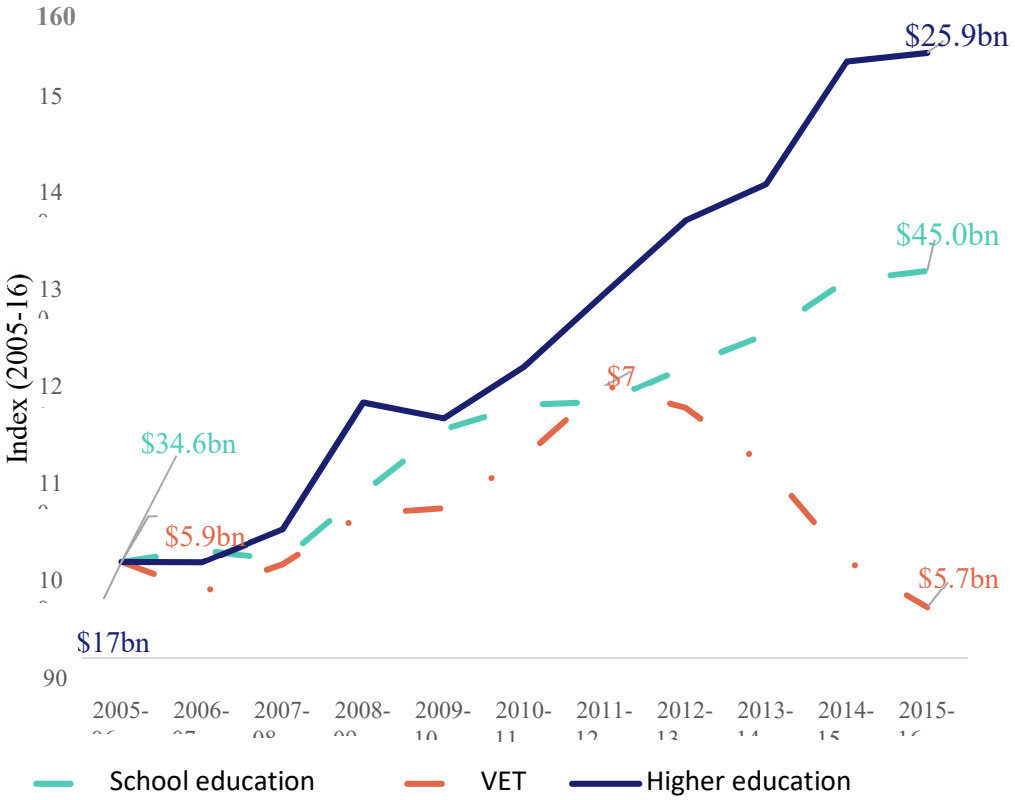
Year	Amount ($)
2005	15,810,000
2006	118,357,080
2007	148,981,588
2008	118,400,087
2009	96,603,544
2010	15,823,000
2011	16,951,000
Total	530,926.299

Source: (Flexibility in Achieving Australia's Skills Needs) Act 2005

(Sourced from the Federal Register of Legislation at 20 March 2015)

Aside from the expenditure on Technical Colleges, a recent report by the Mitchell Institute in Melbourne details the steady reduction in expenditure on VET since 2011-12, while expenditure on Higher Education has nearly doubled over the same period. (See Figure 2.1)

Figure 2.1: Expenditure on education by sector 2005-06 to 2015-16 (base year 2005-06 = 100)



Source: Mitchell Institute analysis of Australian Bureau of Statistics data (custom request)

(Pilcher & Tori, 2017, p. 4)

2.5 Australian Technical College Formation

According to the Australian constitution, education is the responsibility of the state and territory governments; although the federal government does partially fund private schools, vocational and higher education. While vocational education funding was originally channelled via the individual states and territories, for the Federal government to directly fund tertiary education in this way was very unusual. Part of the reason for this was a breakdown in co-operation between the Howard Government and the States.

The areas in which these new colleges were to be placed was chosen by the Federal government. There was a tendering process, in which church groups, for-profit companies and state and territory government were involved. Once again, this was quite unusual, since the federal government was effectively funding a number of

private schools. As to be expected, there was a lot of opposition to the proposal. The ACTU, while supporting the announcement of increased spending for vocational education and training in 2005, felt that it was an 'inefficient use' to use the allocation on "the establishment of specialised technical colleges – does not optimise the use of the funding. We are also concerned that there is no allocation of funding to other aspects of need in the VET system – such as growth funding to TAFEs." The ACTU were also deeply critical of the Australian Workplace Agreement (AWA) strategy adopted to employ staff, saying that, contrary to the Government's assertion that they (AWAs) meant 'Higher pay and better conditions' the opposite was often the case. Up to that time, despite the fact that students could not graduate until they had completed a course. In 2007, the students had barely started courses (Australian Council of Trade Unions, 2005).

The federal member for Calwell, Ms Vamvakinou, argued in 2007 against allocating more funds for a further four technical colleges, saying that while the government had admitted there was a skills shortage of 200,000 skilled workers, the Australian Technical College programme would only deliver 10,000 new graduates by 2010. The government had reduced funding to TAFE by 26% in the ten years from 1997, with corresponding reductions in government funding per student. Because of this, TAFE had found it necessary to turn away 325,000 potential students over that period. (House of Representatives Australia, 2007)

In November 2009, Julia Gillard, the then Education Minister, was asked for a status update on the Australian Technical Colleges, since most of them were unable to function without continued government funding, which was withdrawn under Labor. She revealed that most of the colleges had been absorbed into the State Government school system and the Catholic and Anglican Education system. Five colleges would remain as independent schools. She was adamant that no further funding would be allocated to ATCs after 31 December 2009.

2.5.1 Student Enrolments and Completion Rates

The figures shown in Table 2.2 indicate that the total number of Australian School-Based Apprenticeships (ASBAs) appears to be less than 5000. It appeared that only 50% of enrolled students actually graduated with an ASBA. It is patently obvious that the government estimate of 10,000 graduates by 2010, re-iterated by Ms Vamvakinou in 2007, was a long way short of being met. The other point is that there were apparently 28 colleges altogether in 2007, yet Ms Gillard only listed 24.

Table 2.2

ATC Student Enrolments and ASbAs (Australian School-Based Apprenticeships)

Year	Students enrolled	ASbAs	Comment
2007	1597	969	As at census 31 October 2007
2008	2762	1721	As at census 31 October 2008
2009	3639	Not known	As at census 31 March 2009

Source: (House of Representatives Australia, 2009)

(Sourced from the Federal Register of Legislation at 20 March 2015)

With regard to the completion rate at Australian Technical Colleges, it appeared that 50% was quite poor, but compared with completion rates at TAFE colleges, it is quite the opposite. The TAFE NSW completion rate for instance, at AQF Certificate III and above was about 33.6% of enrolments in 2009, and the AQF Diploma and above was 6.8% of enrolments (New South Wales Department of Technical and Further Education, 2013). On that basis, it appears that it was simply that the Australian Technical Colleges were unable to attract a sufficient number of enrolees, and this could be due to a number of factors, including negative advertising from competitive colleges (like TAFE), or simply not enough positive advertising by the various colleges or by the government on their behalf. It is a fact that many employers regard university graduates as being less manually dextrous than their Technical College counterparts. The difference between a university education and that of a technical college is quite succinctly summed up by the UNESCO definition in 1997:

> "… general (University) education which is mainly designed to lead participants to a deeper understanding of a subject or group of subjects and

> ‘vocational or technical education’ which is mainly designed to lead participants to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation or trade or class of occupations or trades.”

Carnegie (2000) has a more succinct definition of VET:

> “A distinguishing feature of VET is the specific learning/assessment focus, which is competency based. This approach is concerned with training and assessment to meet industry standards rather than with an individual’s achievement relative to that of others in a group. It emphasises what a person can do, not just what they know.” (Carnegie, 2000, p. 18)

It is interesting to note that Mr. Tony Abbott, in opposition in 2010, reported by the Weekend Australian on August 13, stated that a “Coalition government would re-introduce funding for at least 30 Australian Technical Colleges”. It is unfortunate that by the time he assumed office in 2013 as leader of the elected Liberal-Country Party government, nearly every one of the Australian Technical colleges had been absorbed or closed.

2.6 Related Research Studies

The history of technical education has been well documented. Arguably the most helpful is the thesis by Murray-Smith (1966) which includes the period from establishment of the colony in NSW. The works by Baragwanath (2011), Beddoe (2003), Royle (1971) and Freyne (2010) concerning early ‘technical colleges’ such as Mechanics Institutes and Working Men’s colleges are very comprehensive. Goozee (2001) also included early history of technical education with contemporary work concerning the Technical and Further Education (TAFE) system n Australia.

2.7 Chapter Summary

This chapter has covered the early history of the colony of New South Wales from the landing in Botany Bay by Governor Philip. It detailed the way in which the colony survived despite not having the appropriate tools for a farming community and how convicts that were skilled in these areas would gain more respect and eventual status. The rise of Mechanics Institutes that had been established in England

at the time was a necessary part of training for manual skills in the settlement. The chapter explains how the Mechanics Institutes later grew to become universities in the main, while Working Men's' Colleges, that had sprung from some of the Mechanics Institutes later became Technical colleges. The increasing control of technical education by the State governments is discussed with a consequent commitment to funding that rose steadily throughout the twentieth century.

The chapter explained how the various governmental reports influenced the path of technical education and in particular how the Kangan Committee established ACOTAFE. From these deliberations and recommendations, the TAFE network was established throughout Australia, which has been the major contributor to technical education.

The history of funding was discussed, from the private funding of Mechanics Institutes at the early stages of the colony of NSW, to the later State and Commonwealth government funding throughout the twentieth century to the present day. Included in this section is the National formation of the Australian Technical Colleges and the funding upon which they depended for their survival that was subsequently withdrawn.

CHAPTER 3

Research Methodology

3.1 Overview of the chapter

This chapter provides the research paradigm informing the study (section 3.2) followed by the research design (section 3.3), a discussion of the historical research used in the study (section 3.4), the research into the contemporary interviews conducted with former staff and students (section 3.5), data analysis (section 3.6) and a chapter summary (section 3.7).

The research design section includes a discussion of qualitative data collection and case study upon which the design is based and the interview section includes a discussion of interviewee choice, protocols, interview questions, reliability and validity, and interview procedure.

3.2 Research Paradigm

A paradigm can be viewed as "a set of basic beliefs (or metaphysics) that deals with ultimates or first principles. It represents a worldview that defines, for its holder, the nature of the "world,""(Guba & Lincoln, 1994, p. 107) – a way of approaching the research that frames the whole study. A more explicit definition is espoused by Bryman (1992) in which he refers to a research paradigm as being similar to a group of beliefs from which scientists in a particular discipline are able to deduce the way in which research should be carried out and how the results should be interpreted (p.4).

It is clear that the overarching paradigm for this research is interpretivist, because the study seeks "the localised meaning of human experience" (Treagust, Won, & Duit, 2014). A 'competing paradigm' – positivism – is associated with scientific theories, and to understand and research social and psychological phenomena positivists apply scientific methodology. However, the study does not require any scientific method to answer any of the research questions formulated, but seeks to *interpret* historical narrative data and to *interpret* contemporary interview data, the study definitely falls under the over-arching paradigm: 'Interpretivist'.

A certain amount of criticism has been aimed at the interpretivist paradigm, focussing on the subjective nature of the approach and the assumed partiality of the researcher. Alshenqeeti (2014) agrees that the main area of concern in this study is in the area of research associated with interviews (p. 40). Hammersley (2012) is of a similar opinion, emphasising that the interpretivist paradigm leads to a type of partnership between the researcher and the researched (p. 23). Treagust et al. (2014) may disagree with this argument, suggesting that researchers need to spend an extended period of time with interview participants, to build rapport and empathy in order to gain a firmer understanding of the situation (p. 7). To counter the problems that may have arisen from possible over-familiarity with participants, the researcher has used a set of open-ended questions, some of which needed to be clarified during the interview process, to minimise the risk of departing from the subject, as would often be the case when the interviewee is known to the researcher. The interview was 'semi-structured', in that although questions were formulated beforehand, the interview protocol allowed flexibility so that the interviewees were able to express views beyond the body of the question. Trustworthiness and validity were maximised by collecting results from participants with very different experiences of the College. Validity and trustworthiness in the interview process will be discussed in a later section.

3.3 Research Design – the Case Study

The research design for this study is a descriptive and interpretive case study that is analysed through qualitative methods. According to Yin (2002) a case study design should be considered when the focus of the study is to answer "how" and "why" questions (p. 1). A case study is defined by Creswell (2008) as being an in-depth exploration of a bounded system (P. 476). The 'case' to which this study refers is that of the demise of the Australian Technical College, Perth South, bounded by the time constraints of 2005 to 2013. Stake (1995) refers to this type of research as an 'intrinsic' case study as the researcher's primary interest is in understanding a specific case. Punch (2011) considers that case studies have four characteristics and each one of these is contained within the present study:

It is a ‘bounded’ system – it has boundaries. The temporal boundaries in the present study are the time frame (from 2005 to 2013) and the spacial boundary concerns the single Technical College in South Perth.

It is a case concerning something, and this needs to have a clear focus. The concern is with the withdrawal of funding for the college in South Perth and the foci are the historical reasons for Technical College formation and funding historically and the contemporary view of why the college in South Perth was formed and later had its government funding withdrawn.

Since the focus is on the case as a whole unit, it is ‘holistic’ – “there is an explicit attempt to preserve the wholeness of the case” (p. 145).

Multiple sources of data collection methods may be used including “anthropological field methods such as interviews and narrative reports” (p. 145).

Face-to-face interviews using questionnaires to evaluate participants’ levels of concern regarding the formation and demise of the Australian Technical College, Perth South and historical accounts were used as data collection methods. Some purely narrative research is carried out in order to gain a contemporary answer to the question concerning the demise of the Australian Technical College, Perth South. On the other hand, most of the study, as stated, concerns historical research dating back to the formation of the colony of NSW, and even before. Both the narrative and historical research fall under the umbrella of the interpretive paradigm.

The people’s stories are important because they give the researcher an insight into the mindset of the participants for this particular college. It has already been stated that the college program was unique, in that it allowed students who did not ‘fit’ with the school system to realise their ‘full potential’. By integrating ‘normal’ curriculum work with periods in the various workshops, students could remain engaged for longer periods.

It would be simplistic and incorrect to intimate that the student or other interviewees would ‘say what the researcher wanted to hear’, because the interview questions were framed in such a way that they revealed the up-sides and down-sides of the argument. The interview questions, although framed beforehand, were not ‘highly structured’ due to the interview protocol allowing flexibility by the interviewer. The

“semi structured’ formats ‘assume that individual respondents define the world in unique ways”, so the questions tended to be more ‘open-ended’ and less structured (Merriam, 2009, p. 90). Since opinions and accounts gathered through interviews was used as data in this research, the data did not rely entirely on facts, but also on opinions. The interviews conducted with previous staff members of the Australian Trades College is narrative, and yields a contemporary view of technical education which sometimes contrasts with the historical background, particularly in the area of funding.

The final area of study focusses on the actual reasons for the formation and demise of the Trades College in question, using the background of the historical and political research detailed above. The study uses a purely qualitative approach, with data generated from interviews with former staff and students of the Trades College. The design of this questionnaire was to ask open-ended questions over a broad area, in order that the same questions could be asked of individuals from very different areas of employment or engagement with the ATC.

3.3.1 Qualitative Data Collection

There are two areas of research in this study, namely historical data collection and qualitative data gained from interviews with former staff and students of the Australian Trades College (formerly the Australian Technical College), Perth South.

The first area involves the history of technical Colleges in Australia and in other parts of the world and in particular, the funding of technical education by successive government and non-government sources was studied. Australia and the United States probably have a different approach to Technical Colleges due to their colonisation fairly late compared with other European history. In some cases, historical research may be quantitative. Although historical research tends to be mixed, it is usually placed under the heading of qualitative research because “the data tend to be qualitative and the approach to the use of evidence and the forming of arguments is closer to qualitative research than to quantitative research” (Johnson & Christensen, 2004, p. 27). The second area of qualitative data collection concerns that from the interviews conducted with former staff and students, and these data will be discussed in the following section.

Some studies involving interviews use the narrative approach to confirm those data collected by statistical methods. In the case of this study, however, the information generated from interviews will be used to triangulate data from historical and contemporary sources.

3.4 Historical Research

An important area of research is historical, because the study is intended to reach an understanding of how the Australian Technical College, Perth South was formed initially. In attempting to understand the meaning behind the need for technical colleges or the requirement of civilised or civilising nations to put a strong emphasis on education, a story must be told about the history of technical college education in Australia and before. Therefore, the methodology is qualitative - a narrative tale of personalities, decisions and manipulations that weave a tortuous path to the formation of the Australian Technical College, Perth South and its unique program.

The study seeks to determine the 'why' of the rise and demise of a particular technical college and its program in Perth Western Australia. At first glance, one would point to contemporary reasons, such as mismanagement; failure of the program resulting in poor attendance or inability to fulfil its Charter. On this basis, a straightforward qualitative research methodology involving interviews, triangulation of themes and possibly some background research would be required. Justification for this approach follows under the heading: "Reliability and Validity in Qualitative Research". (Section 4.2.1.5). However, the demise of the Australian Trades College, Perth South, was in fact only a very small part of the problem concerning over-arching government decisions regarding technical education in Australia. In order to fully examine the problem and to advise on the possibility of a bi-partisan model that would carry Technical training into the future, it was essential to research the historical reasons behind the failure. The methodology was still qualitative, but the interviews with past staff of the college were only one part of the whole research process, albeit an important part. While the former staff could provide contemporary answers to the question of why the College was allowed to close, historical research was a necessary and far-reaching area of study, since history laid the foundations for the establishment and later demise of the College. History does provide us with a thorough understanding about the present situation. Zinn (1971, p. 275) recognised

that “the actual past has affected the present situation in which we find ourselves”. The study of history may help to avoid maintaining and repeating prior mistakes and difficulties.

Anderson (2005) defines historical research as “past-oriented research which seeks to illuminate a question of current interest by an intensive study of material that already exists”(p. 101). He argues that in historical research, the literature tends to be far broader in its scope than in other forms of research, and that it can include in its primary sources all forms of written communication, such as letters, legal documents and minutes. Secondary sources of data may include journals and books. Johnson and Christensen (2004) also indicate a wide variety of data sources, including oral histories, relics, and artefacts that may shed light on past events (p. 397). Conversely Storey (2004, p. 55) believes that in historical research one should reflect upon “the arguments of (your) primary sources and secondary works then engage them constructively and responsibly”. However, although published educational and historical literature and government educational policy documents are one source of data in this thesis, interviews with key personnel are considered an important source, as previously stated. Sollorz (2013) agrees with this decision, his reasoning being that interview data is one aspect of historical research which involves the researcher discussing the reasons for the state of affairs at the time, or for current problems and difficulties with chosen interviewees directly involved in those affairs (p. 14). Marius (2010) agrees with Sollorz on this point considering that the historical researcher will therefore use evidence gathered from the recollections of the people that were present at the time.

It is clear that historians are interested in knowing what happened in the past. Marius (2010) suggests that they also want to know why those happenings were significant, and to investigate the on-going interest in discussing them (p. 2), while Storey (2004) states that historians make conclusions through interpreting facts – it is not sufficient to simply collect details and information about the occurrence (p. 46).

Despite the rapid spread of technology and free availability of historical information, Tosh (2010, p. 28) claims that for the vast majority of historians, “research has been confined to libraries and archives”. There is a belief that “Written sources are usually

precise as regards time, place and authorship, and they reveal the thoughts and actions of individual men and women as no other source can do."

Lune and Berg (2017, p. 158) refer to history as being an "interpretive account of some past event or series of events", and Johnson and Christensen (2004, p. 392) agree that historical research is interpretive, saying its presentation is "Much more than the mere retelling of past facts, it is instead a flowing, fluid, dynamic account of past events that attempts to recapture the complex nuances, individual personalities and ideas that influenced the events being investigated. They also define historical research as: "The process of systematically examining past events or combinations of events to arrive at an account of what happened in the past" (p. 392).

3.4.1 Documents as Historical Data

Qualitative research involves the gathering of many types of data. Lincoln refers to a distinction between documents and records on the basis of whether the text was prepared to attest to some formal transaction. Records, which are formal transactions therefore would include such items as bank statements, building contracts and driving licences, whereas documents, which are generally prepared for personal rather than official reasons could include diaries, memos, letters and others. Contracts, legal documents, official government gazetted statements and similar are formal transactions, and would be termed 'records' (Lincoln, 1985, p. 393).

In the present study, historical data are collected from records of events mainly, but there are many government documents, transcripts from Hansard and transcripts of various education bills. Tosh (2010) referred to historical documents as (mostly) 'primary' data, although a document could also be 'secondary' if the writer was not actually present at the event. He suggests that historians prefer primary sources, but sometimes these are simply not available (p. 91) .

In this study, the 'raw' or primary data included those gathered from government sources such as Bills, Acts of Parliament and Hansard extracts including the report form the Committee on Technical Education (James, 1891), the International Congress on Technical Education (1897), the States Grants Education Bill (1973) and the Fink (1901), Walker (1943), Murray 1957), Martin 1964), Karmel 1973) and Kangan (1974) reports. Included in primary data are early historical literature

covering first-hand observations by Watkin-Tench (1793), Thomas Bigge (1822), Sir William Westbrooke-Burton (1840) and Henry Brand (1857). Also the history of the Australian Trades colleges occurred in only the last decade, so any data gathered is primary, not secondary.

Secondary data sources include Plummer (1905), Coghlan (1918), Hughes, (1961), Murray-Smith (1966), Royle (1971) and Goozee (2001). These data included government documents from the early history of European settlement in Australia, the history of technical colleges in Australia, the history of Mechanics Institutes, the history of Working Men's colleges, the history of technical education in the twentieth century, the history of contemporary technical education, the research into relevant government reports and committees and the history of funding from 1850 through to the present day.

When examining political references the data may not be clear and valid even when Hansard, which merely keeps an accurate record of dialog in Government, is used as a source of information. Villaverde, Helyar and Kinchloe (2006) are concerned that there is a "web of complexity" in which "all historical data is ensnared, whether we like it or not" and that "Historical narratives assume particular epistemological, ontological, political, ad infinitum positions—whether the historian is conscious of them or not" (p. 18).

3.5 Interview research

Marius and Page (2010) noted that interviews were important in historical research and likened them to a chemistry experiment in which it was possible to view causality and connections by a number of repetitions. Past events could not be reproduced in the same way (p. 4).

The use of interviews in this study comes under the heading of qualitative research and relies on contemporary data gathered by interviews with prior staff of the college. In line with the interpretive paradigm, collected qualitative historical and narrative data is interpreted to arrive at various conclusions and recommendations for future directions regarding technical education in Australia. There is a need to make sense and arrive at commonalities of the interviewees' perspectives concerning the particular case of the demise of the Australian Trades College Perth South.

3.5.1 The Researcher as Interviewer

As mentioned earlier, there is a danger when the researcher is also the interviewer in questions of validity and reliability (trustworthiness and dependability). The interviewee may not want to make a perceived negative argument if the interviewer is well known to them.

By using a 'semi-structured' process – one in which 'open, direct, verbal questions are used to elicit detailed narratives and stories' (DiCicco-Bloom & Crabtree, 2006) – the researcher was able to obtain arguments that supported much of the historical data. Although the researcher was well known to the interviewees, responses to the set open-ended questions were not deemed to be compromised to any degree which would affect the research data. In fact, it could be argued that the opposite was true. For instance, social cues and facial expression may be very helpful in face to face interviews. "Social cues, such as voice, intonation, body language etc. of the interviewee can give the interviewer a lot of extra information that can be added to the verbal answer of the interviewee on a question." (Opdenakker, 2006, p. Para 2.1)

3.5.2 Choice of Interviewees

Choice of participants for interview is probably the most important task in qualitative research. In quantitative research participants can be chosen at random to improve the generalisability of the result, but in qualitative research, subject selection is purposeful since participants may be selected who best can inform the research questions and enhance understanding of the phenomenon under study (Creswell, 2008, p. 214).

The logistics of contacting individuals resulted in only a small number of former staff and students of the Australian Technical College, Perth South, being interviewed. In the case of the existing study, a broad perspective on the running and later closure of the Australian Technical College was required, so a smaller sample would suffice. Three senior administrators of the college, two senior lecturers and two students were called upon, as described in section 1.5. This type of sampling is what Patton (1990) identifies as 'purposeful sampling', since the researcher is interested to learn about an "information-rich case for study in depth" (p. 169). Patton defines an information-rich case as being "one from which one can learn a

great deal about issues of central importance to the purpose of the research" (p. 169). The small number of participants is fairly typical in qualitative research, since a large number can "become unwieldy and result in superficial perspectives" (Creswell, 2008, p. 217).

Several factors also dictated the number of interviewees chosen. Mr Harry Wolcott, a pioneering qualitative researcher has suggested that one should interview enough participants until one obtains different answers. (Baker & Edwards, 2012, p. 3) The factors in the present study – access to relevant interviewees, time constraints, transcription time – influenced the number of participants chosen.

In accordance with 'purposeful sampling', the participants were carefully chosen for their first-hand knowledge of the problem (in the case of senior staff) and for the 'grass roots' perspective (in the case of the students and senior lecturers). Because of the semi-structured protocol, the sample size and make-up was consistent with the type of research involved.

All the interviewees were asked 10 key questions which are discussed in section 3.5.4. In addition to these questions, during the interviews the senior administrators were able to provide a great deal of insight into the underlying reasons for the reduction in funding and government support over time, and the reasons why last-minute rescue plans for the college failed.

Although the senior lecturers could provide little information regarding funding or government support they provided information concerning the actual education program conducted by the college, and details of student numbers together with graduation success rate. The success of the program from a student's perspective was considered very useful, because the success or otherwise of the program was partly dependent upon their word-of-mouth advertising and comparison with their experience at school.

The researcher decided to use the same set of questions for all participants mainly to simplify later coding, but also because all interviewees would approach the questions from their own particular experience and perspective, which the researcher considered would be a more useful response.

3.5.3 Interview Protocols

Castillo-Montoya (2016), in recognising the importance of interview protocols, lists four different phases which "include ensuring interview questions align with the study's research questions, organizing an interview protocol to create an inquiry-based conversation, having the protocol reviewed by others, and piloting it" (p. 811). The present study adheres to this process and also uses a semi-structured protocol as described in section 4.2.1.

Creswell (2008) indicates the interview protocol should contain detailed instructions for the interview process, including enough space to take notes, and question prompts. During the interview process for this study, this level of detail was not considered necessary. A recording of each interview was taken electronically and later fully transcribed. In this way, verbal cues and intonations could be included in the data gathering process.

3.5.4 Interview Questions

To delve into contemporary reasons why the program at the Australian Trades College (formerly Australian Technical College), Perth South, was terminated, ten questions were asked of the chosen interviewees. The questions were designed to address a number of important issues that would reflect upon the success or otherwise of the Technical College program as follows:

1. *Professionalism* – any unprofessional approach to teaching or other aspects of the teaching program would have an adverse effect on such areas as funding and student numbers.
2. *Teaching Standard* – as above, the teaching standard would need to be perceived as high to attract the required student numbers to fulfil the obligations of the agreement with the Federal Government in 2005.
3. *Confidence in the Program* – the teaching program, unique to the Australian Trades College, Perth South, needed to inspire confidence in the community and industry that the college could deliver highly skilled and educated apprentices.
4. *Support - Funding, Administration (External and Internal)* – although the colleges were originally established under a funding agreement with the

Federal Government, there was insufficient funding for the actual buildings, so external funding had to be sought and supported. Boards of Governors had to be set up to administer the colleges selecting members from local industry with an interest in this particular model of technical education.

5. *Relevance of Program* – to reinforce the Government decision to set up the colleges, the teaching program had to be relevant to the requirement for apprentices in the established Skills Shortage.
6. *Perceived Success of Program* – this hinged on the number of apprentices produced by the college in the agreed time frame, and their educational standard expected by industry.
7. *Strengths of Program* – In the competitive technical training environment, a strong educational and trade program was needed.
8. *Weaknesses of Program* – If there was any established or perceived weakness in the program, it could adversely affect the decision by the Government to continue funding.
9. *Impressions of why the program failed* – It was expected that the 'impressions' by students would not be an informed set of reasons, but that teachers and administration staff would have a far better understanding of these factors.
10. *Comparison of the Program with those in other countries (for example. Europe, Asia, USA)* – Once again, not very many of the interviewees would have an understanding of overseas programs. The reason for this protocol was that while the program put together by the Australian Technical College, Perth South, was thought to be unique in Australia, it could be that other countries had similar teaching programs for apprentices.

The ten open-ended questions were formulated that were considered appropriate in giving a contemporary and very personal view of the various aspects of teaching and learning at the College. To reduce bias, the same ten questions were asked of each participant, although it was not expected that some interviewees would possess the relevant knowledge to give an informed opinion regarding some of the questions. In these cases, however their input was considered important enough to include.

The ten key questions derived from the preceding issues were:

1. What was your feeling concerning the professionalsim of the administration and teaching staff?
2. What was your feeling concerning the teaching standard?
3. What was your level of confidence in the teaching program?
4. How did you consider the support of the college program – funding, administration, both external and internal?
5. How relevant did you think this technical college program was in Western Australia?
6. On a scale of 1-5, 5 being the highest, how successful do you believe the program had been on the basis of providing a source of quality apprentices?
7. What do you consider to be the main strengths of the program?
8. What weaknesses have you found, if any, in the program?
9. What were your impressions of why the program failed?
10. What were your feelings concerning how this program compared with that in other countries?

Question 6 was framed on a 5-point 'likert' scale as a convenient way in which to elicit a response. The 'likert' scale was named after Rensis Likert, an American social scientist in 1932.

3.5.5 Reliability and Validity Concerns

In an attempt by Guba and Lincoln (1994) to address the difference between quantitative empirical results and qualitative findings and deductions, they proposed supplanting the terms reliability, internal validity, external validity and objectivity by transferability, dependability, credibility and confirmability (p 246). Noble and Smith (2015), try to simplify the debate by defining 'reliability' in qualitative research as being "The consistency of the analytical procedures, including accounting for personal and research method biases that may have influenced the findings" and 'validity' as "The precision in which the findings accurately reflect the data". Among other terms used in addition to these regarding the credibility of qualitative research is 'generalisability' which is "the transferability of the findings to other settings and applicability in other contexts" (p. 34) .

Researchers often distinguish 'internal validity' from 'external validity'. Internal validity, according to Alshenqeeti (2014), refers to the degree with which we are

actually measuring what we are supposed to measure, and answers the question: Are the differences found related to the measurement? External validity refers to generalisability of the findings (p.43) .

Alshenqeeti also suggested there were a number of reasons why the trustworthiness of findings from interviews in qualitative research is always open to question:

1. The attitude of the interviewer, including his or her personal views;
2. The possibility that the interviewer will judge the interviewee on their own (interviewee's) merits;
3. The pre-conceived notions of the interviewer could dictate the type of answers the interviewer expected to hear;
4. The interviewee may misunderstand the question being asked.

These considerations were all taken into account and addressed by the researcher in conducting the interviews, as stated in section 4.3.1.1.

3.5.6 Interview Procedure

With one-on-one open ended and semi-structured interviews, an audio recording is the preferred method of note-taking. According to Creswell, "one-on-one interviews are ideal for interviewing participants who are not hesitant to speak, are articulate, and who can share ideas comfortably." (Creswell, 2008, p. 226)

Each of the participants was contacted beforehand, and arrangement were made to hold an interview at a venue that was convenient to the interviewee. While it would have been preferable to arrange for the interview to take place in a very quiet environment, because of the time constraints of some of the participants, the venue was occasionally not ideal. Background noise often made the recordings of the interviews difficult to articulate. A number of researchers including Burns (1997), Lune and Berg (2017) and Seidman (1990) considered it advisable to hold a 'pilot interview' in order to become familiar with the interview procedure, this was not possible for the reasons already mentioned. (Time constraints on the interviewee).

The participants were each given the same set of ten written open-ended questions, as already discussed. Despite the fact that the participants had very different experience and backgrounds, the questions asked were designed to gain information

of a general nature in most cases. The different experiences in the college of each participant would engender a deeper understanding of any problems associated with the running of the college. There was no time constraint for the interview, apart from that set due to the personal occupation of the interviewee at the time.

Although the chosen method for the interview was semi-structured, participants often preferred to stray from the prescribed set of questions to give a narrative that covered many aspects of the problem. Since the researcher also had personal experience of the subject, this 'unstructured' part of the interview process served to enrich the overall narrative. This format found favour with Allen (2004) who stated that "It was the intention in interviews to elicit a response from particular individuals about particular phenomena, incidents or views that were both common and different to them" (p. 21) .

Johnson and Christensen (2004) were of the opinion that an informal conversational interview enabled the interviewer to follow al leads that were likely to emerge in the discussion (p. 183). A great deal of information was gathered during the semi-structured interview procedure by allowing participants to talk freely about their experiences but the interviewer was still able to guide the participant to answer the set questions.

While the interview participants were deliberately chosen for the background knowledge of the college, its administration and support, it was felt that the responses of students had to be taken into account, as they were the whole reason for the existence of the college. It was not expected that the students would be able to answer many of the questions with any authority, but their responses would serve to enrich the narrative and reinforce major themes gathered form the professional participants.

3.6 Data Analysis

3.6.1 Historical Data Analysis

The background to the study was most important. Questions concerning the formation of the college and the withdrawal of funding could only be answered fully by examining external factors. Historical records of government decisions concerning technical colleges and education needed to be sought and used as data for

the study. The University of Queensland library was very comprehensive regarding literature over the period in question, as was the Curtin University library and the National library in Canberra. Online searches revealed the Internet Archive resource, which was very helpful, and other websites from which academic research books could be freely rented. Hansard references were used, including first and second readings of relevant bills.

Handlin (1979) suggests that every one of the functions of history are ultimately reliant on the veracity of the literature (p. 408). In this study the suggestion of veracity by Handlin became a central tenet of the research into the literature. This point was emphasized by Atkinson and Coffey (2011). They made the suggestion that if studies did not include an examination of written documents, memos, letters and other documented works would not "always do justice to the settings they purport to describe, and it is necessary to redress the balance if only for the sake of completeness and fidelity to the settings of social research" (Atkinson & Coffey, 2011, p. 58). Prior emphasises the importance of documents in research, saying that they assume a dual role: the first as a "receptacle (of instructions, commands, wishes, reports, etc.)", and second as "an agent in its own right" (Prior, 2003, pp. 3-4). Also relevant to the study is the assertion by McCulloch & Richardson (2000), that "policy, administration and institutions" has been an emphasis for historical research, since this study uses primary sources from policy reports and libraries (p. 117). It can be assumed that the authors include the use of reports in Hansard in this description, which is also suggested by Seldon, referring to them as "Government documents by political parties" (Seldon, 1988, p. 88).

Carr wrote that "The historian, by expanding and deepening his research, constantly accumulates more and more answers to the question, 'Why?'" (Carr & Davies, 1987, p. 98), in recognition of the fact that historical research represents a continuum of smaller searches from many sources. This is also emphasised by Johnson and Christensen, who regard historical research not just as a collection of facts, but as an interpretation of them (Johnson & Christensen, 2004, p. 622).

Historical data were examined and included in the literature review (Chapter 2). These data were summarised in Appendix 4 and used to assign a 'first level code' or theme in accordance with the research questions to arrive at the historical results in

Chapter 4. While a number of frameworks could have been used for organising and interpreting the data, the researcher decided the most appropriate method was to organise the data by concept as suggested by Anderson (1998, p 105), since "…the latter implies identifying key issues or themes then organizing and interpreting the data on that basis". While thematic coding is commonly used in analysis of interview data, it does lend itself to the analysis of historical data in the present study. Gibbs (2007) refers to "Descriptive codes", "Categories" and "Analytic Codes" in a logical progression towards developing thematic coding (P. 58). Gibbs also states that thematic coding is one of the most common forms of qualitative data analysis.

In researching historical data from the time that the colony was established in Australia in 1788, the researcher was able to draw parallels with contemporary findings which include 'skills shortage', 'funding requirements', 'attitude', 'requirement for technical education', 'government control', 'funding withdrawal', 'lack of foresight' and references to 'working class'.

The themes identified from the historical data were used to focus on the 'Anchor Codes' in the following research questions:

> What were the underlying reasons for the new model of Technical Colleges to be formed in 2005? **Anchor code 1: Reasons for Formation and Continuation**
>
> What were the reasons behind the withdrawal of funds for Technical Colleges in 2009 leading to the demise of some colleges and the absorption of others into the TAFE or school system? **Anchor code 2: Reasons for Demise**
>
> Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges? (This question addresses only the demise of the college and only data concerning a negative regard would be appropriate). **Anchor code 2: Reasons for Demise**

These three research questions call upon comparisons between historical data with contemporary findings to arrive at conclusions concerning the formation and closure of the 24 Technical colleges in Australia. The remaining research question not

included here concerned the contemporary understanding of internal factors including staff, program and administration problems or benefits that would have a bearing on the closure of the college or otherwise. This question is covered in section 3.6.2: Interview data analysis.

3.6.2 Interview data analysis

In order to begin analysing the interview data, it was necessary to investigate the subject of 'coding'. Boeije (2010) refers to coding as "the first step required to move past concrete statements in the data in order to make analytic interpretations. It means naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data" (p. 95)

As a first step in researching this intrinsic case, the statements in an interview need to be analysed and labelled with a code that identifies that statement. These labels, or codes, build a picture of the thoughts, experience or feelings of the interviewee. When a number of codes has accumulated in this way, the researcher begins to develop a theme.

Initially at least, 'manual coding' using Microsoft Word was used to establish themes, but the use of QSR NVivo appeared to be a more comprehensive aid to the case study analysis. NVivo software allows the user to assign 'initial codes' to the data. The initial codes are based upon the research questions – not the questions asked in the interview. In manual coding the initial codes can be termed 'Anchor Codes'.

The interviews were transcribed from the audio recordings and these codes were ascribed to the research questions:

> What were the underlying reasons for the new model of Technical Colleges to be formed in 2005? **Anchor code 1: Reasons for Formation and Continuation**
>
> What were the reasons behind the withdrawal of funds for Technical Colleges in 2009 leading to the demise of some colleges and the absorption of others into the TAFE or school system? **Anchor code 2: Reasons for Demise**

Did the perceptions of former staff, students and administrators towards the now extinct model of Technical colleges formed by the Howard Government in 2005 have any bearing on the demise of the college? (The researcher realised that this research question could be addressed using either positive or negative perceptions, therefore two opposing Anchor codes could be applied). **Anchor Code 1: Reasons for Formation and Continuation (Positive perceptions); Anchor code 2: Reasons for Demise (Negative perceptions).**

Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges? (This question addresses only the demise of the college and only data concerning a negative regard would be appropriate). **Anchor code 2: Reasons for Demise**
(Adu, 2017) and (Saldana, 2009)

The concept of Anchor Codes was very helpful in pre-establishing themes for the categorised codes.

It was clear from the interview transcripts that there were really three 'Anchor Codes' that could have been used: "Reason for establishment"; "Reason for continuation" and "Reason for Demise". However, the research questions were framed in such a way for the study to determine only two things: The reason for establishment and the reason for the demise of the college(s). Therefore, the researcher decided to combine the 'Anchor Codes' and to use the two mentioned. From these codes, a focus was established for the sub-codes found in the interview transcripts. Saldana refers to this as 'Structural coding' framed around research questions, with following coding designed to find answers rather than questions (Saldana, 2009, p. 51).

The transcripts of the interviews were examined to identify phrases that gave insights to the research questions and in particular, the 'Anchor codes' assigned to the questions. As an example, as quote from one of the interviews was: "The Senate, the then Opposition in the Parliament was saying these exact words: "When we're in Government, we'll shut them down!"" (Interview with former CEO). This statement was highlighted as "Reason for demise". Paragraphs and phrases were highlighted in

a similar way, sorting them into one of the two anchor codes. Each paragraph, statement or phrase was shortened to produce a manageable descriptor that encapsulated the essence of the paragraph. This initial coding together with the research questions, their anchor codes and shortened descriptor codes is shown in Appendix 2.

The coding thus far had been performed manually, using Microsoft Word, since QSR NVivo software did not appear to have any facility for using 'Anchor Codes' with the same facility. It was then decided to try the use of NVivo software for analysing the next stage of 'first cycle coding', using 'In Vivo' coding. In vivo coding can be described as the practice of assigning a label to a section of the interview data using a word or short phrase taken from that section of the data. Unfortunately, NVivo software only complicated the issue, and it was decided that the existing descriptor codes could be used to generate second cycle codes as indicated in Appendix 3, the format of which was achieved using Microsoft Word. Initial coding is often termed "open coding". It is a 'first cycle' method to "fracture or split the data into individually coded segments" (Saldana, 2009, p. 42).

Manual coding lends itself to qualitative analysis when the data are not too great. This is in agreement with Basit. Regarding comparison of manual coding with CAQDAS, he concluded that "the choice will be dependent on the size of the project, the funds and time available, and the inclination and expertise of the researcher" (Basit, 2003, p. 143). The themes developed and shown in Appendix 3 following first cycle coding were the result of analytical memos which allowed the researcher to reach a more thorough understanding of the initial codes.

Memos were kept during the whole process of coding since, as Neuman indicates: "The analytic memo is a special type of note. It is a memo or discussion of thoughts and ideas about the coding process that you write to yourself" (Neuman, 2014, p. 485). Punch also regards 'memoing' as an integral part of qualitative analysis. It is what he refers to as the "creative-speculative part of the developing analysis" (Punch, 2011, p. 202). While the importance of memoing cannot be under-estimated, it is after all a tool for the qualitative analyst to assist in arrival finally at themes.

Referring to Appendix 3, themes associated with the research questions in boxes on the right of the page have been highlighted where the initial codes have had predominance. For example ten instances were found in the interviews to which 'poor administration' was alluded, so the theme is highlighted under the relevant research question on the right of the page. These highlighted themes would have a greater importance in establishing results.

At this point, as well as during initial coding, the transcripts were re-visited to establish a firm sense of each theme, since the researcher must "both literally and metaphorically constantly compare, reorganize, and "focus" the codes into categories" (Saldana, 2009, p. 42)

The highlighted themes and other amalgamated codes found from the interviews are examined more fully in the results section of the study.

3.6.3 Summary of coding procedure

Four research questions guided the study and an 'Anchor Code' was assigned to each one. Only two Anchor Codes were necessary, "Reason for Formation and Continuation" and "Reason for Demise" because they were the main reasons for the study.

Each interviewee was asked 10 questions and the responses were used in a 'First Level' coding to generate codes. Many of the questions enabled a first level code to be assigned immediately. An example of this was:

"What was your feeling concerning the teaching standard?"
A code derived from this was: "Good teaching standard". As this was a positive aspect for the college it was regarded as a reason for continuation and so was listed under the Anchor Code: "Reason for Formation and Continuation".
Some questions elicited responses that required a new code to be assigned such as "Unique College Program". This new first level code also became a theme, because a number of interviewees responses had contributed to this positive aspect of the college program. Other questions elicited responses that produced another new code. These codes were collected under 'themes' to allow the researcher to arrive at answers to the research questions.

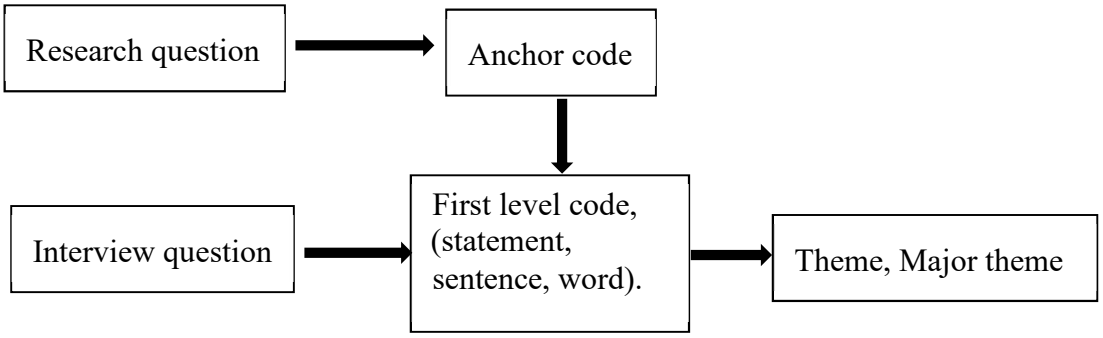


Figure 3.1 **Graphic representation of interview coding procedure**

As shown graphically in Figure 3.1 each research question was assigned one of two Anchor codes. Under each Anchor code the interview questions revealed a 'first level code'. A number of similar first level codes were combined to form a theme.

3.7 Chapter Summary

This chapter has detailed the methodology employed to conduct the qualitative research, based upon an 'Interpretive' paradigm. The research uses an intrinsic case study concerning the establishment and demise of the Australian Technical College, Perth South in two distinct area of research, one historical, the other contemporary.

The historical data relied on documents and records as well as personal accounts, memos and newspaper items of the time that dated back to the establishment of the first colony in New South Wales. The data thus found were categorised and examined for relevance to the study in order to build a background for the establishment of the eventual Australian Technical College, Perth South, and later demise in 2013.

The interview data were coded using the 'anchor code' technique in which these over-arching 'anchor' codes were assigned to the research questions. Codes and themes were condensed from the interview transcripts to arrive at major and minor themes, then theories that supported, or otherwise, the historical data findings. The validity and reliability (trustworthiness) of the interview data were discussed as well as that for qualitative data overall.

The following chapter will discuss the historical data that support the relevant research questions, including the government 'approach' and traditional attitude of the populace to technical education in Australia.

CHAPTER 4

Historical Results

4.1 Introduction

This chapter analyses the results and findings from the qualitative data concerning historical analysis in Appendix 4. Historical documents from firsthand accounts of the conditions of very early life in the fledgling colony in NSW and the accounts of many researchers into the beginnings of technical education were analysed. The analysis revealed a number of key words such as 'Skills Shortage', 'Funding' and 'Attitude' that were used to draw parallels between those early accounts and contemporary literature concerning the Australian Technical College, Perth South. The historical results of the study are discussed (section 4.2) followed by a chapter summary (section 4.3).

Four research questions guided the study:

1. What were the underlying reasons for the new model of Technical Colleges to be formed in 2005?
2. What were the reasons behind the withdrawal of funds for Technical Colleges in 2009 leading to the demise of some colleges and the absorption of others into the TAFE or school system?
3. Did the perceptions of former staff, students and administrators towards the now extinct model of Technical colleges formed by the Howard Government in 2005 have any bearing on the demise of the college?
4. Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges?

The third question is concerned with contemporary views and data was obtained from interviews which are discussed in Chapter 5.

The interview responses to the fourth research question are also discussed in Chapter 6, and summarised in section 6.7.

Apart from the third research question, this chapter concerns the qualitative analysis of historical data from documents from a number of areas. These include historical accounts from the beginnings of colonisation in NSW, (Baragwanath, 2011; Beddie, 2010; Bigge, 1822; Freyne, 2010a; James, 1891; Moyal, 2017; Phipps, 1872), government bills and reports (Bigge, 1822; Fink et al., 1901; Kangan, 1974; The State Library of Victoria, 2016a), articles and memos as well as newspaper reports of the day (Brand, 1857a; James, 1891; Phipps, 1872; Roche, 1867). These various data were taken from the time of settlement in Australia up to recent times, and concern the history of technical education that concerns the background and lead-up to the formation of the Australian Technical College in Perth, Western Australia.

4.2 Historical Data Results

4.2.1 The first research question that guides the historical data results is:

"**What were the underlying reasons for the new model of Technical Colleges to be formed in 2005**?"

Analysis of historical research was deigned to reveal any parallels between the two aspects concerning the establishment of the Australian Technical Colleges in 2005 and the establishment of technical seats of learning throughout Australia's history. The two aspects were: Perceptions of a need for technical education establishments and justification for funding of technical establishments

4.2.1.1 Perceptions of need for technical education establishments

The historical research revealed that three key issues arose, namely 1) Skills shortage, 2) Requirement for Technical Education, and 3) Education of the 'working class'.

1. Skills Shortage

Governor Phillip had particularly asked for trained men among the convicts, but found that skilled tradesmen were in very short supply when the First Fleet arrived. He had the foresight to carry over some basic agricultural and structural tools. This was corroborated by Watkin Tench in 1793 (p.2) when he said that possession of spades and wheelbarrows were more important than weapons. Murray Smith agreed with this saying that what compounded the skills shortage was the fact that men of

‘foreman level and above’ in the convict assignments were unwilling to admit their special skills even when they possessed them (Murray-Smith, 1966, p. 4).

The British class system at the time may not have allowed the realisation that probably the most important body of people in this new colony were skilled or even semi-skilled tradesmen. Moyal (2017) also made mention of the attitude in England at the time (1788) which recalls the “prevailing indifference” of the British hierarchy and that there were only “twelve carpenters in the convoy”. Virtual cessation of the apprenticeship scheme in its traditional form in England meant that ‘farmers’ and ‘tradesmen’ did not have the skills of their forbears. As transportation was being brought to an end in the 1840s, Beddie (2010) notes that employers thought more about how to import skills rather than developing them at home (p. 6).

The contemporary parallel to the lack of skilled tradesmen in the years following arrival of the First Fleet in 1788 until the gold rushes of 1851 is that during the Western Australian ‘Mining Boom’ there was a ‘skill shortage’ (confirmed by the Australian Bureau of Statistics in 2005) due to many skilled trades people being employed in the North of the State and the existing technical college system (TAFE) could not supply the required number of these people. Prime Minister John Howard regarded this phenomenon as a ‘challenge’ rather than a ‘crisis’. A similar problem in the other resource-rich State of Queensland existed, so the Liberal Government of Mr John Howard moved to establish more colleges throughout Australia. In 2006 John Howard once again acknowledged the skills shortage, but attempted to create a positive emphasis by saying that it was more a product of a strong economy in which there was an increasing demand for skilled workers. These parallels indicate that the main reason at that time for establishment of the colleges lay in the skills shortages. Historically, as Baragwaneth (2011) had noted, the necessity for skilled tradesmen and artisans has been long recognised.

2. Requirement for Technical Education

According to the 1891 report in Western Australia from the Committee on Technical Education, it was considered desirable and practical to introduce technical education into the more important Government Boys’ Schools and the High Schools in Perth. James (1891, p. 3). Freyne (2010b) considered that ‘technical skills were needed to

meet the challenges of the industrial age' (p. 1). Baragwanath (2011) reported that there would be little argument concerning the merits of introducing mechanics' institutes in every town (p.6). In praising their success and 'democratic integrity' she considered that they were 'essential venues for the first 100 years of settlement (p.7). John Woolley agreed with this view, praising the Sydney Mechanics School of Arts in 1860 particularly, recognising that the institution's membership many others that considered the importance of education besides mechanics (p. 16). Because the specialised subjects offered at Mechanics Institutes did not appeal to the trades people and it was not possible to conduct a "full program of technical courses" the tradesmen failed to show the necessary commitment and attendance numbers fell (Beddoe, 2003, p. 125). The establishment of the Working Men's College in Melbourne in 1880 by Francis Ormond heralded the beginnings of Technical or Trades education (Murray-Smith, 1966, p. 265). The huge increase in the population of the colony as a result of the gold rushes of the 1850's resulted in technical education focussing more on the study and maintenance of equipment used in the mining industry.

The foregoing is testimony to the fact that a requirement for technical education answered an essential need, as jobs in the blue collar or trade sector became more specialised and focussed on the requirements at the time. This should not be confused with the 'specialised courses' offered by the Mining Institutes that were apparently shunned by tradesmen. The knowledge required during the Golf Rush era is testimony to the specialisation required. On a contemporary level, it is just such specialisation that drove the requirement for a greater number of technical establishments in 2005.

3. Education of the 'Working Class'

The Bigge Report of 1822 documented the relatively unsuccessful attempt to integrate 'emancipated convicts' into society (p. 25). This was recognition of the requirement for what we now call tradesmen, in the construction of the colony. Convicts were the forerunners of the 'Working Class' in Australia. The Union movement grew over the decade from 1854 following the gold rush, instrumental in the formation of various schools of learning for the working classes.(The State Library of Victoria, 2016a). The Guardian in 2011 recalls that Mechanics Institutes

were often termed "poor man's universities or workingman's colleges" (Baragwanath, 2011, p. 6). Although the wealthy upper classes appeared to be apathetic to the financial requirements of technical education for the working class Murray-Smith (1966) argued that increasing democracy tended to blur the division between classes (p. 86). Mechanics Institutes were well attended as they offered the 'working class' a real future initially (Freyne, 2010a). Later they became the province of the wealthier students, causing disillusionment by the 'working classes'. In the Kangan report of 1974 there was a seemingly conscious attempt to overcome the 'working class' disadvantages of the early twentieth century, saying that technical education should be seen as an alternative and neither superior or inferior to other education streams (Kangan, 1974, p. xxiii Vol 1). This concept was reinforced by Mr. Kim Beazley in 1974 when he spoke of the abandonment of the 'rigid concept' that bound technical colleges to the requirements of industry in favour of 'lifelong education'(p. 48).

While human nature dictates general class divisions, it appears that the early British concept of the 'working C\class' that set one part of society apart from another had been blurred over time, reinforced by the sometimes grudging acceptance that in Australia at least, pay rates were often higher for the so-called 'blue collar' workers. With the sentiments underlying the Kangan Report it would seem therefore, that the concept of 'working class' was no longer an issue, since 'inequality' had been addressed very forcibly by the Kangan committee, and Gough Whitlam who abolished tertiary education fees in 1975.

4.2.1.2 Justification for funding of technical establishments

The historical research concerning the establishment of the Australian Technical Colleges in 2005 revealed that two issues namely 1) Government Control – of technical education, necessary to justify funding and 2) Government Funding – of technical education, both State and Federal.

1. Government Control:

Brand (1857b) stated that Governmental intervention into technical college education in Victoria was partly due to the opinion that educated people could direct the 'lower branches of labour' (p. 23). Due to the general realisation in 1882 that education

needed to be put under a more centralised control, the Government created a Board of Technical Education to administer the new Working Men's College, which had up to then been partially controlled by the Committee of the Sydney Mechanics School of Arts which was privately funded (Goozee, 2001). The Board of Technical Education in Sydney in 1883 took control of the management of the colleges. (Beddoe, 2003, p. 125). The Committee on Technical Education Report in 1891 recommended that technical instruction should be funded by a "one penny in the pound" by local municipalities. The 'Fink Report' (The Royal Commission on Technical Education 1899-1901) recommended a new type of secondary technical school, and a new syllabus was introduced in 1902, which placed a greater emphasis on science. (Fink et al., 1901). A report by the Education Department of Victoria (1922) said that the new department had created a single system from primary, continuation, technical and secondary schools, which they held in very high regard (p. 184). Goozee (2001) noted that by 1918, the various State and Federal Governments assumed an increasing role in the establishment of technical education facilities, which in South Australia culminated in the establishment of a system of technical education, a system of secondary schools and a university (p 16). The Australian Labor Party led by Mr John Curtin in 1942 introduced the 'Constitution Alteration (War Aims and Reconstruction) Bill' by which certain matters including vocational training would become the responsibility of the Commonwealth. Following the Walker Committee report in 1943 and this change in the Australian Constitution, The Federal Government was able to provide more financial assistance to education (Tannock, 1975, p. 4). A further change in the Australian Constitution took place in 1946 following a referendum conducted by the Labor Government led by Mr Joseph (Ben) Chifley after which the 'Constitution Alteration (Social Services) Bill' was passed giving the Commonwealth greater power over education. Since 1950 Federal Government involvement has increased in the schools sector; TAFE; Vocational and Higher education, as well as in education policies. In 1975 the Labor Government led by Mr Gough Whitlam allowed access to technical and university qualifications to a huge number of people by abolishing tertiary education fees. This was allowed under Section 96 of the Constitution.

2. Government Funding

In 1856, working hours were reduced to 8 hours a day. Francis Ormond, a member of parliament and a noted Victorian philanthropist, suggested the establishment of a technical college for working men and women and offered to match funds raised by public subscription if the college site could be provided by the Government. The workers and their Unions provided £5 for every £1 contributed by employers, enabling the college to open in 1887 (The State Library of Victoria, 2016b, p. Para 5). In 1872 the Governor of Queensland Mr George Phipps considered "that it was a very bad habit in. a young country for the people to look to the Government to supply their wants" (Phipps, 1872, p. 3). Apprentice or indentured employment and the 'payment' for training (private funding) continued in the colony from the time of the First Fleet (Murray-Smith, 1966, p. 2). From 1870 to 1885 the huge population and economic growth in Australia brought about a growing pressure for increased technical education. In 1875 government funding was allocated to education, and Goozee (2001) noted that a £2500 grant was made available for the establishment of a Working Men's College in NSW (p. 12). In 1882 the Government created a Board of Technical Education to administer the new Working Men's College in NSW and in 1891 the Committee on Technical Education Report recommended "Legislation in the direction of aids for the supply of technical instruction by empowering municipalities to levy for that purpose a rate not exceeding one penny in the pound" (James, 1891).

On 1st January 1901 the British Parliament passed legislation allowing the six Australian colonies to govern in their own right as part of the Commonwealth of Australia. Private funding of 'technical colleges' was necessary for colony survival to produce skilled tradesmen. Jane Dolan (2010) found that funds available from subscriptions to the Mechanics' Institute Libraries were insufficient to cover running costs and that the "Melbourne, Geelong and Castlemaine mechanics Institutes existed because Government funding allowed them to" (Dolan, 2010, Oct 4, p. Para 5). In 1878 £20,000 was allocated by the New South Wales parliament towards the construction of a building as part of the Mechanics' Institute in Sydney (Beddoe, 2003, p. 125) an in 1933 the Technical Education Commission in NSW established by David Drummond found that technical education was both under-valued and

under-financed and recommended that trade schools should be known as technical colleges, also that the total expenditure for technical education should be increased (Goozee, 2001, p. 17). In 1943 the Walker Committee was set up for the purpose of tackling the problem of co-ordinating the 'various activities of the Commonwealth within the education field' (Tannock, 1975, p. 4). There was a change in the Australian Constitution following this and the Federal Government was able to provide more financial assistance to education.

From 1948 the Federal government funded the Melbourne colleges – the Melbourne Printing and Graphics Trade school (1948), the Melbourne School of Textiles (1949) and the Batman Automotive trade school (1950) (Elkner, 2008), and following the Murray Committee report in 1957 the Melbourne colleges later became part of the TAFE network, which was funded by the Commonwealth from 1974 (Goozee, 2001, p. 20). In 1963 after Robert Menzies' Liberal-Country Party defeated the Labor Party led by Arthur Calwell, funding was made available for technical scholarships that was able to be used for scholarships and grants for technical colleges. A total of $116 million was paid by the Federal Government between 1965 and 1975 (Robinson, 1990). In 1990 The 'Deveson Report' - the Training Review Committee, or the Commonwealth 'Training Costs of Award Restructuring' was critical of the monopolisation of funding by TAFE and emphasised the importance of private training providers alongside TAFE providers of technical education (D. Anderson & National Centre for Vocational Education Research, 1994, p. 3). The 'Finn Report' in 1992 - the 'States Grants (Primary and Secondary Education Assistance) Act (1992)' was tabled. This recommended a considerable increase in funding for tertiary education (Australian Education Council Review Committee, 1991).

By 2000, the major funding for education was being provided by State governments, rather than by private sources. From 2011-2012 there has been a steady reduction in expenditure on the Vocational Education and Training (VET) sector, while expenditure on Higher Education had nearly doubled over the same period, according to a report by the Mitchell Institute in Melbourne (Pilcher & Tori, 2017, p. 4). It is possible that a breakdown in co-operation between the Liberal Government led by Mr John Howard and the States of Australia led to the Federal government directly funding tertiary education. In 2007 the Federal member for Calwell, Ms

Vamvakinou argued against allocating more funds for a further four technical colleges on the basis of lower than expected student numbers and a steady reduction in funding for TAFE from 1997 (House of Representatives Australia, 2007).

As can be seen by the above historical timeline, funding for technical education has been steadily increasing over the years since settlement. Originally, funding in Australia for learning institutions was supplied by private individuals and organisations. This was the case for Mining Institutes.

Vocational education and training in Australia was originally referred to as technical education, and was among the first forms of education established in the European settlements. Modelled on the British system, an apprenticeship system was introduced in the early 1800s. By the 1870s all Australian colonies had established technical education institutions to train people for broad occupations, as defined by the relevant industries. These technical institutions welcomed both youth and older workers and were the main means of post-primary education. At the time of Federation in 1901, although there were only three state high schools in Australia, all in New South Wales, there were over 30 technical colleges in that state alone (Pickersgill 2004, p.22). Justification for early funding was found in the dire need for skilled labour, and later by the dictates of local industrial conditions as well as geographic and demographic features. Later, Governments began to allocate funding for each State (by State governments) and nationally by the Federal government. The research findings were that education is constitutionally covered by the particular State government, but moneys can be allocated by the Commonwealth government. This occurred notably in 1974, by the Labor Government of Mr Gough Whitlam and in 2005 by the Liberal Government of Mr John Howard. In the latter case, it was to establish the Australian Technical colleges. There is, therefore, a direct parallel between early government funding for technical institutions and similar contemporary funding.

4.2.2 The second Research Question that guides the historical data results is:

"**What were the reasons behind the withdrawal of funds for Technical Colleges in 2009 leading to the demise of some colleges and the absorption of others into the TAFE or school system?**"

There was only one key element of historical research that is relevant to the question, and that is 'Justification for funding removal'.

4.2.2.1 Justification for funding removal

Analysis of historical research was again designed to reveal parallels between the contemporary withdrawal of funding for the Australian Technical Colleges in 2009 and historical government decisions adversely affecting similarly already established technical programs.

Precedents for the withdrawal of funding for an appropriate government program have been difficult to find, particularly in technical education. However, the Department of Immigration and Ethnic Affairs (DEIR) had a tendency to develop new programs which were required to be implemented with very short lead times, then to either change the program or withdraw funding (Goozee, 2001). She also mentioned the "the imposition of a requirement for States to fund a certain amount of places in order to gain Commonwealth funds" was common with pre-apprenticeship courses (p.38).This restriction would also have applied to the Australian Technical College system after the 24 colleges were established in 2005. In the end it was the withdrawal of funding that caused their ultimate demise.

There has been no other precedent for funding being completely removed from a system of technical colleges in a similar way to that which is the subject of this study. The natural progression of the closure of some Mechanics' Institutes resulted in the establishment of Working Men's colleges, and later universities. It could be argued that after the Liberal Government of Mr Malcolm Fraser took over from the Labor Government, fees were re-introduced for students starting from 1980 which had previously been paid by the Federal Government. The Higher Education Contribution Scheme (HECS) was introduced in 1989.

4.2.3 The fourth question that guides the historical data results is**:**

"Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges?"

With this question, 'attitude' of governments may be associated with class distinctions or simply an approach that compares technical education unfavourably with academic education. When Prime Minister Paul Keating referred to Australia as the 'Clever Country' he was referring to Academic prowess rather than manual skills. The research question is concerned with whether any adverse attitude may have influenced the decision not to continue funding for the technical college program. The historical research focussed on the government approach in Australia from the time of settlement to the present day, so early attitudes could have been strongly influenced by the British class system prevalent at the time. There was only one key element of historical research that is relevant to the question, and that is 'Approach'.

4.2.3.1 Approach

Watkin Tench (1793) recalled the indifference by the British government to the essential requirements for simple tools for the fledgling colony in Australia. Murray Smith (1966) recalled the 'ambivalent nature of the origins of technical education'. He said that at the time we were still unsure of the educational requirements for development of the country (Summary section para 5). Goozee (2001) recalled that the Murray report's main recommendations concerned universities and that technical colleges should only involve themselves with non-professional training (Goozee, 2001, p. 20). Goozee also spoke of the "conflict" between the appropriate role of technical education and other streams (p. 9) and was quite critical of the level of funding over the period form 1950-1960 for technical education, despite the growth of that sector (p. 19). The Martin report (Committee on the Future of Tertiary Education in Australia, 1964, p. 171) recognised there was "undue emphasis on university education" which was detrimental to the advancement of the abilities of young Australians in non-university technical institutions, and that the status of these institutions should be improved. The Kangan report stated that technical and further education should be planned for the "betterment and development of the individual" whose needs should be emphasised to enable weasier access to learning (Kangan, 1974, p. xxiii Vol 1). Following the Kangan enquiry, the Australian Committee on Technical and Further Education (ACOTAFE) was established, and recommended that TAFE should be regarded as an alternative stream of education with equal status

to other streams (Goozee, 2001, p. 25). In a speech by Myer Kangan in 1980, he referred to TAFE having "a poverty status that was too deeply embedded in the mentality of Commonwealth politicians and Commonwealth Public Service administrators" (Kangan, 1980, p. 13). Barbara Bee (2014) recalled that the State Liberal Government in 1988 decided to close the NSW TAFE Women's programs. She felt that this was a typical action of "Right-wing conservative governments" (p. 44).

It has already been mentioned that Murray-Smith (1966), had commented on the "ambivalent nature" of our attitude to technical education in Australia (Summary section para 5.) This very relevant and informative observation by Murray-Smith has a direct bearing on the subject, because the 'Rise and Fall' of the Australian Technical College, Perth South, appeared to be directly related to each side of Government being at odds with one another's policies. This study is concerned with Technical Education in Australia and much of the 'education' literature is divided between primary and secondary school education in Australia and university education. While the heading 'tertiary' education could be assumed to cover technical education, it is mostly concerned with 'higher' education which does not encompass technical education. The distinction is quite understandable given the apparent social mind-set predominant in the early part of the twentieth century. The researcher's experience was to be 'steered away' from a career involving manual skills and to be imbued with a belief that an academic qualification gave one a far higher social status.

A poor attitude to technical education compared with a university or academic education seems to have historical precedent in Australia at least, as discussed by Freyne (2010) and Baragwanath (2011) in section 4.2.1.1 jn "Education of the Working Class". More recently Rubin (2012) found that "working-class students tend to be less integrated than middle-class students in higher education institutions" (Rubin, 2012, p. 31) which agrees with Tesse & Walstab (2008) who conclude that it is necessary to address "economic and cultural barriers to participation in order to assist the VET sector to respond effectively to skill shortages and also to ensure equitable access to VET opportunities and good jobs" (Teese & Walstab, 2008, p. 18). The above references indicate however, that although this was initially mainly

due to the traditional class distinction prevalent in England, positive progress has been made over the years to address the imbalance, but that Australia still has room for improvement in this regard. Chapter 6 discusses similar changes in attitude in other countries towards technical education.

4.3 Chapter Summary

The chapter has discussed the themes identified from qualitative analysis of the historical data detailed in chapter 2 as shown in Appendix 4, in answer to three of the four research questions. The themes 'Skill shortage', 'Requirement for technical education', and 'Education of the working class' were discussed under over-arching theme of 'Perceptions of need for technical education establishments' and the themes 'Government control' and 'Government funding' were discussed under the over-arching theme of 'Justification for funding of technical establishments'.

The final theme identified was 'Attitude'. This was associated with the fourth research question and was discussed in the light of historical data to determine parallels with contemporary findings as discussed in Chapter 6, which was concerned with attitudes to technical education in other countries.

CHAPTER 5

Interview Results

5.1 Introduction

This chapter analyses the interview results to arrive at codes and themes to answer the four research questions. Section 5.2 describes the coding procedures for the interview transcripts for each of the research questions, interview responses to Research Question 1 are analysed in section 5.3, those for Research Question 2 in section 5.4 and section 5.5 and 5.6 investigate the negative and positive perceptions revealed in the interviews concerning Research Question 3. The analysis of Research Question 4 is found in Chapter 6 which is concerned with attitudes in other countries towards technical education. A chapter summary follows in Section 5.7.

This chapter concerns the interview responses to the ten set questions asked of the former staff and students of the Australian Technical College, Perth South. Section 3.6.3 gives an explanation of the way in which the codes and themes were derived from the interview questions and how they were assigned to 'Anchor codes'. The section explains that there were only two Anchor codes relevant to the study. The first Anchor code being 'Reason for Formation and Continuation' and the second 'Reason for Demise'.

The interview transcripts are shown in Appendix 2 in detail and 'First Level' codes were derived from them. Miles et al. (2014) refer to this as 'First Cycle coding', since codes are assigned initially to data. The type of coding in this study is a mix of 'descriptive' where the code is used to describe the intent in the data and 'In Vivo' which uses the interviewees own words in the coding (p. 7).

The 'Second Level' codes, also called 'Themes' as described by Miles et al. (2014 p. 19) were derived from these 'First Level' codes and are shown in Appendix 3. A positive code or theme was assigned to the **positive** Anchor code **('Reason for Formations and Continuation')** and a negative code or theme was assigned to the **negative** Anchor code **('Reason for Demise').**

During the interviews, the researcher often found it necessary to ask the particular interview question again to ensure that the participant gave a relevant response. The

structure of the interview and protocol allowed a very relaxed conversation, as all interviewees were well known to the researcher.

The First Level codes are listed at the beginning of each section and amalgamated to form major and minor themes at the end of the section. These derived themes, which are positive or negative responses concerning the research questions and associated Anchor codes will be covered in the Discussion chapter which follows. The Reliability, Validity and Limitations of the interviews were discussed in the Methodology Chapter 4, section 4.2.6 and 4.2.7 respectively. The interview transcripts were examined and a number of statements relevant to the 'Anchor Codes' – "Reasons for formation and continuation" and "Reasons for Demise" - were highlighted. This analysis is shown in section 6.3.

5.2 Interviewees Responses

Analysis of the responses from the interviewees to the ten questions was designed to provide a contemporary view in addressing the research questions. As indicated and detailed in **Appendix 2** and **Appendix 3**, coding was applied to the responses of each participant and the codes amalgamated and refined in 'second level' coding to produce major themes and minor themes derived in response to the research questions.

From the interview transcripts a number of relevant quotes were highlighted and assigned to the **Anchor Code** (See section 3.6.2) as shown. These assignations were added in the Comments column (see Appendix 2), together with a short statement that was condensed from the transcript text.

5.3 Response to Research Question 1: What were the underlying reasons for the new model of Technical Colleges to be formed in 2005?

Twelve First Level codes were identified from responses to Research Question 1, as shown in Figure 5.1:

Code number	First Level code	Times stated
1	Unique College program	12
2	Confidence in teaching standard	9
3	Confidence in teaching program	6
4	Production of quality apprentices	7
5	Confidence in teaching staff	7
6	Advantage over state school VET system	3
7	Positive Support	3
8	Confidence in the relevance of the program	3
9	Government funding	2
10	Good student environment	3
11	Political Expediency	1
12	Support from industry	2

Figure 5.1: **Coded interview responses from research question 1**

These codes were all derived from **positive** responses, so were assigned to the Anchor code: **'Reason for Formation and Continuation'**

5.3.1 First level code 1: 'Unique College Program'

Excerpts from the interviews follow, which highlight the "unique college program". The excerpts are the responses to the ten interview questions which had relevance to the code 'Unique College Program'.

Interview #1: *Former CEO*

The first interview was with the former CEO, who had been instrumental in initialising the program at the college.

*"We introduced something completely **different**… the five weeks on and off model…gave us a great advantage. It also gave us a great selling point to introduce staff into this college because it was **different**. It was an opportunity to do something very **different** from mainstream school. So I think we were able to attract people who are prepared to think **differently**…it was a great opportunity to look at the mainstream education system and pick out the best bits, but also look at what was*

missing, potentially in their system, particularly for boys and enhance their learning opportunities. So we matched both administration and teaching staff to those ideals, perhaps values of doing something ***different****."*

"...there were some other elements that go to teaching standards… we were also able to structure the employment arrangements ***differently*** *to the mainstream."*

"…this concept of 5 weeks on – 5 weeks off, I thought 'we can do this, we can do this in Western Australia'. Which is good for I suppose that's where...that was the planting of the seed that then germinated into our final plan for the college."

"...we had these young folks... to learn in very ***different*** *ways –* ***different*** *environment."*

"…we provided a learning environment which was very, very ***different*** *to mainstream education...that took those boys out of that 'locked in a box' classroom type of environment into that whole workshop environment. But from a WACE program that... the whole concept of conceptualising the WACE subjects to their trade so they could see relevance. All of those things were certainly strengths to the program".*

"I think the fact that we had people who were willing to do something ***different*** *all pulling together...to reach those outcomes, but doing it in a very* ***different way****…we pulled people out of mainstream education – they were willing to look at our program and understand that we were doing something* ***different****."*

The extracts from this interviewee's responses emphasised many times how 'different' the program was, and he used the term in answering a number of the questions regarding the program and the program's standards. It was clear that this concentration of the 'difference' highlighted the uniqueness of the college program.

Interview #2: *Former WACE Curriculum Manager*

The second interview was with the former WACE Curriculum Manager, who was responsible for implementing the Western Australia Certificate of Education curriculum at the college.

"So we were the only school in the State pumping out apprentices with stage 2 mathematics"

"*Making sure they were covered with PPE (Personal Protective Equipment). Workplace visits just to make sure things had taken place that were supposed to. Things that wouldn't happen if they were in a normal school or TAFE system. We just provided that extra support which meant that… we had more people stay in the apprenticeship."*

In the extracts from the responses to a number of questions, this interviewee constantly compared the college program and staff favourably with that of the school or TAFE system, highlighting the uniqueness of the college and program. Stage 2 mathematics was a generally higher level than that achieved for apprenticeship schemes at schools, which was a distinct advantage for employers. The college carefully organised and monitored the training of students in the workplace by conducting regular visits to work sites – another advantage of the unique college program.

Interview #3: *Former Head of Electrical Trade Training*

The third interview was with the former Head of Electrical Trade Training. He had been engaged subsequent to the withdrawal of funding.

"That's why we set those cubicles up….They would do lighting, they'd do power-points they'd do conduits, they'd do underground digging. Everything. So…they would be supervised and do it in the classroom, which was exactly the same as true industry experience."

This extract of the interviewee's response to the question of relevancy, once again pointed to the 'uniqueness' of the college and program. This interviewee had a great deal of experience in the electrical industry, and was able to organise the construction of purpose-built cubicles in which students could practice wiring of switches and power distribution boxes as well as the laying of electrical cables.

Interview #4: *Former Board Chair*

The former Board Chair had been present at the establishment phase of the college and had a very clear understanding of the college program.

"…the model we had was working well. By taking the students to do the four hours of their day doing the academic and the rest of their day doing trade training and vice

versa – the five weeks out in the workforce...Everything... Industry liked it, Mums and Dads liked it, students liked it, teachers liked it, trainers liked it because it was... Everyone liked it. It was a win-win-win for everybody."

(From a parent): "Every morning there were tears. There were fights. There was trauma. There were tantrums. Because he didn't want to go to school. And I was making him go to school. Our quality of life was diminishing rapidly." She said "And then, he decided he wanted to go to the Australian Technical College. And he started there six months ago." She said "Now I'm proud to call him my son." She said "No more tantrums. We now have a united family again. When he comes home at night we now turn the television off and he entertains us each evening with ...he's so excited what he's doing."

"So here's a kid spending eight hours at college, two hours going to, and two hours coming back, that's fourteen hours a day, and he's happy to do it. But he wasn't happy to spend six and a half hours going to school."

"And that made me realise that there's a need in society, in our community to have colleges like the Australian Technical College, which are doing a bloody excellent job in taking these kids who are not academically inclined...When we had employers who were making comments, statements like: "It's so good to have these kids coming to us, 'work ready' – when we take them they'll become a full time apprentice. In future, we won't take any kids off the street we'll get all our kids from the Australian Technical College, because they're 'work-ready' they're already sorted – the failures have already dropped out.""

The interviewee had unique knowledge of the beginning of the Australian Technical College in Perth and the excerpts were from his introductory narrative. They do however reinforce the positive aspects of the unique college program from his perspective and also form a typical parent's experience. His unique and personal experience of the positive reaction from industry was invaluable in the study.

Interview #5: *Former GTO Manager*

The former GTO Manager had been engaged to set up the Group Training Organisation at the college, which employed apprentices and trainees under a Training Contract and place them with host employers.

"The fact that (the students') academic and technical (education) were embedded together which is a great model for education … That's its main strength….fantastic facilities…it's hard for kids not to learn when they're excited by the equipment they'd got around them. The workshop – fantastic! It was established at the industry standard or above. The kids would often come back and complain that the workplace didn't have a plasma cutter, and they had one at school, and I'm sure none of the trade training centres are like that."

The extract from this response to the question concerning strength of the program highlighted the difference between facilities used by the students at the college and that they found in industry – regarded as a unique advantage. The interviewee had an administrative background and also had experience of apprenticeship schemes. His liaison with industry enabled him to make favourable comparisons concerning the college program with similar program for VET in schools and TAFE.

Summary

There were 14 instances in the interviews where participants mentioned the uniqueness of the college program as a reason for its continuation and this deserves further clarification. The former CEO was key in the administration process of the college initially, and stayed on as CEO until 2012 when he was followed by a succession of CEOs. Because he was present at the inauguration of the college, he had a thorough understanding of the processes required to initiate a unique program, which none of the CEOs that followed possessed. He made several references to the unique college program during the interview. He emphasised the 'different' aspects of the college compared with school or other VET systems and that staff were selected for their apparent ability to embrace the 'difference' of the college, which created the unique college program. He felt that the '5 weeks on, 5 weeks off' aspect of the college program, which had been suggested by an Adelaide college CEO, was a good 'selling point' to attract students and staff. This interviewee also made reference to the 'state of the art' equipment.

The former WACE Curriculum manager also made reference to the unique college program highlighting the elevated standard of mathematics compared with that taught to school-based pre-apprentices. The differences were quite marked also, with

relation to TAFE colleges. He commented on the attention to detail for students about to work in industry such as the insistence on uniforms and PPE (Personal Protective Equipment). He said that workplace visits were carried out by responsible trade staff of the college to monitor students' progress and performance in their place of work and that this would not happen if they were in a "normal school or TAFE system."

The interview with the former Head of Electrical Trades Training revealed that he entirely agreed with the 'difference' of the college program, saying that the 2 years trade studies at the ATC gave the student a "huge advantage". The former Board Chair also agreed that the college gave students a better chance of an apprenticeship than that which they would have had in the school VET system. This interviewee had accumulated a lot of experience in business and had very close ties with industry. He was able to relate an entirely different and refreshing perspective on the uniqueness of the college program from the parent of one of the students.

5.3.2 First level code 2: 'Confidence in teaching standard'

Excerpts from the interviews follow which highlight the staff's confidence in the teaching standard from which a first level code is derived. The excerpts are the responses to the ten interview questions which had relevance to the code 'confidence in the teaching standard'.

Interview #1: *Former CEO*

"…the teaching standard also reflected the teaching program. And I think we had...still to this day, think we had um...something that we could all be very very proud of in that program".

This interviewee had been largely responsible for the initial recruiting process and selection of teaching staff and may have had a biased view of teaching standards.

Interview #2: *Former WACE Curriculum Manager*

"…the teaching staff…stepped out of their comfort zones. When I said we need to raise the standard of numeracy, we need to raise the standard of our science, physics, you and (Person named) stepped up. Nothing was too hard. It was good."

"The teaching standard was good…the teaching standard just wasn't the issue…We definitely improved the literacy. The program started to become regular… So we were the only school in the State pumping out apprentices with stage 2 mathematics. Now stage 2 mathematics is entry level University".

Literacy and numeracy have always been very important topics in schools and the teaching standard, including the ability to improve these aspects of education, was closely monitored by this interviewee during the time he was employed by the college.

Interview #3 *Former Head of Electrical Trades Training*

"The people that I was using as trainers were the best trainers TAFE had. In the Electrical … when you look at people like (Persons named)…they're all at the top of their tree, you know".

The extract from the response by this participant indicated his pride in the trainers that he had personally engaged. While his answer was obviously biased, it did show a positive response to the professionalism of the teaching staff.

Interview #4 *Former Board Chair*

"I think the teaching standard was excellent, because my understanding is that the learning part was programmed to the technical outcome they're having in the afternoon".

"… And so I think the teaching standard was excellent, and the level of confidence in the program was very…it was high".

This interviewee would have only scant knowledge of the teaching standard, but would certainly have been involved if there had been a reported case of lower standards, so his input was valuable.

Interview #5 *Former GTO Manager*

"I think the teaching standard was quite high. There was a high degree of professionalism because of the commitment among the staff…the staff that I worked with were very committed to the model, and they loved the concept of blending the academic with the technical… so they were taking in many cases very disadvantaged young people and providing them with a focus for their education".

The interviewee focussed on the commitment of the staff particularly with regard to 'very disadvantaged' students. Many of the students had left a school system that they considered had failed them, so staff at the college needed a great deal of the commitment mentioned.

Interview #7 *Former Pre-apprentice carpenter*

"It was better than school, that's for sure. The tradies that took us in the workshop were brilliant. ... They kind of made us want to learn things, and told us how it would be used outside".

This former student's response was quite typical of the response from most students at the college, also emphasising the difference between the college program and that at schools.

Summary

The participants' confidence in the teaching standard was mentioned nine times and this was coded as a reason for continuation of the college program. In the main, the interviewees had considerable confidence in the teaching standard and the teaching program. These points were mentioned many times by various interviewees in response to interview questions, so would be regarded as a major theme. A comment from the former CEO emphasises that the teaching standard "also reflected the teaching program".

5.3.3 First level code 3: 'Confidence in Teaching Program'

Excerpts from the interviews with former staff and students of the college revealed the confidence in teaching program displayed by the interviewees. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'confidence in teaching program'.

Interview #1: *Former CEO*

"How much confidence did I have in that program? 100%...I played a big part in actually developing the program".

This interviewee was the CEO of the college when it first opened and as he developed the teaching program himself, would be expected to answer the question in a positive way.

Interview #3: *Former Head of Electrical Trades Training*

"I believe the concept of the ATC … what they were doing and the part they were fulfilling in terms of educating career starts of kids that were in the high school system that were never going to be University graduates or whatever … was second to none".

The participant had obtained a great deal of experience and contacts with industry through his own company, so had invaluable knowledge of the requirements by industry for apprentices. His comment therefore concerning his confidence in the program was well received.

Interview #4: *Former Board Chair*

"…And the model we had was working well. By taking the students to do the four hours of their day doing the academic and the rest of their day doing trade training and vice versa – the five weeks out in the workforce...Everything... Industry liked it, Mums and Dads liked it, students liked it, teachers liked it, trainers liked it because it was... Everyone liked it. It was a win-win-win for everybody".

"I think the teaching standard was excellent, and the level of confidence in the program was very…it was high".

The former Board Chair was not necessarily involved with the day-to-day running of the college, but had knowledge of the teaching program and its interface with industry. He was able to supply positive feedback from industry of the college program.

Interview #5: *Former GTO Manager*

"I think the WACE program which delivered the academic program was very strong … the requirements of the trade were often translated into the academic program and so the students themselves they could see the connection between what they were learning in the school program and what they were applying in the trade program".

As GTO Manager, this person would have needed to employ suitable students for positions with industry partners, so would have had a very comprehensive understanding of the teaching program giving him an informed positive answer.

Interview #6: *Former pre-apprentice electrician*

"We did some good things – real interesting stuff. I liked how we had trades, and then we had school stuff. It didn't get too boring, and it seemed better for getting us over the line – to be an apprentice".

Interview #7: *Former pre-apprentice carpenter*

"In the trades, we didn't have to learn from a book all the time, like in WACE. I'm not saying that we didn't need to do WACE (Western Australian Certificate of Education), it was just a bit like school".

Both students interviewed made positive comments regarding the teaching program, but the necessity of having to 'learn from a book' was rather reluctantly accepted, and is quite understandable, given the calibre of student that had chosen this system of education over the system used in schools.

Summary

There were eight instances where participants expressed confidence in the teaching program, and this was therefore coded as a 'First Level' code and a reason for the continuation of the college.

The former CEO admitted he was biased in his assessment of this, as he had been instrumental in its development, and the former head of electrical trade training thought the ATC was doing an excellent job. The former GTO manager agreed with this in saying that the requirements of the trade were often translated into the academic (WACE) program so the students were able to see the relevance of the academic program in their trade training and the former Chair's confidence in the program was reflected by his industry contacts.

5.3.4 First level code 4: 'Production of quality apprentices'

Excerpts from the interviews highlight the considered opinion by interviewees that the college could produce quality apprentices. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'production of quality apprentices'.

Interview #1: *Former CEO*

"... employers were coming to us saying: "Have you got more apprentices. We really like what you're providing. Have you got more...?" ... even in those tough times during the GFC, the quality of the apprentices ... was in a high standard in my view".

This was the only interviewee that mentioned the effect of the Global Financial Crisis (GFC) which occurred in 2008. While there was no large effect in Australia of the GFC, industry was understandably nervous and may have been reluctant to engage extra staff at this time. Therefore the comment from the former CEO was a very positive sign that the college was certainly producing quality apprentices.

Interview #2: *Former WACE Curriculum Manager*

"I would say, you know, 4.5, 5, somewhere in there."

The students that decided to complete their studies at the college were often those for whom the school system had 'failed', so it was encouraging to receive positive comments like these.

Interview #3: *Former Head of Electrical Trade Training*

"Look, we weren't at 5, we still had a pretty long way to go, but we'd certainly taken it back to about 3. ... that last group in the first 6 months, were ahead and had more knowledge, and they were up to speed with their units, because we had some discipline in the class and with the students from day one."

This interviewee gave an honest appraisal of the ability of the students at the time. He had been concerned about discipline in the class that he saw as having had a detrimental effect on the students' abilities to reach a high standard.

Interview #4: *Former Board Chair*

"I think it was crucial! Because it had the potential to seriously address the skill shortage. In a time when the State was 'soaking up' school people at such rapid rate you couldn't get tradesmen in Perth to fix your leaking tap because all the plumbers have gone up there".

Although the questions asked did not specifically mention the quality of apprentices, the response from this interviewee was included as it seemed pertinent. His comment about plumbers, for example, going 'up there' indicated the tradesmen taken away from the metropolitan areas by the Mining Boom in the Pilbara, in the north of Western Australia. This had created or exacerbated the 'skills shortage' in WA.

Interview #5: *Former GTO Manager*

"Oh, it was very high…I had no trouble in a '4'. It really was producing good, well-skilled young people".

As has been stated, this interviewee had been engaged to establish the Group Training Organisation (GTO) within the college, so had a very good idea of the calibre of apprentices that the college was producing.

Interview #6: *Former Pre-apprentice electrician*

"I reckon I'd give that a 5. I know a few blokes that got to be apprentices from school, and they said they wished they'd got onto a good deal like we'd got"

Interview #7: *Former pre-apprentice carpenter*

"I'd give it a 4… Most blokes though ended up in good places, so I reckon 4."

These students would probably not have a great knowledge of the overall quality of apprentices produced by the college, but their positive input was encouraging.

Summary

Several interviewees considered that the college provided a high quality of apprentices to industry, and this was considered a good reason for the college to continue operation. The former CEO noted the minimal effect of the GFC on demand for apprentices produced by the college, confirming the acceptably high quality of those to industry and the former WACE Curriculum manager agreed with this high standard. The former GTO manager was not involved in teaching the students, but had a very good idea of the quality of their training in Trades and WACE, agreeing with the other interviewees that the quality was quite acceptable.

5.3.5 First level code 5: 'Confidence in teaching staff'

Excerpts from the interviews showed that there was a general confidence in the teaching staff. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'confidence in teaching staff.'

Interview #1: *Former CEO*

"A great deal of professionalism and also empathy to the way we were doing the program and empathy with those who were taking the program".

"...we were certainly competitive in pay scales with mainstream education system, so that also allowed us to attract professional people".

It was important for the college to pick facilitators who had an innovative approach to teaching compared with that in schools. The students, as had been mentioned, had generally been unable to succeed in the school system, and the empathy noted by the interviewee had to be shown to these students to reinforce their desire to succeed as apprentices. The pay scales for facilitators were in fact a little lower than that in schools, but the attraction for professional people was to be able to tailor the syllabus to make it more relevant for the students, and this is where their professionalism was appreciated.

Interview #2: *Former WACE Curriculum Manager*

"... if you're talking about how passionate were the staff in the actual concept of the college and what it was going to do for the students as well as our society, you know, and industry in particular I know everyone was fully on board with it really".

"... just sensational. Sensational…Our councillors were sensational – probably the best councillors I've seen out of school and we got the most work out of them compared to anywhere I've ever seen…They were just excellent value for money".

Facilitators and other staff were chosen for their acceptance and agreement with creating relevant lessons within the existing syllabi. This is the professionalism and 'passion' required and noted by this interviewee.

Interview #5: *Former GTO Manager*

"I think we had in ATC a high degree of professionalism in the administration and the teaching staff".

"There was a high degree of professionalism because of the commitment among the staff".

The former GTO manager, not being employed on the teaching staff, would have a less biased view of the staff degree of professionalism. He mentioned the 'commitment', which was an integral part of the unique college program.

Interview #7: *Pre-apprentice carpenter*

"I reckon that the good teachers were really good – they gave us work that we could use later in work. It was sort of relevant - not like you get in school".

Comments such as this were encouraging in that even the students noted that facilitators were trying to create relevant work-related assignments.

Summary

As well as a high teaching standard and confidence in the teaching program, it was important to note comments concerning confidence in the teaching staff to deliver the program. The former WACE Curriculum manager also noted that: "No other college has, or had, or to this day to my knowledge has that level of expertise in the trade training area. No other school has it". Both students interviewed expressed a high level of confidence in the teaching staff.

5.3.6 First level code 6: 'Advantage over state school VET system'

Excerpts from the interviews indicated the considered opinion of the interviewees that the college was superior to the school VET system. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'advantage over state school VET system'.

Interview #3: *Former Head of Electrical Trades Training*

"...you're giving kids that are still in high school a bloody good start which gives them a huge advantage over someone who hasn't done any of this trade training. When apprenticeships come up and they leave school, these kids have got half their

apprenticeship completed. They've got a lot of knowledge – a lot of skills. They're miles in front of the greenhorn, who's just left school. He might have done very well in his final year test, but this kid…who's done 2 years at the ATC doing trade studies is miles in front in terms of gaining an apprenticeship because of his knowledge and skills at that point in time. It's a huge advantage."

The interviewee had a lot of experience in trades education, and was well aware of the requirements of industry for new apprentices. The problem seen for VET in schools by comparison was that there was really nothing like the purpose-built workshops and equipment offered by the college.

Interview #4: *Former Board Chair*

"… the Australian Technical College…took them at school age for the last two years, gave them the last two years of academic, and the first one year of trade training…they go into the workplace, already a valuable asset to their employer. And already sorted in their own head – "this is the career I wanna' pursue." Not "I thought this is not really what I wanted to do I'll try something else", and drop out. That's what happens in the State system".

"…if you think that throwing money at your local high school to deliver VET, it's more deep than you think, because, OK, you're going to give them money for infrastructure… The ATC model is far better than the VET in school one"

In summary, this interviewee gave an account of the difference between VET in schools and VET in the college:

Schools:

- *Different types of equipment needed for electrical, tiling, plumbing, bricklaying, automotive, carpentry, joinery, and cabinet-making.*
- *Requirement for different workshops for some of the above*
- *A number of different schools may be required to accommodate the different trades, with the choice of school dictating the possible trade for the student*
- *Different trainers need to be engaged for each of the different trades*
- *Funding needed to be set aside for above trainers*

Trade or Technical College:

- *All trades could be accommodated in the same venue, with all trade trainers being available.*

The quote by the former Board Chair (See Appendix 1), who possessed a great deal of knowledge concerning the requirements of industry, is a very complete and accurate assessment of the importance of a trades college compared with VET in schools. It was apparent from this interviewee's answer there really could be nothing in schools that would remotely approach the combination of academic 'relevant to industry' (WACE) subjects and a variety of different and comprehensive state-of-the-art trade facilities available at the college.

Summary

There were three responses from the two participants. The college was seen as having a definite advantage over VET in schools due to the purpose-built workshops that simulated a genuine workplace for the students. Participants also considered the positive support for students and staff, as well as their confidence that the college program was relevant, were definite reasons for continuation of the college program. The head of electrical trade training commented that the students that had completed two years of trade training as well as their WACE study at the college had a great advantage over students that only started their apprenticeship after they had left school. The former board chair echoed these sentiments in saying that the students at the Trade College had a two year advantage over students just out of school.

5.3.7 First level code 7: 'Positive Support'

The interviewees considered there was positive support for the college and its program. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'positive support'.

Interview #1: *Former CEO*

"There was also a lot of political pressure to keep Armadale open, both at the local Government level and also the Federal Government level…there was a very heavy political influence to try and maintain a presence in Armadale".

"…when we were looking for alternate funding sources I had a number of meetings with senior bureaucrats…in the West Australian Department of Education and I felt very strongly that we were a required organisation on the education landscape".

"…funding in the early days – it was a strength because it provided that infrastructure and allowed us…to provide our own scope – how we were going to do it. So that was certainly a strength…we carried that through even after the funding model...after the funding ceased. We carried the program, we carried the people, in terms of our staff, through into the next phase anyway. So I'd say those four things: the program; the infrastructure; the people; and I guess the funding behind it".

This interviewee was the incumbent at the inauguration of the college, and continued in this position for some years. The 'political pressure' mentioned regarding the effort to keep the Armadale campus in operation was probably mainly due to Armadale being a marginal seat for the Liberal government. This support was of course withdrawn after the Labor party assumed office, and this interviewee spoke of the efforts then required to support the college internally.

Summary

This code concerns the external positive support that the college received from industry or government and there were three participants who agreed this was the case. The former CEO recalled the positive political support from the Member for Armadale, Mr Don Randall and from Alana McTiernan, who was in the State Labor Party. The same interviewee also noted that there was a great deal of positive support for the College from the Education Department and industry.

5.3.8 First level code 8: 'Confidence in the relevance of the program'

Three interviewees considered that the college program was relevant. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'confidence in the relevance of the program'.

Interview #1: *Former CEO*

"I was asked to sit on a steering committee by the Director General, the Department of Education to provide input into our State to provide vocational education and training in schools. If that doesn't talk to the relevance of the program, I don't know what does. So from that education standpoint, the relevance was obvious".

The former CEO judged the relevance from the viewpoint held by the Department of Education at the time which may have had a political motivation.

Interview #3: *Former Head of Electrical Trades Training*

"I think it was very relevant…The theory training the kids got was second to none. They'd lost their rapport with industry through the past and we were gradually correcting that".

This participant had considerable experience with industry participation, and was in a very good position to judge the relevance of the program from an industry standpoint.

Interview #5: *Former GTO Manager*

"I think it was hugely relevant. I think it turned out in its time, wonderful young people into the trades. When I think back, seeing all those young people in there sort of – your 16 or 17 years, who otherwise wouldn't have had a trade future I think that did an outstanding job. And in a time when there was an enormous skill shortage as well, so we had no trouble placing kids from ATC with employers. Employers couldn't take enough of them".

The excerpt of the interviewee's answer to the question of relevance indicates that the success and relevance was partly due to the skills shortage which had created a demand for apprentices.

Summary

The former CEO had a close liaison with the Department of Education and in the initial stages of the college's establishment indicated that he had been instrumental in framing the terms of reference for the college, so had a very positive attitude to the relevance of the college program. The former Head of Electrical Trade Training cited the rapport that had built up with industry and felt that the program was very relevant on that basis, while the former GTO manager thought that the program was relevant on the basis of the expertise in the trade training area.

5.3.9 Theme 9: 'Government funding'

The former Board Chair considered Government funding was a positive contribution to the college. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'Government funding'.

Interview #4: *Former Board Chair*

"I happened to notice the newspaper: Expressions of interest called for 'Not for Profits' – applying for a grant to establish an Australian Technical College and a brief about how they would work. And I thought: 'What a clever idea!'"

"…'Stirling Skills Training' trading as 'Jobs West', and they had already received the funding approval to establish the Australian Technical College and they needed to establish a separate board, and they asked me to serve on the board of their parent – Sterling Skills Training – which I agreed to do".

In summary these were the only **two** positive comments regarding initial funding by the government, since the interviewee had a unique perspective on the initial formation of the college.

Summary

Government funding was cited as a reason for continuation by one interviewee, as it had been forecast at the initial stage of development.

5.3.10 First level code 10: 'Good student environment'

Some of the participants considered that the college had a good student environment. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'good student environment'.

Interview #4: *Former CEO*

"…we provided an environment that I think assisted the majority of them…to reach perhaps a level they may not have got up to in our school system, and chiefly in WACE".

"…our main audience was male; we provided a learning environment which was very, very different to mainstream education. So, there's been a wealth of study into boys in education and I think we …provided a program that...took those boys out of that 'locked in a box' classroom type of environment into that whole workshop environment".

"…these kids that were doing it in the morning and then going into the work environment in the afternoon, and having to work out the angles for a roof, and

various other things they were doing, it suddenly makes sense, the penny drops, and then they become a sponge…".

The former CEO felt that the college provided a 'good student environment' for a number of reason, and he was well qualified to judge this, due to his close relationship with industry partners and knowing the calibre of student apprentice required.

Interview #5: *Former GTO Manager*

"The fact that their academic and their technical were embedded together which is a great model for education … I think having the fantastic facilities that it had. You know I think it's hard for kids not to learn when they're excited by the equipment they'd got around them."

This interviewee highlighted the 'fantastic facilites' and students being 'excited about the equipment', both of which augured well for a 'good student environment'.

Interview #6: *Former Pre-apprentice Electrician*

"Well, it's good that you can get to leave school before year 11. School really sucks, and they don't teach you stuff you really need to know. Other times they teach you loads of stuff you don't need. … if you muck about at the college, they can chuck you out. That stops a lot of the blokes doing stupid stuff. It's sort of half-way to being an apprentice and learning what you need to know – you know, maths and that – to help you get a job."

The former student's comment was fairly typical of the view of most students, drawing a direct comparison between school and the college.

Summary

The former CEO made a favourable comparison of the college's learning environment with that of VET in school. Emphasising that the majority of students studying trades qualifications was male, the interviewee talked of students not being in a 'locked in a box' learning environment, but instead the students had access to a 'whole workshop environment'.

The former GTO manager agreed enthusiastically with this view citing the fact that technical and academic education together was responsible for a good student environment.

The college was also regarded quite highly by the students who regarded the relevant college education more beneficial than the holistic approach used extensively and necessarily in schools.

5.3.11 First level code 11: 'Political Expediency'

The former Board Chair opined that political expediency was initially a positive reason for the establishment of the college on the two campuses in Perth. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'political expediency'.

Interview #4: *Former Board Chair*

"I queried: "Why would you be doing this – why would you put in one campus in Armadale, and one campus in Maddington, when they're both in that Eastern corridor, and relatively close together?" I subsequently found out the reason why. They were both marginal seats in Federal electorates… held by Liberal members, and the Howard Government wanted to fund something to make the people in those electorates smile, and therefore vote for them. So it was being used, I discovered then, as a political tool of manipulation".

This excerpt from the interview with the former Board Chair was the only comment that highlights the *positive* aspect of 'government expediency' regarding formation and continuation of the college.

Summary

It appears from the informed statements by the former Board Chair, that at least some of the colleges were placed in geographical locations to benefit the government. In a later question this interviewee was able to shed more light on the reason for forming the colleges, and it related to the infrastructure required to establish training facilities in State schools, indicating that the colleges were a necessary adjunct to the VET State school system.

5.3.12 First level code 12: 'Support from Industry'

The former CEO and former Head of Electrical Trades Training considered that the college had positive support from industry. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'support from Industry'.

Interview #1: *Former CEO*

"A 5. ...employers…were coming to us saying: "Have you got more apprentices. We really like what you're providing. Have you got more...?" We didn't. We had a small number at the start up. But even in those tough times during the GFC, there were very, very few failures in those apprenticeship areas...so it was in a high standard in my view".

Interview #3: *Former Head of Electrical Trades Training*

"...we'd already started communicating with all the…all the electricians and electrical companies around the district…and they were quite enthused. There was quite a few employers that were more than happy…to take 'em on for work experience".

Summary

Both interviewees considered that the quality of apprentices produced by the college was making a solid impression on local industry, judging by the positive reception and comments from that quarter. The former CEO had been instrumental in the establishment of the apprentice program, and it could be said that his opinion contained a certain amount of bias. However, the former Head of Electrical Trade Training was of the same opinion, and his comments were based solely on his contemporary experience with the apprentices that the college had produced.

5.4 Consolidation of Themes for Research Question 1:

The 12 first level codes noted from the responses to research question 1 and shown in Figure 5.1 were used to arrive at major and minor themes as shown in Appendix 3 and repeated here, with 'major themes highlighted. This 'Second Level' coding to amalgamate First Level codes to form the themes shown (Miles et al., 2014, p. 19).

Unique College program
Advantage over state school
VET system
Good student environment

Superior College program (Major theme)

Confidence in teaching standard
Confidence in teaching staff

Confidence in teaching staff and standard (Major theme)

Production of quality apprentices **- High quality of graduate apprentices (Major theme)**

Positive Support
Government funding
Political Expediency
Support from industry

Positive support for program from Industry and Government (Minor theme)

Confidence in teaching program
Confidence in the relevance of the program

Confidence in program and relevance (Minor theme)

5.5 Response to Research Question 2: What were the reasons behind the withdrawal of funds for Technical Colleges in 2009 leading to the demise of some colleges and the absorption of others into the TAFE or school system?

Four first level codes were identified from responses to Research Question 2, as shown in Figure 5.2:

Code number	First Level Code	Times stated
1	Funding problems	19
2	Political expediency	7
3	Diseconomy of scale	3
4	Influence of GFC	1

Figure 5.2: **Coded Interview responses from research question 2**

These codes were all derived from **negative** responses, so were assigned to the Anchor code: **'Reason for Demise'.**

5.5.1 First level code 1: 'Funding problems'

A number of interviewees considered that the problems with funding for the college was an important issue. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'funding problems'.

Interview #1: *Former CEO*

"…part of the downfall was the sustainability of 'peace' around, ongoing funding not being there and then having to develop a new model that kind of...was self-sufficient under the Labor Government".

"…we were provided sufficient funding when we were part of the Australian Technical College government program……that amount was agreed upon, and initially having approved the capital to build the Maddington campus and equip both campuses. (including Armadale campus)…No capital funding for Armadale – needed to find a different way to fund that…very expensive lease because it was a purpose-built facility. And one of the big sticking points was the cost of the lease – Armadale…we looked at a number of options including letting the Armadale campus go. What the numbers showed us at that point was that if we let it go then really Maddington was not sustainable. We just wouldn't get the volume of students to keep the funding going so we needed to keep Armadale open"

"…we were right to the end of '09 in terms of the amount of money that we had available to us… we'd have to come up with a different funding structure post 2009… but we had to become self-sufficient beyond that…we had to find this other funding source which worked - the GTO was designed to be that… it didn't get traction as we would have liked to see as a GTO – it didn't get our full class numbers from year 1…perhaps that was, in hindsight, a 'bridge too far'. I mean from a funding perspective...but at the time, we certainly felt that we had the right business model. But things started to tighten – after '09, things started to tighten".

"…the obvious weakness was the loss of the funding....maybe we didn't read the economic climate well enough when we were doing our research and presenting our business case for the new model with the Group Training company. So we didn't hit our targets. …we hit about 70% in our first year as I recall and that was problematic from a funding perspective, so, you know, we had all the best intention and we read,

you know, the signs that were there we read, at the time, we felt we could do it better, so perhaps that was a weakness...strategically".

"I just felt that the college lost its vision. I think...even its purpose. Once a number of the original people that were around at the start who perhaps we invested so much in it personally, that we held that fabric together for a while, beyond the funding – the Government funding…once senior leader areas left in and around the same time, that vision, or that purpose, perhaps left with us."

"I do think that...I think in any organisation when you turn over a large portion of your leaders and others – it wasn't just the leaders who decided to move on – you're going to have different perspectives on things. And the ownership of the program…and the desire for its success...was very much with those people that were there from the start."

The former CEO, who had stayed with the college for most of the time it was economically viable, gave a very comprehensive account of the problems associated with the withdrawal of funding. The government had dictated the terms of the agreement, and these terms included establishment of two campuses, at Maddington and Armadale. The difficulty was that only the Maddington campus had capital funding and the Armadale campus had to be leased. Because the facilities were so specialised, the lease was very expensive and when further funding after 2009 was not forthcoming, the college had to rely on its establishment of the GTO to inject the required funding. This was apparently not entirely successful.

Interview #2: *Former WACE Curriculum Manager*

"Having the two campuses killed us, big time. So that was a political decision. So a lot of our expenses were created politically in the initial set-up of how the place was set up so, not being allowed to buy Armadale, like we were able to get hold of the land at Maddington, having to have a third party build and own Armadale, and then lease it back to us, killed us…we had to borrow ten million from Bendigo Bank - if we didn't have to do that, financially we'd have been OK.

"…just understanding and marrying up the nature of trade funding with school requirements, so prior to 31st December 2009, we had that regular set block of money coming in – we knew what we were going to get, we knew what we were going

to expend, it was very solid, we didn't have to worry about going out and earning nominal training hours to be able to fund the spots. After that time, all of a sudden, our training was no longer focussed on what the kids needed, what the employer wanted, it was then focussed on…what units do we need to do to make sure we get enough training hours in to be able to pay for the program. So there was a switch in emphasis away from what was the quality of training to making sure that we could actually afford to keep the place afloat."

In addition to confirming the historical account given by the former CEO of the disadvantageous funding arrangements required for initial setup of the college, the former WACE Curriculum Manager highlighted a secondary effect of the lack of funding, in that the standard of students enrolled at the college fell due to there being a concentration of numbers rather than quality, in order to keep up the State government funding which was based on student contact hours.

Interview #3: *Former head of Electrical Trades Training*

"…like every other part of the Education Department…you've gotta' have Government funding and Government support, and they didn't get the appropriate level of funding and support – they couldn't survive".

"Funding: They didn't get enough of that".

This interviewee stated unequivocally that the reason for the demise of the college was lack of funding alone.

Interview #4: *Former Board Chair*

In the introduction with this interviewee, the following points have been condensed form the interview transcript (see Appendix 1):

- *Funding by the Federal Government was only for land purchase and building of the premises and equipment at Maddington campus.*
- *Federal Government had stipulated that two campuses needed to be established (both in marginal electorates) – Maddington and Armadale.*
- *Green Title for the Armadale land was facilitated by Alannah McTiernan who was very supportive.*
- *Since no funding was available for Armadale campus, a developer was chosen to buy the land, build the Armadale premises and lease it back over a*

four year term at which time the second tranche of funding from the Federal Government would reimburse the college and the developer.

- *Cost 'blowouts' for Maddington meant that less funding was available for Armadale, and the second tranche did not occur due to the change in Government.*
- *Julia Gillard was able to release an extra 2.8 million dollars, but the college had to borrow 8 million dollars from the Bendigo Bank.*
- *Government was prepared to pay a further 10.5 million dollars and this would have saved the college, but the Treasury decided not to release the funds.*

"Funding was politicised. That was really our Achilles Heel".

The former Board Chair gave a very comprehensive historical account of how the funding was given by the Liberal government then stopped by the Labor government at the '11th hour'. It does appear that a huge effort had been made by this interviewee to keep the college 'afloat' in confrontations and representations to the government but was ultimately unsuccessful in saving the college.

Interview #5: *Former GTO Manager*

"…as soon as the Federal Government pulled that one revenue stream and sent the funding of the program back to the State, it was required to generate its own revenue. It still had the same out-goings, still had the same cost structure but it had to then try and fit a different model of funding to meet those costs, and those were manifestly inadequate – and they would have been that way for any structure of that size that was expected to do that much work. So you think you've got virtually double the teaching staff, because you're doing both the trade training and the academic, and you've got very small numbers; you've got two campuses – so really it was a recipe for disaster I think".

"It failed because of funding really, I think, substantially…They made a one-off grant to allow the college to secure the loan over the Armadale premises and to own Maddington, so they set it up in the best position they could have, to succeed, and then they gave it the ability to. It was already an RTO and a school, so they said yep, we'll continue to contribute the school funding but any other funding that you're going to generate you've got to generate on your own, so you've got to sell training to people".

The former GTO manager again confirmed the earlier interviewees' comments concerning the problems trying to establish two campuses with only one tranche of funding. It was interesting that there was no mention of the ulterior motive to establish the campuses in Maddington and Armadale, which the former Board Chair had found were marginal seats for the government. This interviewee was convinced they were in the 'best position to succeed'.

Summary

Funding problems were mentioned 19 times by interviewees and thus is a very important point. The participants were referring not only to the withdrawal of funds by the Labor government but also the effect that this had on the operation of the college. Most of the participants would be ignorant of the reasons behind the withdrawal of funding for technical colleges, but that reason alone may not have caused the demise of the colleges, although it was probably a large part of the reason. However, the withdrawal of funds was a catalyst for many if the colleges to find other funding and other means to continue operation. The success or failure of these other means was a direct consequence therefore of the fund withdrawal, so the interview question could be satisfactorily linked to the above research question. The former CEO possessed a great deal of knowledge concerning the early funding of the college, and explained the complexities of negotiating funding for the two campuses in Perth. Although only one campus (Maddington) had been funded by the Technical Colleges Act, a mechanism had to be established to build the second campus at Armadale. Since there was no capital funding, a lease arrangement was embarked upon, which was quite expensive. The Technical Colleges Act guaranteed funding until 2009, but the college had to negotiate a funding arrangement with the Labor government in 2009. A 'Group Training Organisation' was established, that would hopefully supply the funding needed to sustain the college. Unfortunately the lease costs of Armadale, the lower than expected student numbers (which reduced the funding as an RTO from the State government) and the fact that the GTO did not bring in as much funding as had been hoped, meant that eventually, the college could not survive, despite a large loan from the Bendigo Bank. The former CEO suggested that the 'economic climate' had not been evident to the planning committee for the GTO. The former GTO manager felt that it wasn't the GTO that didn't bring in the

required funding, it was the fact that the funding there was, had to support the college.

The former WACE Curriculum Manager agreed that the main difficulty with funding was the sustainability of the two campuses. Other interviewees familiar with the administration of the college only saw the lack of government funding as a stumbling block, without the same in-depth knowledge as demonstrated by the former CEO, former WACE Curriculum Manager and former Chair.

Low student numbers meant that State government funding would be reduced, since it was dependent on student enrolment**.** As the former CEO noted in his interview relating to the two campuses of the Australian Technical College, Perth South, that Maddington would not be sustainable if they 'let Armadale go' due to the reduction in required student numbers to maintain State Government funding.

5.5.2 First level code 2: 'Political expediency'

The former CEO and the former Board Chair felt that 'political expediency' was partially responsible for the demise of the college. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'political expediency'.

Interview #1: *Former CEO*

"…it was very clear that the WA State Government was not going to support us. We had a Labor Government in West Australia. So, had the politics at play over not wanting to support a Coalition policy".

The Federal Labor opposition had stated that if and when they came to power, they would withdraw funding from the Technical College initiative. Because of this, as the interviewee explained, the State Labor government in Western Australia would also not support the college in Perth.

Interview #4: *Former Board Chair*

The following points were condensed from the interviewee's introductory talk (see full text in Appendix 1):

- *In 2005, the Federal Labor Opposition stated that it would 'shut them down' as soon as they came to power, regarding the college program then being enacted by the Liberal government*
- *They 'opposed' the Act because they were 'the Opposition'*
- *Mr McGowan (the Minister for Education and Training) said that government had "wasted money" and that college "was a failure" since no student had graduated although it was under the two years required for the first students to graduate (Press release 2 November and 16 November, 2007)*
- *Interviewee had low opinion of Mr McGowan due to being misled over a visit to the college that may have persuaded Mr McGowan that the college was a worthwhile project*
- *Misleading press statement from Mr McGowan had a direct effect on enrolments at the college at a critical time, recruitment of staff and rapport with industry*
- *The whole exercise of college establishment and funding was heavily 'politicised' which was detrimental to the support of the college*
- *Bi-partisan support was not achieved initially, which this interviewee believes had a detrimental effect on the on-going continuation of the college.*

"The weakness was in politicising the funding system".

This interviewee gave a long and detailed account of the politics behind the establishment and funding of the Australian Technical Colleges and excerpts were summarised in dot points. Mr McGowan is presently Premier of Western Australia after a massive swing to Labor in the 2017 election, so his view on Technical colleges as evidenced by his lack of support in 2009 may not auger well for future RTO organisations in WA.

Summary

Some participants were of the opinion that the demise of the college was in some part caused by the government decision to withdraw not only funding, but support. They felt that the government made these decisions for reasons of expediency and since it was mentioned a number of times, it deserves scrutiny.

The former CEO and the former Board Chair agreed that there was considerable lack of support from the State and Federal Labor governments and any doubts concerning how political expediency was a major factor in the demise of not only the Australian Trades College in Perth, but all other colleges, can be found in the quote of the

transcript from the former Board Chair, in which he spoke of the apparent duplicity of Mr McGowan who was: "singing from the Federal Opposition's hymn book: "When we're in Government we'll shut 'em down!" So he did everything he could to make it become still-born – for political reasons, not for the benefit of the students or the community or whatever." This quote by the former Board Chair appears to be crucial as it highlights an indisputable reason for the demise of the college.

5.5.3 First level code 3: 'Diseconomy of scale'

Only one interviewee considered that diseconomy of scale played a part in the demise of the college. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'diseconomy of scale'.

Interview #5: *Former GTO Manager*

*"I think where there were deficiencies they were quite easily exposed because of the **size** of the ATC. I think **small** organisations mostly suffer from that."*

*"So my thinking is in the teaching of the trades we had such **small numbers** of staff in each trade. 'Cos that was one of the deficits in the model was that it tried I think to cover far too much ground…we had the two trades at Maddington and the three trades at Armadale and in trying to cover those effectively for what was in effect under 100 students…it was really hard and so you're expecting then for the teachers without a lot of support to cover all of their own teaching, all of their own preparation, most of their own administration, to get current in their trade, and really do the work of a teacher who would be supported by a whole college. I think the **diseconomy of scale** was a big killer for the ATC – in the end".*

*"Well, apart from what we've spoken about, well I think the biggest weakness is the **diseconomy of scale**. If it was bigger, it could perhaps have survived. And so the **diseconomy of scale** resulted in your needing to make shortcuts. So for example the curriculum support was very rarely there".*

Summary

Diseconomy of scale, which was mentioned three times by the one interviewee refers to the difficulty of maintaining college infrastructure without external support (for example, funding) due to the small relative size of the college. The advantages of a

small organisation, such as more personal service, less bureaucracy and faster resolution of individual problems was overshadowed by the difficulty in maintaining an economically viable organisation.

5.5.4 First Level code 4: 'Influence of GFC'

An analysis of the excerpts from the interview with the former CEO follows, which highlight the influence of the Global Financial Crisis (GFC), which occurred in 2008. The excerpts are the responses to the ten interview questions which had relevance to the first level code 'Influence of GFC'.

Interview #1: *Former CEO*

"... 2007 we opened the doors, so it was prior to GFC. We had small numbers and we had employers knocking on the doors for more apprentices. When the GFC hit (in 2008), you know, industry sort of backed away a bit, from numbers and apprentices and so on".

Despite the importance of the Global Financial Crisis (GFC) this was the only quote regarding its effect on the demise of the college.

Summary

The Global Financial Crisis occurred during the years of operation of the college, but only one interviewee, the former CEO, thought that it affected college sustainability. Industry was understandable nervous as the crisis unfolded in the rest of the world, and was reluctant to engage apprentices or recruit any new staff in some cases. The college was dependent upon industry engaging apprentices, so this attitude was of some concern at the time.

5.6 Consolidation of Themes for Research Question 2:

It was not useful to condense the above first level codes and are shown in Appendix 3 and repeated here as themes, with 'major themes' highlighted:

- **Problems associated with fund withdrawal**
- **Political expediency**

Major Themes

- Diseconomy of scale
- Influence of GFC

Minor Themes

5.7 Response to Research Question 3: Did the perceptions of former staff, students and administrators towards the now extinct model of Technical colleges formed by the Howard Government in 2005 have any bearing on the demise of the college?

The demise of the college could be attributed to external or internal factors and a combination of both. External factors have been examined including funding problems and government expediency. The analysis of internal factors follows and these include such problems as poor administration, staff standards and professionalism. Two **Anchor Codes** were assigned to this question, since some of the former staff and administrators had **negative** perceptions of the college, while others had **positive** perceptions. The same research question could therefore elicit **two different responses**, and therefore may be assigned to **two different anchor codes**, either **'Reason for demise'** in the case of negative perceptions or **'Reasons for formation and continuation'** in the case of positive perceptions. These will be examined in turn.

12 First Level codes were identified from responses to Research Question 3 **(negative perceptions),** as shown in Figure 5.3:

Code number	First level code	Times stated
1	Administration problems	8
2	Problems with student behaviour	2
3	Partial failure of GTO	1
4	Difficulty in achieving Government Compliance	1
5	Initial difficulty in selling concept to industry	1
6	Costly program	1
7	Lack of foresight	1
8	Perceived unsustainable benefits to staff	1
9	Problems with teaching program	1
10	Perceived lack of professionalism	1
11	Some low teaching standards	1
12	Staff tensions	1

Figure 5.3: **Coded Interview responses from research question 3 – Negative Perceptions**

These codes were all derived from **negative** responses, so were assigned to the Anchor code: **'Reason for Demise'.**

5.7.1 First level code 1: 'Administration problems'

The following excerpts from the transcripts indicate that they considered the college to have had administration problems that had a negative impact on its continued operation. The excerpts are the responses to the ten interview questions which had relevance to the code 'Administration problems'.

Interview #2: *Former WACE Curriculum Manager*

"… our service to managing the RTO that really took a big dive".

"…the RTO killed us. Failure of the RTO. We knew we were going to have to be self-funded, so the idea of having the school section, the RTO section and the GTO section combined, we didn't have the expertise to run the RTO properly in my mind".

Management of the Registered Training Organisation (RTO) was an administrative responsibility, and this interviewee pointed to certain deficiencies here. It was a crucial part of the operation of the college, so the importance of mismanagement here could not be under-estimated.

Interview #3: *Former Head of Electrical Trades Training*

"There was a lot of shortfalls in the administration...They should have never had a bricklayer, or an ex-bricklayer, going out, and doing the field supervision and the sign-offs for an electrician out in the field, when they're doing their work experience. The administration were the people that allowed that. It was part of their downfall".

"…if a person is that disruptive you take 'em out of the classroom and then you expect whoever is in charge to deal with it and do something about it. … And yet the administration never addressed the issue. Never!"

"Well the last two (of the college administrators) were both total non-communicators. How can you have a CEO and your second in charge that don't even talk to the staff? (Person named) would not answer phone calls to staff; she would not answer phone calls to parents – she answered phone calls to nobody. Nobody".

"…the unfortunate part is, that when (Person named) came there, just everything died. There was no communication whatsoever…We wanted to have an industry

night, where the CEO would actually talk to these guys. We had about 30 or 40 local electrical companies from the area that were going to come to our industry night. I couldn't even get her to answer the phone so I could talk to her about it!"

"I didn't see any weaknesses apart from the bloody administration".

"Administration was the big one. … you have to manage your budget…the way you're paid is that you get 'x' number of dollars per SCH – student contact hours…that's the way the department pays the training organisation and funds it. You can't live with classes of 6. You can't make ends meet. In TAFE, the generic numbers these days is about 16. OK, you can't have 16 in the workshop, but you know what you can do? You can have 20 in the class for theory and then have two lecturers in the workshop. There's all sorts of things you can do to make the budget work. … I started talking about those sorts of things with (Name withheld) I says: "Look, in future, instead of having a group at the beginning of the year, a group mid-year or whatever, why don't we aim to get the numbers we need at the beginning of the year?" When you're doing the theory class, when you're doing the theory component, you have one lecturer that can have 20 kids. There's not a problem with that. You can do that in theory. But when you're out in the workshop, one lecturer cannot have 20 kids. But if you have two lecturers in the workshop, then overall in the average, over the year, it's like 15 kids in a class. Right? That's SCH you're getting and you're not paying teaching hours for, which gives you money for other things, to get your equipment and so forth. They just didn't manage it right".

The interviewee was really disappointed that despite his best efforts, he was stymied by apparently incredibly inept management, as evidenced by the excerpts from his interview transcript. The problem arose towards the middle of 2012, when several key employees in upper positions left the college in short order. Two CEOs were appointed that did not appear to have the expertise to carry out the responsibilities of their position, and as this interviewee stated, "They just didn't manage it right".

Interview #4: *Former Board Chair*

"…to add insult to injury, two bad choices of CEO back to back, at a critical time when funding was tight and drying up".

"I think with some of the administrative people, not all, but in some of the administrative people, there was some lacking. And I mention that because particularly two CEOs that didn't make the grade".

The former Board Chair confirmed the opinion of the previous interviewee that the two CEOs appointed latterly were really not good choices, particularly in the case of the last CEO, despite assurances from her that getting the college back to profitability would be a 'walk in the park' for her.

Summary

Among the negative factors impacting the viability of the college, administrative problems was one of the main issues that was mentioned many times during the interviews. One could assume that the demise of the college had little to do with the day to day running of the college, the standard of teaching or any internal problems the college might have had, and that it was simply a Labor government decision to follow through with an election promise to remove funding. On the other hand, once funding was removed, some colleges, like that in Perth South, were able to put procedures together to continue operation with a number of initiatives. The meaning therefore, of the research question, is to ask if any other factors impacted these initiatives after removal of government funding.

The former Head of Electrical Trade Training felt it was more to do with the administration of training, suggesting that there were a lot of shortfalls in the administration. However, he also called attention to the new CEOs that were appointed in the final few months of the college's operation, mentioning the total non-communication of the last one. This interviewee went on to say how hard he'd tried to ensure the on-going survival of the college, but had no help from the upper administrative staff. The former Board Chair also agreed with the assessment of the last two CEOs to be appointed to the college, calling them 'bad choices'.

5.7.2 First level code 2: 'Problems with student behaviour'

Excerpts from the interviews conducted with former staff and students highlight the first level code 'Problems with student behaviour'. The over-arching '**Anchor code**' for the second research question was '***Reason for Demise'*** and the following

excerpts from the interview (see Section 3.5) were deemed relevant to the code 'Problems with student behaviour':

Interview #3: *Former Head of Electrical Trades Training*

"I can remember having discussions with (Person named) and walking past her room on numerous occasions. You had guys sleeping on the benches, you had guys playing games, you had…It was just a totally disruptive class".

"You do get rid of them – you turn round and try and discipline 'em, and then you've got the councillor, or you've got the person in charge – they just bring 'em straight back in, and the best you get is: 'Oh, some of these kids come from disadvantaged families, and you'll just have to do the best you can with it, but kickin' 'em out of a classroom is not the way to go'".

This interviewee was the only one that made reference to poor student behaviour being a possible factor in the demise of the college. The former Head of Electrical Trade Training was a strict disciplinarian, and believed that management of poor student behaviour in some cases may have impacted the standards of the college which in turn may have had a detrimental effect on its long term economic viability.

Summary

Problems with student behaviour are very common in schools. The difference with the Australian Trades College, Perth South, was that there were possible repercussions that affected the running of the College. When funding was removed, the college needed to attract more students to obtain the most State government funding possible, which meant lowering standards. This had a negative effect on the reputation of the College and produced more problems in general study classes and trade classes. When a disruptive student was engaged in work experience with an employer, his or her behaviour reflected on the college.

5.7.3 First level code 3: 'Partial failure of GTO'

The former GTO Manager and the former CEO considered that partial failure of the Group Training Organisation (GTO) had a negative impact on the college. The following excerpts are the responses to the ten interview questions which had relevance to the code 'partial failure of GTO':

Interview #5: *Former GTO Manager*

"Now I was brought in to develop a group training scheme, so, in mind was a source of revenue…a fully owned subsidiary of the college was the group training scheme, and it alone was generating a workable surplus but it wasn't able to actually be successful because that working surplus was required to support a much greater deficit for the parent company".

Interview #1: *Former CEO*

"…we had to find this other funding source which worked - the GTO was designed to be that…it didn't get traction as we would have liked to see as a GTO – it didn't get our full class numbers from year 1...it wasn't disastrous but we still would have preferred a better option".

While both these interviewees agreed that the GTO was a partial failure, they both stated a different reason for it. The former GTO manager suggested that the revenue was channelled to the parent company's deficit while the former CEO considered that lower student numbers was the reason for the lack of revenue from the GTO.

Summary

The Group Training Organisation was a company within the college that it was hoped would supplement the revenue stream for the college and allow the ATC to remain financially viable. Unfortunately, there were several problems with the concept, the main one being that the revenue generated by the GTO was only sufficient to count towards the financial support of the parent company.

5.7.4 First level code 4: 'Difficulty in achieving Government Compliance'

The following excerpts from interviews with two participants are the responses to the ten interview questions which had relevance to the code 'Difficulty in achieving Government Compliance':

Interview #1: *Former CEO*

*"…there was a lot of Government... a lot of **compliance** requirements with both the school side and the RTO side. So we had to **comply** with the AQTF (Australian Quality Training Framework) standards, we had to **comply** with the teaching standards, as a registered school".*

Interview #2: *Former WACE Curriculum Manager*

"…we didn't have the expertise to run the RTO properly in my mind. What I was talking about was after (Person named) left, there was a humungous hole there and things started to go off the rails, staff started to turn over, our ***compliance*** *started to drop…everything. And that started to kill us".*

The former CEO expressed concern about the degree of compliance required by the government to fulfil the charter as an RTO, but the former WACE Curriculum Manager noticed the situation that occurred after a number of key staff members had decided to leave the college after funding withdrawal. Replacement CEOs and other staff simply did not have the expertise to run the college to fulfil all compliance requirements.

Summary

After establishment of the 24 training colleges throughout Australia it was necessary that they comply with various government requirements. These included student numbers, qualified trainers and compliance with the Australian Quality Training Framework (AQTF). The lack of support from the governments – both State and Federal - in the final stages of the life of the college, when desperate attempts were made to secure more funding could have been partly due to their knowledge that the college was simply falling short of compliance requirements.

5.7.5 First level code 5: 'Initial difficulty in selling concept to industry'

An excerpt from the interview with the former WACE Curriculum Manager follows, in which he recalled the difficulty in selling the concept of the college to industry. The following excerpt is the responses to the ten interview questions which had relevance to the code 'Initial difficulty in selling concept to industry':

Interview #2: *Former WACE Curriculum Manager*

"…there was quite a few industries that couldn't accept their concept of 5 weeks on, 5 weeks off, … combining workplace time with going back into the trade training time…Businesses are all about making money, they're actually not about teaching kids how to learn a trade to continue their trade on. The 'tradee' or the tradesman

pride … seems to have been lost. So one of the steps we had was obviously trying to regenerate that and finding employers that had a similar sort of ethos".

This was the only quote concerning this aspect of weakness in the Australian Technical College program. This interviewee had a very professional work ethic that was difficult to sustain after funding was withdrawn and the standards of students enrolled at the college became lowered in order to sustain the student numbers.

Summary

The importance of a partnership with industry cannot be under-stated. The Technical College program proposed initially that representatives of Industry be included on the various Boards of Directors to fulfil this requirement. Unfortunately, the program was initiated with a very short time frame, so liaison with industry was not firmly established and it was initially difficult to sell the new concept and program of the college to industry. There was little time for discussion with industry leaders and this was noted by the former WACE Curriculum manager.

5.7.6 First level code 6: 'Costly program'

An excerpts from the interview with the former CEO follows which highlight his concern for the cost of the college program. The following excerpt is the responses to the ten interview questions which had relevance to the code 'costly program':

Interview #1: *Former CEO*

"It was an expensive program. We were heavily reliant on lots of resources, we had a massive capital injection, getting equipment and so on, and the Maddington facility which came from the Government. The funds came from the Government. So, developing that program and having confidence in it allowed us to design, with particular emphasis the way we wanted it, with those magnificent workshops that we referred to earlier, to provide this opportunity and achieve those outcomes".

Summary

The former CEO showed concern over the cost of the technical college program due mainly to the need for purpose-built facilities and expensive capital equipment suitable for several different trades. The heavy cost was a possible factor in the demise of the college after government funding withdrawal. There was an initial

desire to create a program that was unique and to use state-of-the-art equipment in industry standard workshops. This was achieved, but the college program was very expensive as a result. The former CEO noted the many resources and the 'magnificent workshops'.

5.7.7 First level code 7: 'Lack of foresight'

An excerpt of the interview with the former GTO Manager highlighted his concern for the lack of foresight in implementing the program for the college. The following excerpt is the response to the ten interview questions which had relevance to the code 'lack of foresight':

Interview #5: *Former GTO Manager*

"We made a mistake of moving training management system halfway through the last year of operation, because we were trying to get a clearer picture of our training outcomes, and what ended up happening was we got this mix and mash of data and it didn't really serve the purpose we hoped to achieve. So we would have been better, probably, to have the trainers work on a training plan, and then just tick off the kids as they achieved each of their units. What we were trying to do is set up something a little bit more sophisticated and it probably defeated our purpose".

Summary

Given more time initially, a contingency plan could have been drawn to discuss ways in which the college could survive if funding was reduced by the Commonwealth Government. Additionally, decisions were made towards the end of operation of the college that were detrimental to the ongoing economic viability. The GTO Manager was aware of some shortcomings due to lack of foresight that may have hastened the demise of the college.

5.7.8 First level code 8: 'Perceived unsustainable benefits to staff'

An excerpt from the interview with the former GTO Manager highlights his concern for the level of benefits to the college staff. The following excerpt is the response to the ten interview questions which had relevance to the code 'Perceived unsustainable benefits to staff':

Interview #5: *Former GTO Manager*

"The whole staff had the 7 weeks' leave which was – I don't think it was a game breaker by any means but it certainly wasn't in the interests of the college…TAFE colleges, their administration staff do 6 weeks and their teaching staff have between 10 and 12 weeks holiday so it's acceptable in the education field to have those sorts of breaks, but not in being able to take your holidays in a situation when you have students in a school and then the college had to bring people in to replace you so in effect the college was paying three times – so they were paying you, plus they were paying your holidays and they were replacing you".

Summary

In order to recruit staff for the college initially, various incentives were offered, one of which was the allowance for staff to enjoy seven weeks holiday in the year. Four of these weeks had fixed dates and staff were able to take the other three weeks at any time. Although the pay scale for staff was slightly lower than that of school teachers, it meant that staff were able to take holidays during term-time. This necessitated relief staff to be employed to replace them in most cases. The former GTO considered this benefit offered to staff was too generous, and jeopardised the on-going economic viability of the college.

5.7.9 First level code 9: 'Problems with teaching program'

An excerpt from the interview with the former WACE Curriculum Manager highlights a problem this interviewee found with the teaching program. Although it was an isolated case, it was considered a problem with the level of confidence in the teaching program. The following excerpt is the response to the ten interview questions which had relevance to the code 'problems with teaching program':

Interview #2: *Former WACE Curriculum Manager*

"The weakest area was Workplace Learning. And that wasn't because we didn't have the right teachers or anything. With Workplace Learning we didn't actually have a teacher allocated to us. Because we were short staffed and trying to run on the smell of an oily rag, I was doing it – across 2 campuses to 250 kids! And it all went well – what happened was, there was one change in the curriculum from 2011

to 2012 and I missed it! So I missed one of the grade descriptors, so when they came in and they did moderation my moderation , my grading, was fine for 2011, but when it came to 2012 I'd missed that grading so they just got 'C's, and most of them were 'C's anyway".

Summary

The teaching program was generally highly regarded, but one interviewee felt that it was an area where some improvement could be made, so it is included as a possible contributor to the demise of the college. The area involved a subject called 'Workplace Learning', and it was an essential part of the college program. Mistakes were made in meeting deadlines for this subject. The former WACE Curriculum manager explained that this was due to their not having an allocated teacher for this subject which could be referred back to a lack of forward planning.

5.7.10 First level code 10: 'Perceived lack of professionalism and some low teaching standards'

Excerpts from interviews follow, which highlight concern with professionalism and teaching standard. The following excerpts are the responses to the ten interview questions which had relevance to the code 'Perceived lack of professionalism and some low teaching standards':

Interview #1: *Former CEO*

"...I think that their professionalism – maybe not their professionalism but their competency wasn't quite where we needed it to be".

The former CEO would have formed this opinion on infrequent observations of some classes of students. While it may have been the case for trades instructors or WACE facilitators, it was not a general observation, but still worth noting.

Interview #3: *Former Head of Electrical Trades Training*

"In 6 months, these guys were better than the ones that had been in the system for 18 months, who did nothing but mucked around. We're pickin' up the pieces and having to teach em'. And you're saying: "Mate, you've passed this unit. Why don't you know anything?" And then when they tell you, you know why they know nothing. They were taught nothing and they had to do nothing, and they passed tests without

having any knowledge whatsoever. Why wasn't that picked up… why wasn't that dealt with along the road?"

This interviewee was engaged in the final years of operation of the college, and had a very clear idea of teaching the pre-apprentice electricians. Previous trade instructors had apparently a lower standard of teaching, and fell short of his expectations.

Summary

Once again, most interviewees were very complimentary concerning the professionalism of staff at the college. However, the former CEO questioned the professionalism and competence of one or two members of the staff in the two areas of study, Trade and WACE. The former head of electrical training also noted a problem with professionalism and teaching standard in one or two cases. This may have had a slight effect on the public perception of the college programme.

5.7.11 First level code 11: 'Staff tensions'

An analysis of the excerpt from the interview with the former CEO follows, which points to his concern with staff tensions between the two campuses of Maddington and Armadale. The following excerpt is the response to the ten interview questions which had relevance to the code 'staff tensions' within the college.

Interview #1: *Former CEO*

"...there was a competitive between the two campuses, but there was also a lot of tension between the two campuses, and I could never fully understand that, because we were all one team. So, those sorts of things you could see – in some ways, there were some great positives – but the tension part we had to consciously work on".

Summary

In an environment where the future seemed rather uncertain, it was quite understandable that some members of staff allowed their anxiety to overflow into their work. The campuses at Maddington and Armadale were responsible for training different trade groups and the management of each campus was sometimes slightly different. This also caused some tension. This was noted by the former CEO, who admitted that it was a problem he would have to "work on".

5.8 Consolidation of Themes for Research Question 3 – Negative Perceptions:

The twelve First Level codes noted from the responses to research question 3 (negative perceptions) and shown in Figure 6 were used to arrive at major and minor themes as shown in Appendix 3 and repeated here, with the 'major theme' highlighted:

Administration problems Partial failure of GTO	}	**Poor administration** **(Major Theme)**

While the partial failure of the GTO could be attributed to a number of factors, the researcher considered that a more efficient or experienced administration department could have improved the situation.

Problems with student behaviour	-	Problems with student behaviour (Minor Theme)
Problems with teaching program	-	Inadequate monitoring of program (Minor Theme)

Initial difficulty in selling concept to industry Difficulty in achieving Government Compliance Lack of foresight Costly program	}	Lack of forward planning (Minor Theme)

Forward planning was admittedly limited by the short time frame allowed by the Government to implement the Technical College program, but the difficulty in achieving Government Compliance should have been remedied very quickly and should never have been the case with better forward planning. In a similar way, liaison with Industry should have been a pre-requisite for the college to be established. The cost of the program should also have been properly calculated at the outset.

Perceived unsustainable benefits to staff	-	Generous benefits to staff (Minor Theme)

Some low teaching standards
Perceived lack of professionalism. } Problems with teaching standard (Minor Theme)

Staff tensions - Problems with staff reaction to lack of funding (Minor Theme)

5.9 Response to Research Question 3: Did the perceptions of former staff, students and administrators towards the now extinct model of Technical colleges formed by the Howard Government in 2005 have any bearing on the demise of the college?

As stated previously, this question is answered in two ways depending upon a positive or negative perception of staff. Where the response to the question was negative, it was assigned to the Anchor code 'Reason for Demise'. This section is concerned with positive perceptions. A number of initial codes reflected a positive perception, and the **'Anchor code'** for these was ***Reasons for Formation and Continuation*** **(Positive perceptions)**

Figure 5.4 summarises the number of times the chosen First Level codes were condensed from the interview responses:

Code number	**First Level Code**	Times stated
1	High degree of professionalism	6
2	Lower comparative dropout rate	2
3	Relevance of the program	4
4	High literacy and numeracy of students	3
5	Ideas for on-going viability	1
6	AQTF requirements met	1
7	Staff support for program	1
8	Private Funding	1

Figure 5.4: **Coded Interview responses from research question 3 – Positive Perceptions**

These codes were all derived from **positive** responses, so were assigned to the Anchor code: **'Reason for Formation and Continuation'**

5.9.1 First level code 1: 'High degree of professionalism'

The interviewees considered that the college staff had a high degree of professionalism and this was a positive aspect for on-going viability of the college. The excerpts are the responses to the ten interview questions which had relevance to the code 'High degree of professionalism':

Interview #1: *Former CEO*

"A great deal of professionalism and also empathy to the way we were doing the program and empathy with those who were taking the program".

"...we were certainly competitive in pay scales with mainstream education system, so that also allowed us to attract professional people".

In selecting staff for the facilitator and trade training positions, the selection process aimed at finding potential employees who exhibited a professional outlook and were prepared to be flexible in their approach to the syllabus. The pay scales offered were commensurate with this requirement.

Interview #2: *Former WACE Curriculum Manager*

"It depends on your definition of but if you're talking about how passionate were the staff in the actual concept of the college and what it was going to do for the students as well as our society and industry in particular I know everyone was fully on board with it".

"Our councillors were sensational – probably the best councillors I've seen out of school and we got the most work out of them compared to anywhere I've ever seen. Particularly once, after 2009, and we knew we were up against it, and to do the amount of work that they were doing was just incredible…And the teaching staff were too. I mean, they stepped out of their comfort zones…When I said we need to raise the standard of numeracy, we need to raise the standard of our science, physics, you and (Person named) stepped up…Nothing was too hard. It was good".

This interviewee spoke of the flexibility exhibited by the WACE teaching staff and councillors with whom he was involved. It was very important at the outset to create relevant materials for the students to study so that their WACE academic work and

their trade practice were aligned. This required a high degree of professionalism, which was noted by the interviewee.

Interview #5: *Former GTO Manager*

"I think we had in ATC a high degree of professionalism in the administration and the teaching staff".

"There was a high degree of professionalism because of the commitment among the staff".

The former GTO Manager was able to give a very positive response to the question, but his answer was more relevant for the academic staff with whom he was more familiar.

Summary

There were six quotes from interviewees regarding 'high degree of professionalism' which were considered relevant to the continuation of the operations of the college. The regard for teaching standard was closely aligned with their professionalism, and in general, the interviewees did not differentiate.

5.9.2 First level code 2: 'Lower comparative dropout rate'

Former staff considered the lower comparative dropout rate to be a positive aspect for the college. The excerpts are the responses to the ten interview questions which had relevance to the code 'lower comparative dropout rate'.

Interview #2: *Former WACE Curriculum Manager*

"We just provided that extra support (compared with a TAFE college) which meant that we had more people stay in the apprenticeship. You know there was a 50% drop-out in the normal apprentice field, we were having a 30% drop-out, so we were improving it by 20%".

The figures for dropout rate of students was an important statistic noted by this very experience interviewee. He had accumulated extensive knowledge of the education system in his career and the figure of '50% drop-out in the normal apprentice field' can be regarded as reasonably accurate.

Interview #4: *Former Board Chair*

"…number of dropouts was very low I think… When you look at the number of dropouts we had at the Australian Technical College, compared to the 42% or something of all the apprentices that signed up state-wide, in the first year that dropped out, ours was very, very small".

The former Chair had extensive knowledge of industry and apprentice' degrees of success. His figure of 42% drop-out rate agreed reasonably well with the previous interviewee.

Summary

Having a lower drop-out rate (the percentage of students that do not complete the course) is a distinct advantage for a college, especially when the on-going economic viability of the college is concerned. The former Board Chair compared the dropout rate for the college favourably against that in TAFE colleges state-wide. This sentiment was echoed by the former WACE Curriculum manager.

5.9.3 First level code 3: 'Relevance of the program'

Excerpts from the interviews follow, which highlight the considered view that the college program was relevant. The excerpts are the responses to the ten interview questions which had relevance to the code 'Relevance of the program':

Interview #1: *Former CEO*

"I was asked to sit on a steering committee by the Director General, the Department of Education to provide input into our State to provide vocational education and training in schools. If that doesn't talk to the relevance of the program, I don't know what does… from an educational standpoint I think that the program was extremely relevant".

This interviewee, who had been employed form the establishment of the college, played an instrumental role in formulating the college program. It was under his excellent guidance that the relevancy of the program was made paramount to all facilitators and trainers.

Interview #2: *Former WACE Curriculum Manager*

"Oh, extremely relevant….no other college did what we did to the standard that we did it".

As WACE Curriculum Manager, this interviewee ensured the relevancy of the program by relating assignment to the particular trade within the guidelines of the WACE syllabus.

Interview #3: *Former Head of Electrical Trades Training*

"I think it was very relevant…The theory training the kids got was second to none. They'd lost their rapport with industry, through the past and we were gradually correcting that".

This interviewee was a fairly late arrival at the college, and made a great deal of progress correcting his predecessor's work to assure the relevancy of the trade training for pre-apprentice electricians.

Interview #5: *Former GTO Manager*

"I think it was hugely relevant. I think it turned out in its time, wonderful young people into the trades. When I think back, seeing all those young people in there sort of – your 16 or 17 years, who otherwise wouldn't have had a trade future I think that did an outstanding job. And in a time when there was an enormous skill shortage as well, so we had no trouble placing kids from ATC with employers. Employers couldn't take enough of them".

The excellent reception by industry for the trainee apprentices the college produced was noted by this interviewee, with the conclusion being that the college program was certainly relevant.

Summary

The relevance of the program was attested to by four interviewees. WACE Facilitators were encouraged by the college to produce assignments relevant to the particular trade in line with Curriculum Council guidelines. It was stressed that the syllabus could be adapted to the needs of the trade, and all facilitators constructed assignments accordingly.

5.9.4 First level code 4: 'High literacy and numeracy of students'

An analysis of the excerpts from the interview with the former WACE Curriculum Manager highlights his confidence in the high level of literacy of the students after tuition. The excerpts are the responses to the ten interview questions which had relevance to the code 'High literacy and numeracy of students':

Interview #2: *Former WACE Curriculum Manager*

"We had some excellent kids, but you know, we also did push 'em when we changed that standard. So the standard was good. We definitely improved the literacy. The program started to become regular".

"…So the organisation itself was producing quality apprentices without a doubt. Far better numeracy and literacy but also with a bit of business acumen behind them…"

"The main strengths for me were high levels of literacy and numeracy, higher competence of the young person, going in, so when they got to the age of 17 they were a far more competent trades apprentice or trainee than someone coming straight out of school. So they had better skills entering into the workplace".

Summary

Literacy and numeracy are very important aspects of the curriculum, and the ATC took these aspects of their subjects very seriously. The former WACE curriculum manager mentioned this aspect several times during interview questions. There is no doubt that the students at the college had a very good level of literacy and numeracy as a result of the efforts made in these areas.

5.9.5 First level code 5: 'Ideas for on-going viability'

While the question of ideas for on-going viability was not specifically asked, the former GTO Manager, who had been engaged to set up a GTO to try to fill the shortfall in funding after 2009, considered a number of other ideas in which he was involved. These were revealed in his interview, excerpts of which follow. The excerpts are the responses to the ten interview questions which had relevance to the code 'ideas for on-going viability':

Interview #5: *Former GTO Manager*

"…one of the things that we toyed with early on and I said well, why don't we try and sell training on the open market which is all very well because we had a wonderful facility and we had some very good, well-skilled staff, but we had no room in our timetable to be able to do that because the students that we were having in, they were full-time students, they were there for 30 hours a week. And so, outside of those hours, I'm sure the college was reasonably available but the staff by that stage were tired – they were working full time work so the administration and the bringing in of external work was very problematic".

"We did do some things though, one of the strategies quite late in the day was – the idea of bringing in students from other schools for them to do their Cert II as a traineeship did build the numbers while the cohort of full-time students at the ATC was dwindling we at least had the support of the general schools in our area. And so we had a traineeship program in carpentry, metals and automotive, and it was very good. It was quite successful. We had small numbers of cabinetmakers but it was the only thing that was going to grow the numbers to a meaningful level. And then we might have been looking more like a trade training centre and shared and owned by the State, by the State schools rather than this very tiny stand-alone entity".

"Fee-for-service sounded like a good idea…but there's not many organisations that are like that, who are doing successfully. The TAFE colleges don't (offer) fee for service. There are some private RTOs that do fee for service but they are structured very differently to how the ATC was. They're structured on a very lean model where they only bring in staff when they're required, whereas at the ATC they're all full-time staff so you can't – you couldn't have done fee for service".

Summary

After the cessation of government funding, management and staff were encouraged to produce ideas for on-going economic viability. Of the ideas promulgated, the sale of training on the open market, encouragement of school students from the local area to train at the college for Certificate II and "Fee for service" were ideas that the former GTO manager mentioned during his interview. The first of these being involved with evening classes was not viable due to the staff not being readily

available after a full working day. TAFE colleges use casual or part-time staff to carry out this type of training. The second idea in which school students were able to study for WACE Certificate II was moderately successful since every student would attract funding from the State government. "Fee-for-service" was an area in which the college could not be involved due to its structure.

5.9.6 First level code 6: 'AQTF requirements met'

The Australian Quality Training Framework (AQTF) was a requirement with which it was mandatory for the college to comply under the Australian Technical Colleges Act. The only interviewee that made mention of this in his interview was the former CEO of the college. The excerpts are the responses to the ten interview questions which had relevance to the code 'AQTF requirements met':

Interview #1: *Former CEO*

"... there was a lot of Government... a lot of compliance requirements with both the school side and the RTO side. So we had to comply with the AQTF standards, we had to comply with the teaching standards, as a registered school".

"We were able just to develop that in our own way, which is the program...developing the program, providing that we met those AQTF requirements and those school requirements. The way in which we delivered the program was our choice".

Summary

The former CEO was adamant that the very important AQTF requirements were met by the college, so this was definitely a reason for continuation should funding be replaced or restored for the college.

5.9.7 First level code 7: 'Staff support for program'

Excerpts from the interviews with former staff follows, which highlight the first level code 'staff support for program':

Interview #1: *Former CEO*

"We carried the program, we carried the people, in terms of our staff, through into the next phase anyway. So I'd say those four things: the program; the infrastructure; ***the people****; and I guess the funding behind it".*

The former CEO mentioned that "the people" were certainly a strength of the program – they supported it by their commitment and professionalism.

Interview #2: *Former WACE Curriculum Manager*

"…but if you're talking about ***how passionate were the staff*** *in the actual concept of the college and what it was going to do for the students as well as our society, you know, and industry in particular I know everyone was fully on board with it really.*"

The interviewee agreed that the staff were definitely in support of the college program – they were 'passionate' and 'fully on board with it'.

Interview #5: *Former GTO Manager*

"my experience of when I worked at the ATC was that the ***staff that I worked with were very committed to the model****, and they loved the concept of blending the academic with the technical…"*

The former GTO Manager mentions the 'commitment' of the staff.

Summary

There was no doubt that the staff of the college had a vested interest in supporting the college program. However, the former CEO considered the inherent staff support one of the strengths of the college. This sentiment was echoed by the former WACE Curriculum Manager and the former GTO Manager. It was in the interest of all the staff to be in support of the college program, and this was facilitated by the desire of all the staff to see it succeed.

5.9.8 First level code 8: 'Private Funding'

Private funding was a 'last resort' to try to keep the college in operation, although it created further problems when other funding sources made it difficult to repay the loans. The excerpts of the interview is the responses to the ten interview questions which had relevance to the code 'Private Funding':

Interview #1: *Former CEO*

"… we landed at the option…we sought, capital from the banks. The four big ones weren't interested. We ended up going to the community bank – Bendigo, and they supported us, so we were able to take out a loan on that facility".

Summary

While it would appear that private funding was really the only option for the college to continue, and this was welcomed by the former CEO, the former WACE Curriculum manager commented that, although necessary, it was not a very good idea for the college: "…you know, we had to borrow ten million from Bendigo Bank - if we didn't have to do that, financially we'd have been OK." (See section 6.4.1). The code has been included as a positive aspect, although it was really a 'double edged sword'.

5.10 Consolidation of Themes for Research Question 3 – Positive Perceptions:

The eight First Level codes noted from the responses to research question 3 (positive perceptions) and shown in Figure 7 were used to arrive at major and minor themes as shown in Appendix 3 and repeated here, with the 'major theme' highlighted:

High degree of professionalism	**Perceived high degree of professionalism seen as no bearing on closure - Major Theme**
Relevance of the program Staff support for program Ideas for on-going viability AQTF requirements met	Program considered relevant and well supported - Minor Theme

Staff supported the program, including assistance with ideas for on-going viability. The Australian Quality Training Framework requirement were met, partly with the assistance of the staff and the program was considered relevant. The researcher considered all these first level codes could be amalgamated under 'Program considered relevant and well supported'.

High literacy and numeracy of students Lower comparative dropout rate	High literacy level and low comparative dropout rate for students - Minor Theme
Private Funding	Supply of private funding had no bearing on closure - Minor Theme

5.11 Chapter Summary

This chapter has discussed the qualitative data found from interviews with former staff and students of the college. The interview transcripts were coded into 'first level' coding and 'second level' coding to arrive at major and minor themes.

The interview questions were useful in isolating common beliefs expressed by the interviewees as to why the Australian Trades College, Perth South, had been unable to continue its operation and to reveal the efforts made 'behind the scenes' to formulate ideas for allowing the college to continue its operation. These 'beliefs' or opinions were analysed to establish certain 'codes' in the interview transcripts. Key words such as 'professionalism', 'administration', 'funding' and 'different' became the basis of codes which were then assigned to each Research Question. For example 'different' was a description used by several interviewees to describe the 'Unique College Program', and because of the strength of this belief, it was deemed to be an important reason for establishment and continuation of the college.

The interview questions also guided the interviewees in their opinions as to why the college could not continue. 'Funding' and 'poor administration' were terms used most often by the participants and these codes constituted possible reasons for the demise of the college.

The responses by the interview participants to the question concerning 'perceptions' of former staff, was found to support both the reason for continuation and the reason for demise, depending upon whether there were positive or negative perceptions and this was made clear in the chapter.

For each research question a table containing the first level coding was shown displayed in order of frequency. The derivation of second level coding including

major and minor themes, was shown in a summary list at the end of each section concerning the coded interview question. The ‘major themes’ were highlighted in the list.

The following chapter will discuss these results and present details of the conclusions derived from the study.

CHAPTER 6

Approaches to Technical Education

6.1 Overview of the chapter

This chapter includes an investigation of the approaches of a number of overseas governments to technical education compared with that in Australia, in an attempt to answer the final research question:

Research Question 4: "Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges?"

The countries chosen in Europe (section 6.2) were Germany, Switzerland and the United Kingdom. In Asia (section 6.3) the countries studied were China, Hong Kong, Singapore and India. Finally the study of North America includes the United States and Canada in section 6.4 and 6.5 respectively. For each country the topics of funding, approach, participation and future direction were discussed. Attitudes to social class in technical education (Section 6.6) was discussed followed by a review of the four topics listed and compared with those in Australia. Section 6.7 analyses the only interview response concerning the approach towards technical education in other countries.

A number of factors are responsible for the demise of the Australian Trades College Perth South, and some of these could be attributed to the way in which Vocational Education and Training (VET) is handled by the State and Commonwealth Governments. It is hoped that by comparing our system with those of other countries, a number of improvements could be envisaged.

It is important to note that there is a vast amount of general literature concerning VET, both in Australia and elsewhere. This includes work by Goozee (2001) concerning the TAFE system, which has been replaced by the more general term 'VET', Fooks (1994) concerning the regard for VET education in Australia compared with the academic stream, Murray-Smith (1965) which gave a very comprehensive history of Technical Education leading to VET, OECD reports from every country including Australia concerning VET, and UNESCO-UNEVOC reports

concerning all levels of education throughout the world. With regard to this study several factors have emerged from which comparisons can be made. These factors within VET to be examined include attitude (social standing), funding, participation and future directions for the VET system in each country involved. The over-arching concern is with approach, however, since participation, funding and future direction is dependent upon that factor.

- The approach of the various governments throughout the world to the status of VET compared with academic streams is sometimes a reflection of the attitude of the public, so attitudes in both areas would need to be taken into consideration.
- Participation in VET and other technical education streams may be a consequence of attitudes, but needs to be examined independently, since even if the public has a lower regard for VET it could be advantageous for students if there is a greater prospect of employment in the long term.
- Funding by the Commonwealth Liberal government was fundamental to the on-going support of the Australian Technical College network, and the withdrawal of those funds by the Commonwealth Labor government was one of the main reasons for its demise.
- Examination of future directions in other countries could be advantageous in establishing a bipartisan approach to VET in Australia.

6.2 Europe

6.2.1 Germany

Approach: King, Moore and Mundy (1974) indicated that Germany was a solidly traditional society. An educational path made early in life could relegate one permanently to a low-level occupation and a low standard of living. King et al; (1974) were undecided as to whether the two sharply distinct forms of education - vocational and general - which had been established then for over 50 years, were perpetuating equally sharp class distinctions, or whether they merely reflected society (p. 71) .

In more recent times, Germany has formalised the 'Dual VET' system (Dyer, 1977, p. 61). There is a very positive approach to VET, with the company workplace and

the vocational school, which is attended part-time, being the foundations of the dual system. The practical training is provided by the company and the supplementary theoretical instruction is provided by the vocational school. (Mehrotra, Raman, Kalaiyarasan, & Kumra, 2014).

Participation: Depending upon the occupation chosen, a vocational programme that lasts up to 3.5 years is a popular option for over 60% of German students. The dual system in this country allows them to embark upon academic training at a later date. (UNESCO-UNEVOC, 2018a).

Funding: There is a total of about €40 billion used to fund the TVET system in Germany, and about 70% of this is derived from private industry. While government funding is sufficient at various geographic levels for equipment, teachers' salaries and infrastructure, internal company training in which individual companies employ students-trainees who have enrolled in the TVET system reflects the major investment from private industry. These students therefore benefit from a mix of practical and theoretical learning. (Pucket, Davidson, & Lee, 2012).

Future Directions: In Germany a highly skilled labour force is provided by numerous institutions including polytechnics, called Fachhochschulen (literally translated is 'subject high schools'), vocational academies, and technical trade schools. Many other countries in Europe and Asia have engaged in rapid expansion of their Technical College networks, and like Germany, Technical College degrees now easily outnumber academic degrees. (National Science Board, 1996)

While companies are no longer providing apprenticeships, Grollman (2007, p. 431) argues that due to new policy directions "an intensified integration of apprenticeship training into productive work practices" will have the effect of decreasing both direct and indirect costs to companies while improving quality.

Regard for Technical Training: Reinforced by the effects of the Global Financial Crisis (GFC) in 2008 the relatively high participation rate and the degree of investment in technical college training (Pucket et. al., 2012) indicates that there is a very high regard for this level of education in Germany. Although this was not always the case, the realisation that the possibilities of secure and long-lasting

employment following the shock of the GFC may have resulted in the change shown (UNESCO-UNEVOC, 2018a).

6.2.2 Switzerland

The population of Switzerland numbers approximately eight million and they occupy the 26 states in the country, called cantons. Around 25% of the Swiss students are native to this country which is the world's oldest direct democracy. The vocational education and training system has been modernised over the last two decades and it has thus become an international leader in youth education as well as a world economic leader (Hoffman & Schwartz, 2015).

Approach: As noted by Way (2012), the apprenticeship scheme in Switzerland consistently produces young employees with some of the highest skills. The country's employers see youth unemployment as potentially dangerous, so train more apprentices from school leavers than they need themselves, those that they don't need after training are regarded then to have a very high chance of employment. Because of this positive approach, companies are willing to sign off apprentices from other companies.

Participation: In Switzerland, despite free University education, students have embraced the concept of vocational education and training (VET), which combines practical training at a host company and academic training at a VET school. The main advantage to students is the shorter path to full time employment. Approximately 65% of 15 and 16-year-old students, after nine years of obligatory schooling choose to complete their education in the VET system. There is a very low 3% unemployment rate with 58,000 Swiss companies providing VET employment for 80,000 students (Bachmann, 2012).

Funding: Switzerland has a federal structure made up of three different political levels. These are the 'Confederation' (or the Swiss Confederation), the cantons and the communes. An alliance between the business sector, Confederation and cantons are responsible for funding the Vocational Education and Training and Professional Education and Training (VET/PET). 75% of the public sector costs are met by the cantons that are responsible for implementing VET/PET. The other 25% of the VET/PET costs are covered by the Confederation, under the Vocational and

Professional Education and Training Act, VPETA. Lump-sum payments are generally made to the cantons from the Confederation, who also fund innovation projects and other services which are in the public interest. According to Sustainable Europe Research Institute (SERI) cost accounting, the cantons spent A$4700 million on vocational and professional education and training as a whole in 2010 (Eurydice Network, 2018).

Future Directions: The Swiss VET system (now known as 'VPET' to encompass professional training) is recognised as the 'Gold Standard' of VET systems throughout the world and the future direction has been set to continue this trend. The economy of Switzerland is based on this VPET system which is a partnership between the public and private sectors. While apprentices are paid for by the companies, the government funds the schools while private associations provide student mentors and job profiles. With regard to students, while around 5% go directly to work, 25% opt for an academic path and after compulsory schooling about 70% move into an apprenticeship (Hoffman & Schwartz, 2015).

In June 2018 the Swiss Agency for Development and Cooperation (SDC) hosted the 3rd International Congress on Vocational and Professional Education and Training in Winterthur. Mrs Ambassador Ruth Huber explained that "SDC strongly believed in VET as a main precondition for economic and social development" and was "therefore committed to increase its education activities by 50% over the period of four years between 2017 – 2020".

Regard for Technical Training: The Swiss government appears to have an extremely positive approach to technical/VET education and has set a standard which many countries, including Australia could easily emulate (Way, 2012). Major participation with industry, high levels of funding, a government commitment to VET education and an abhorance of unemployment has seen very healthy and enviable participation rates in technical education (Swiss Agency for Development and Cooperation, 2018), (Bachmann, 2012).

6.2.3 United Kingdom

There have been a number of very comprehensive reports, mostly critical, of the VET system in the UK. The general nature of the criticism is that the system in the UK compares unfavourably with that in countries such as Australia.

Approach: In recent years there has been a lot of confusion arising from the growing similarities between the technical education sector, the vocational education sector and the academic sector (universities). A report by Keating (2009, p. 22) concluded that the UK was using a 'mixed model' VET system in which there were 'unresolved tensions' between academic and vocational qualifications. Some courses, for which students sat a 'GCSE' examination, were in direct competition with 'vocational' qualifications, and the latter became de-valued as a result. Under the 'Post 16 Skills Plan' which was released in 2016, students would feel no disadvantage in choosing a technical career over one of academic nature. The plan also emphasised the essential requirement for both paths to include a high level of literacy and numeracy skills, the latter being gained without the necessity of calculators (Department for Business Innovation Skills and Education Great Britain, 2016).

Participation: Over the last decade there has been a considerable increase in participation in VET courses in the United Kingdom. The apprenticeship levy introduced in May 2017 has resulted in a far higher apprenticeship participation according to Powell (2018), rising from 225,000 in 2009 to 495,000 in 2016 (p. 8), while the total numbers (including adult apprentices) was 420,000 in 2009 rising to 850,000 in 2016 (p. 18) .

Funding: Since July 2016 the Department for Education has overall responsibility for all elements of education, children's services and skills. An Apprenticeship Delivery Board which includes representatives from private industry and the banks, was established in 2015 and is in charge of many aspects of apprentice training and employment.

In the United Kingdom, since April 2017, the employer's annual pay bill has exceeded £3 million, where 0.5% was a government-imposed apprenticeship levy. This was mainly to redress the underinvestment in apprenticeship training. In March 2016 a GBP 10 million fund (in two phases) was announced to boost the number of

degree apprenticeships places available. The Higher Education Funding Council for England (HEFCE) allocates GBP 8.5 million over two years of the GBP 10 million fund degree apprenticeship development funding to support new degree apprenticeships. The remaining GBP 1.5 million is allocated by the education and skills funding agency (ESFA) over the two-year period to improve awareness, training of teachers and for school materials and ambassadors (European Centre for the Development of Vocational Training, 2018, p. 8).

Future Directions: In 2016 it was proposed under the 'Post-16 Skills Plan' there was to be a clear-cut approach to further education that would clarify the paths proposed by school leavers. Establishment of University Technical Colleges (UTCs) is a significant new development. Due to a partnership approach which involves the Baker Dearing Educational Trust (BDT), the Department for Education (DfE), Universities, local employers and some Further Education (FE) colleges these UTC colleges are able to cater for 14-19 year olds. In spring 2017 the government announced a GBP 170 million investment to establish institutes of technology in every English region, to deliver higher level STEM skills and meet the needs of employers in local areas (European Centre for the Development of Vocational Training, 2018, pp. 17-18).

Regard for Technical Training: The UK government now has a very high regard for VET and technical education in general, and has taken huge steps to redress the imbalance between that sector and traditional academic education. From a position in the beginning of the 21st century when it clearly lagged behind other countries including Australia, it is now taking a leading role in the technical education and training sector (Department for Business Innovation Skills and Education Great Britain, 2016).

6.3 Asia

6.3.1 China

Despite the global financial crisis (GFC) which occurred between 2007 and 2009, while growth has slowed, the Chinese economy has remained robust with a growth of 8.9% per year – a small decrease from the 11% average growth to 2008 (World Bank, 2009). The Human Development Index (HDI), which is one measure of the

prosperity of a country, improved by nearly 50% over the years 1978 to 2005. This has been reflected in a dramatic improvement in living conditions and growth in income that has allowed many people to rise above severe deprivation to a state of being moderately well-off (UN system in China and Ministry of Foreign Affairs of P.R. of China, 2008). Regarding education, there has been universal primary and lower secondary enrolment in this country with a high transition rate to upper secondary education. There has also been a steep rise in the participation rate at tertiary level (Kuczera & Field, 2010).

There are five categories of institutions that provide technical and vocational education at tertiary level in China. These include "technical institutes, technical colleges which are the main body for tertiary technical and vocational education, 5-year tertiary vocational classes run by specialized secondary schools other than Senior High Vocational Schools (SHVS), vocational education provided by some regular and/or higher education institutions, and the institutions reorganized from regular specialized secondary schools" (Rongguang, 2000, p. 62).

Approach: There are millions of low-skill workers who are finding it increasingly difficult to find employment. The Government has recently rapidly developed vocational education especially in rural areas, where technical education has traditionally been neglected for these low-skilled workers (Rongguang, 2000, p. 62).

According to McGregor (2017) there is a cultural mind-set in China that regards a trade as a 'lowly occupation' and would prefer children to attend University. Factories are fast closing in China and moving to other areas including Indonesia and India, where the labour costs are lower. This could prove disastrous for China's economy.

Participation: In recent years there has been a steep increase in the participation rate at tertiary level education and a high transition rate to upper secondary following universal primary and secondary enrolment in China. Approximately 74% of students continue to upper secondary education following compulsory education. There is a vocational and a 'general' track, the latter requiring better results in a national examination (Kuczera & Field, 2010). Vocational schools in China now

number 12,300, annually recruiting 9.3 million students with a total student population of 27 million (Liu, 2017).

Funding: The main sources of funding for VET are from the Government (40%) and from Student tuition fees (32%). Some of the VET training carried out in schools is firm-specific, and there is concern that companies will simply use this type of training rather than being required to train new employees, so overall training would not increase. In the OECD report on VET in China, there is a recommendation that there would be a number of advantages to workplace training together with other forms of vocational learning, and these include a strong learning environment, a productive contribution from the trainees and "a two-way exchange of information to improve recruitment" (Kuczera & Field, 2010, p. 20).

Future Directions: While it can be argued that China is assuming an increasingly major role on the World stage, it still has a long way to go regarding its promotion of VET. A number of challenges in this regard were identified by the OECD. These included insufficient cooperation between TVET institutions and employers, lack of financial resources and a lack of planning in line with labour-market requirements (UNESCO-UNEVOC, 2016).

China's expenditure on education in general is one of the lowest of all OECD countries, at around 2.3% of GDP, and there are wide discrepancies between urban and rural areas for technical education. These discrepancies are in access to colleges, fees and resources. The OECD has strongly recommended that Workplace Training be increased in the VET system, with employers assuming a more prominent role (Kuczera & Field, 2010, p. 18).

Regard for Technical Training: In a similar way in which technical training was viewed in Australia until recently, development of technical education in China has been obstructed by a traditional mind-set that put an academic career on a higher status level than a trade and this regard has been slow to change (McGregor, 2017).

6.3.2 Hong Kong

Under its 'one country, two systems' formula, China had promised that Hong Kong would retain a high degree of autonomy for the next 50 years, but recent events have shown that this may not be the case. Beginning with a protest against a bill to introduce compulsory deportation to China and rapidly becoming a protest in general concerning the rigid and growing control by the People's Republic of China, Hong Kong is in chaos due to on-going disruptive and increasingly violent protests. Brian Wong, in The Diplomat in October 2019, spoke of "the intellectual dangers of monolithic internationalism", stating the possibility of various hidden agendas concerning the disruptions (Wong, 2019). At this time, however, Hong Kong is regarded as a Special Administrative Region (SAR) of China in which the Hong Kong Vocational Training Council (VTC) is the main TVET policy-making and development institution. Core strategies to shape and direct growth of TVET are articulated by the third eight-year Strategic Plan (2015/16-2022/23) (UNESCO-UNEVOC, 2016).

Approach: A great amount of effort is being used to overcome the mindset that vocational education is a 'blue-collar' profession, only necessary for those who are unable to achieve academic success leading to University entry. According to a poll conducted in 2017 by the South China Morning Post, four out of five Hong Kong residents regarded Vocational Education and Training as being inferior to University education (Ng, 2017). Mr Lau Ming-Wai of the Bauhinia Foundation argued that Hong Kong officials had a role to play in rebranding the image of certain traditional jobs, such as working as a locksmith or plumber, to help change perceptions in the city (Ming-wai, 2017).

Participation: By the end of 2010, the Hong Kong government had set a target of 60% of senior school leavers to be able to access post-secondary education. This was to try to manage the anticipated manpower demand of the development of a 'knowledge-based economy'. The Vocational Training Council (VTC had been established by the Hong Kong government in 1982 and from modest beginnings with only a few campuses, this has now grown since 2000 to over 14 locations. These offer a number of specialised programs including a culinary academy, maritime

studies and an international hotel school. The attendance numbers are quite impressive, with about 5000 apprentices, 50,000 full-time and 250,000 part-time students (Noonan, 2017).

Funding: China invested HK$477 billion in vocational education in 2016, HK$86 billion more than it spent in 2012 – or an average annual rise of 5.5 per cent (Chiu, 2017). As an incentive to continuing education and reducing the drop-out rate for 15 to 18 year old students, full-time vocational courses were provided by the Hong Kong government from 2008. In addition to this the Education Bureau (EDB) provides the funding for a financial assistance scheme which has been set up to assist low-income adults in taking a number of evening adult education courses. While these courses will allow adult students to receive the equivalent of a secondary education, other courses are available from various private institutes and universities (Center on International Education Benchmarking, 2018b).

Future Directions: Yau (2017) notes that the Vocational Training Council in Hong Kong (VTC) provides vocational and professional education and training for the development of Hong Kong and the region to make it globally competitive. There is a huge emphasis on creating "a generation of professionals conversant not only with trade skills but also soft skills (that is, people skills)". This merging of vocational and education skills is referred to as 'vocationalisation', and is seen as a way to provide students with "adaptable and transferable occupational skills, rather than job-specific skills" (Pavlova & Maclean, 2013, p. 63)

Regard for Technical Training: Despite apparent generous funding for technical training in Hong Kong, it is doubtful whether the regard for that sector would be very different from that of mainland China, since the source of funding for technical education originates in China (Chiu, 2017). The autonomy that Hong Kong enjoys with the 'one country, two systems' of government will disappear when Hong Kong reverts to full Chinese rule in 2047. In 2012 Hong Kong adopted the Chinese model of secondary education of three years junior with university education being extended from three years to four (Forestier, 2018).

6.3.3 Singapore

Unlike China and Hong Kong, where VET is carried out as an adjunct to secondary schooling, Singapore is creating purpose-built training centres specifically for vocational education (Tucker, 2012, pp. 26-27). Noonan (2017) in a report for the Mandarin newspaper in Singapore noted that "Singapore has transformed formerly dilapidated Institutes of Technical Education (ITE) into three major regional institutes that have been effectively rebuilt as major world-class education and training facilities with a strong focus on future skills (including sustainability), new technologies and innovation".

Approach: Singapore has not suffered the problems of ancient culture as restrictively as China and Hong Kong, and has made astounding progress since World War II in many areas of the economy (Tucker, 2012, p. 3). Yeo (2017) notes that regarding education, among residents over 25 years of age there is 96.7% literacy and 69.5% have secondary or higher qualifications. A Vocational and Industrial Training Board was formed in 1979-80 and an Institute of Technical Education was created in 1996. There appears to be no evidence of a cultural or attitudinal divide between those seeking a university education, and those embarking on a path towards a vocational qualification or apprenticeship.

Participation: After students have completed compulsory education in Singapore approximately 25 percent of them enrol in two-year junior colleges. There is a path from these colleges to university. There are five polytechnics in Singapore and these attract around 40 percent of the cohort, while approximately 25 percent enrol at the Institute of Technical Education (ITE). These figures amount to an impressive 65 percent that are able to pursue courses in some form of Voluntary Education and Training. About 25 percent of the cohort leaving compulsory education enrols in two-year junior colleges, the primary route to university in Singapore. Thus, a total of about 65% pursue some form of VET. It has been found that around half of those students who later leave the ITE will eventually return to school and to polytechnics for a diploma or transition to university (Tucker, 2012, p. 36).

Funding: A 'Skills Development Fund' is resourced by a 1% levy on the monthly remuneration of lower-wage workers. This fund uses a reimbursement mechanism,

but does not limit the amount of incentives that a company can obtain to their levy contribution (Palmer, 2016).

Future Directions As in other parts of Asia, VET was for a very long time viewed unfavourably compared with more academic educational paths. Tucker (2012) posits this as the reason for Singapore to commit a very large investment of financial resources to "rebrand" vocational education as a valued and respected option and it is on-going. Singapore had the idea of a "factory school" which enabled the country to train its workforce using state of the art equipment for instruction while keeping close ties with business (p. 41).

Regard for Technical Training: There now appears to be a high regard for technical education in Singapore. Evidence of this is seen in the amount of investment and thought put into creating 'purpose-built' facilities seemingly similar to those enjoyed by the Australian Technical College students in Perth (Tucker, 2012, pp. 26-27).

6.3.4 India

In India, as in many other countries, students may choose an academic path or a path leading to a vocation. There is also another path in which students can attend an Engineering College or pursue a career as a Technician following 'vocational secondary' school and a 'Polytechnics 3 years diploma'. To become a Craftsmen following vocational secondary school, they need to obtain an Industrial Training Institute (ITI) 1-2 year craftsman certificate offered by the Director General of Employment and Training (DGE&T) and a 2-4 year apprenticeship certificate (Mehrotra et al., 2014, p. 38).

Approach: India is on the brink of becoming an economic powerhouse, but advancement is hampered by illiteracy and poverty. Majumdar (2008) reported that 25% of India's 1.2 billion population being illiterate, and this amounts to 1 in 2 of the World's population. 300 million people in India live below the poverty line, and few of those have ever had the opportunity to enter the educational system, and certainly not beyond the primary level (p. 13).

The predominant lack of education in India indicates that the regard for VET training is therefore only dictated by the possibility of gainful and remunerative employment. The society's attitude concerning educational programmes must also be considered.

The ‘caste system’ in India has a profound influence on its culture and acceptance of the status of vocational education. It is regarded quite poorly as it is associated with manual activities. Studies have shown that there would have to be a profound change in the regard for manual labourers in the future for vocational training to be accepted by the population (Pilz, 2016).

Participation: Although school attendance at the primary level is at 94%, enrolment at secondary level only attracts around 50 percent of the students. This low participation rate is continued into the tertiary level, with only a 10% enrolment. These figures are a result of the very low literacy rate, and the country’s colonial legacy. Participation in VET colleges or a vocational path is very low as a consequence, and there are many problems that need to be overcome to improve the situation (Kingdon, 2007).

Funding: India is among the countries with the lowest proportion of trained youth in the world (UNESCO-UNEVOC, 2018b). Moreover, Vocational Education carried out in secondary schools (since the mid-1980s) has received very limited funding in recent times; it has remained non-aspirational, of poor quality and involves little industry collaboration. Companies who, in many other countries contribute to VET systems, regard this as a government responsibility in India (Mehrotra et al., 2014, p. 8). The World Bank, however, has provided $360 million for the Vocational Improvement Project (VTIP) with Directorate General of Employment and Training (DGE&T), over the period 2007-12, which includes the upgrade of 400 Industrial Training Institutes. In addition to this, the EU is providing a grant of $10.3 million over a 5-year period from 2011. This is to increase the capacity of DGE&T, the National Council for Vocational Training (NCVT) and the National Skills Development Corporation (NSDC) (Australian Education International, 2011).

Future Directions: According to a TVET Country Profile by UNEVOC in 2018, there were a number of discussions and recommendations were proposed to improve the somewhat dire situation of VET in India following their discussions. National standards in skilling would need to be promoted more vigorously by involving prospective employers, youth would need to be encouraged to accept and aspire to vocational education and training, and there should be pathways for skilled persons to enter an academic stream or further their VET studies. “Employability and

livelihood" of individuals would also need to be enhanced, as would the "quality and training infrastructure" as well as the quality of trainers. The demand and supply of skilled workers would need to be aligned with sectoral requirements as well as some attention to the skill requirements of geographically and socially disadvantaged people (UNESCO-UNEVOC, 2018b, p. 12).

Regard for Technical Training: Compared with that in Australia, India's VET system appears to be held in very low regard by the government, despite quite a large investment by the World Bank (Australian Education International, 2011). This is due to the anachronistic concern with 'caste' in which manual labour is regarded as not appropriate for higher castes (Pilz, 2016).

6.4 North America - USA

TVET (Technical Vocational Education and Training) is known in the United States as Career and Technical Education (CTE). According to a National Press Club Newsmaker program in 2015, the high student college debt has been a problem in the United States that has impeded progress in education and contributed to unfavourable unemployment rates. As an alternative to College for students, the US decided to adopt the Swiss vocational education model in which students are paid to learn. The Trump administration (and the Obama administration before it) has partnered with Switzerland to learn about its apprenticeship system—one of the most robust and successful in the world (Maurer, 2018).

Approach: There has been an attitude in the USA that vocational education and training was traditionally assumed to be a facility for the working class and considered to be of a lower standard than academic qualifications. In agreeing with this line of thinking, Jasper (2016, para 2) stated that "…vocational education is a scarlet letter…this stigma…pervades all levels of American society, including the government." He blames the American pre-occupation with a 'college education' for "exacerbating a country-wide shortage of machinists, welders, nurses, and other jobs CTE provides paths for." He states that at the time of writing there were six hundred thousand unfilled jobs in manufacturing alone.

Participation: Participation in vocational programs in the United States, as has already been stated, is subject to the prevailing attitude of the majority of its people.

It is felt in general that an academic path following high school would be more beneficial to securing well-paid employment. However, there is a slow acceptance that a vocational path is actually costing a lot less for students, and the resulting salary from employment is not so different from an academic path (Hess, 2017).

College education for many in the United States is financially unobtainable. To alleviate this situation, the state of California is investing US$200 million in vocational education. According to the National Center for Education Statistics, only 8 percent of undergraduates are enrolled in a vocational certificate program (National Center for Education Statistics, 2014). Hess (2017) has found that "In many regions, vocational programs have even declined in popularity. For instance, in 2000, 31 percent of community college students in California took vocational courses. Today, only 28 percent of students take these courses" (Para. 7).

CTE courses attract around 12.5 million high school and college students in the United States while the figures for 2009 indicate that about 500,000 participants registered for apprenticeship programs with the federal government. However, according to the Center for American Progress, those apprentices not registered amounted to over 500,000 (UNESCO-UNIVOC, 2014).

Funding: The total expenditure on education in the USA is 7% of GDP, which is one of the highest amounts in the world. TVET in the United States is mainly carried out through in-company training. Companies provide this training to their employees independent of government or educational connections. The American Society for Training and Development provided $154 billion in 2008, which is a larger investment than that provided through public schools and colleges. Most occupational training and certification for workers takes place within this business-based system.

All three levels of government: federal, state and local levels contribute to TVET. To support TVET, the states receive funds from the federal government. Federal TVET legislations are the responsibility of the Office of Vocational and Adult Education (OVAE) and it is mandated that the OVAE receives a plan from the states to describe how they will use the allocated federal funding. It is also mandatory for the local educational agencies to submit a plan to the states to indicate how their school

district will use the funds. Upon acceptance of the plan from the states, annual reports are required from each state regarding how the funds have been used with evaluation of their effectiveness for the programmes for which they are used (UNESCO-UNIVOC, 2014, p. 10).

Future Directions: Goldstein (2016) noted that President Trump appeared to be in favour of vocational education while on the campaign trail. He said, "Vocational training is a great thing" and lamented, "We don't do it anymore." He promised to "expand vocational and technical education" in his first 100 days in office (Goldstein, 2016b). It is difficult to predict future directions for the CTE system in the United States because President Trump has made some changes to the structure of education management and appointed a very conservative Secretary of Education. She advocates the use of 'school vouchers' for students in the lower socio-economic areas to allow them to attend private schools, directing funds away from the public school system. Her view of education appears to be rather anachronistic in that the emphasis is on an academic stream (Goldstein, 2016a).

Regard for Technical Training: It is very hard to assess the regard for technical training in the United States due to the mixed signals emanating from the heads of government. Until a stable form of leadership with a clear policy concerning technical education is achieved it can be assumed that this rather chaotic situation will continue (Goldstein, 2016b) (Goldstein, 2016a).

6.5 North America – Canada

Each one of the Canadian federation of ten provinces and three territories is responsible for its own education system. VET funding to the provinces is primarily supplied by the Provincial governments, while the government of Canada plays a relevant role by supporting provincial funding through federal transfers. The federal government also runs a national student loans programme and has the responsibility for the education of Canada's First Nation population. The Council of Ministers of Education of Canada (CMEC) coordinates the interests of the provincial and territorial ministers. The two main strands of post-secondary vocational education and training are apprenticeships and college programmes. Public funding is not available to the portion of VET at post-secondary level that takes place in the private

career college sector (Alvarez-Galvan, Field, Kuczera, Musset, & Windisch, 2015, pp. 9-10)

Approach: According to Taylor (2016) VET in Canada suffers from being ranked far below general education. She compares the systems in Sweden, Germany and Switzerland and considers the Canadian system far inferior as a result of this attitude. She notes that the aims of providing education and training that has labour-market value while also allowing for access to higher education has been very difficult for the policy-makers in North America. In supporting this argument, Alvarez-Galvan et al. (2015) indicate that apprenticeship is not always seen as appropriate regarding status for 'white-collar' workers, despite efforts made to extend apprenticeships to other areas by Canadian provincial governments (p. 21). A UNESCO-UNEVOC (2013) report does not support this view, noting that: "Canada considers technical and vocational education and training (TVET) essential for all residents to actively engage in the country's knowledge-based economy" (p. 5).

Participation: Across Canada, there were about 800,000 students enrolled in either apprenticeships or a college career, split almost equally between the two. There are 'Red Seal' trades, with which apprentices can practice their trade in all provinces and territories across Canada. Red Seal trades account for about 80% of all apprentices. While there is a significant number of apprenticeships in Canada, the number is not as significant as in some OECD countries, but despite the population of the United States being ten times that of Canada, the number of apprenticeships is quite similar. Comparing the number in Australia, despite the fact that the population is roughly 30 percent smaller than that of Canada, it has slightly more apprenticeships. Apprentice enrolments in Canada have roughly doubled over the last decade (to 2009) indicating that more up to date figures may show considerable improvement. (Alvarez-Galvan et al., 2015).

Funding: The Apprenticeship Incentive Grant and Apprenticeship Completion Grant are used by The Canadian government to promote apprenticeships. These are modest grants of CAN$1,000-$2,000, (US$770-$1,500) and available to registered apprentices. By the end of 2015 the Government of Canada had provided CAD$418M in apprenticeship grants to encourage Canadians to become skilled trades people. Businesses are given a tax credit that is equal to 10 percent of the

apprentice wage as an incentive to employ apprentices (Alvarez-Galvan et al., 2015, p. 20). In Ontario, the government announced the creation of 40,000 new learning opportunities for graduates, post-secondary students and k-12 school children in 2017. The government also funds a 'Career Kick-Start' incentive of nearly CAN$190 million (US$146 million) over three years (Center on International Education Benchmarking, 2018a).

Future Directions: Program Advisory Committees (PACs) have been created that inform business, industry and community partners which benefit public colleges and institutes for curriculum development. They ensure programmes are current and relevant to industry, business and society. In order to obtain provincial/territorial government funding for a new programme most institutes and colleges must have a PAC already in place (UNESCO-UNIVOC, 2013). In 2011 a new approach to address skills shortages was announced in Canada which was titled the Sectoral Initiatives Program (SIP). It was designed to make the learning system more responsive to industry needs and enable industry to more easily recruit and retain workers (Alvarez-Galvan et al., 2015).

Regard for Technical Training: It does appear that the Canadian government has a high regard for technical training judging by the introduced incentives in the last few years and increased funding for apprenticeships. However, when compared with the Australian system, the evidence is that there are fewer apprenticeships in Canada despite a larger population than Australia.(Alvarez-Galvan et al., 2015, p. 20).

6.6 Attitudes to social class in technical education

Much has been written concerning the so-called 'class distinction' that separates the 'working class' from the rest of society, but the concern in this study is whether this has had any effect upon the decisions made by government concerning the Australian Technical College (later re-named the Australian Trades College), Perth South. While there has been a great deal of literature concerning the early years of settlement in Australia and the formation of trades or technical colleges from their early beginnings as Mining Institutes, it does appear that attitudes to the status of Technical colleges has not really changed very much. This attitude appears to indicate that a technical education is more suited to a working class than middle or

upper classes. These labels for 'class' resulted from entrenched views in England at the time as a result of feudalism and royalty who set itself above the people on a social scale. The depth of this social class distinction is discussed and whether it is still as prevalent today as it was at the establishment of the colony in Australia and whether it has any bearing on decisions concerning technical colleges in modern Australia.

'Class' is probably a more significant factor in the development of Technical Colleges than many people in Australia would like to admit. It is an anachronistic throw-back of a system inherited from England and reinforced probably by the division between convicts and free settlers at the beginning of colonisation. It can be argued that Royle (1971, p. 305) was quite correct in his assessment of Mechanics' Institutes when he gathered considerable evidence from contemporary authorities and later historians, that the Institutes were "attended by persons of a higher rank than those for whom they were designed". The lack of attendance by the 'working class' did not appear to be a question of money, it was more evident that the Institutes were 'taken over' by local business men since "…the working classes, as virtually all agree, lacked the education that alone could guarantee responsibility" (Simon & Salt, 1966, p. 145).

Concerning class distinction, there were a number of statements made in this era. The Reverend Charles Price gave a lecture in 1850 at the Launceston Mechanical Institute, in which he strongly supported 'education of the labouring class'. Some of his statements seemed almost as if he had influenced George Orwell in writing his novel '1984':

> Trade, commerce, agriculture, the arts, the, professions, are urging the people forward in the march of improvement; and as they advance with a firm step they tread down the manacles of the slave, the relics of feudal oppression, the superstitions of ages dark and dreary, and they sing— " the people shall be free, the people shall be taught, the people shall rule" (Price, 1850, p. 14).

Woolley (1860) was quite critical of this class structure at the time:

> … we have also learnt that no class prospers in the depression of another—that the breaking down of social barriers is not loosening the foundations of order, nor the preaching of discontent (p. 6).

A very strong speech by F.W Roche, the Vice President of the Dalby School of Arts in Queensland and Mechanics' Institute in 1867, at their fourth annual general meeting condemned the fact that the Mechanical Institutes did not adequately cater for the working class: He finalised his speech by saying:

> "And now, ladies and gentlemen, those of you whom God has placed from infancy in prosperous circumstances, and who have received good educations, help those institutions along by every means in your power; endeavour to break down that barrier of class which, like a middle wall of partition, separates you from communion with your fellow-man; and show him, by your example, an object of imitation" (p. 7).

Federation saw the beginning of the 'White Australia' policy, in which non-white peoples were not allowed entry to Australia. Although it was said that Federation swept away the old class divisions inherited from England that existed up to the 1890s, it was apparent that discrimination simply took another and far more inhumane form. Indigenous peoples were not even counted in the Commonwealth Census, and were not allowed to vote.

Although the 'Public Instruction Act' of 1880 had introduced compulsory schooling in Australia, it only required students to attend school for 140 days a year, and in the 'working class', children were required to contribute their labour for the upkeep of the family. Payment of school fees was an added imposition to these families. 'Truancy' was quite common, and has been the case particularly amongst the indigenous community, to the present day. (Sherrington & Campbell, 2008).

The 'class distinction' of the nineteenth century has apparently been replaced, at least in Australia, by a class structure that is based on affordability. Some parents perceive that a 'better' education standard can be obtained for their children by sending them to a 'private' school, but the option is only open to those who can afford it (Wilkinson, 2004, p. vii). This has a flow-on effect for technical/vocational education, which is still not perceived as being as high in status as university

education, to which more affluent parents hope their children will aspire after a private school education. This is termed 'parity of esteem' and achieving parity has assumed an important part of education systems throughout the world (National Centre for Vocational Education and Research, 2016).

Throughout the history of technical college education in Australia, and probably stemming from the entrenched British views, it does appear that schools and universities have always assumed more importance. Technical education seems to have been the 'poor relation'. This view is shared by a number of authors including Goozee (2001) who gave an account of the variability of funding for the technical education system up to 1970 when it acquired its new name of TAFE. Goozee states that the sector "although fulfilling a critical role in providing postsecondary education and training for large numbers of people, was consistently under-valued and under-resourced." (p. 8). This led to an inconsistency in the development of the technical education sector.

Hermann (1976) agrees with this view: "*Lack of status*. The poor image which further education has in the eyes of at least part of the public and perhaps more importantly the poor image which administrators and teachers in further education believe it has is cause for serious concern." (p. 226).

According to a poll conducted by the Australian National University in October 2015, Australian society can be divided into five classes: upper, upper middle, middle, lower middle and working class. The latter make up a self-described 40% of the population, while the 'middle class' comprise 52%. The situation of 'class' in Australia is subtly different from that in England, where class is often inherited. It is easier for Australians to move from one class to another over a single generation, since money or economic situation is often the determining factor. When an Australian poll was conducted that considered economic, social and cultural capital factors, figures emerged that put the 'established working class' at 24%, the other classes being described as: "'established middle' (26%); 'mobile middle' (25%); 'emergent affluent' (11%); and 'established affluent' (14%)." Cultural capital included such activities as going to the opera or ballet for the 'established affluent' class. This put the 'established working class' as one of the largest groups (Australian National University, 2015, pp. 2-5).

A discussion involving class distinction is usually more emotive than informative, as many people believe in underlying nefarious motives by those in power. It is certainly true that in the nineteenth and early twentieth centuries there was definitely a desire to separate the 'haves' from the 'have nots' and this linked universities to the former group. The sad fact is that low income often relates to low self-esteem and an expectation to receive without giving. An extension of this argument is that this group is then imbued with what amounts to 'reverse snobbery' that prevents them from reaching their 'full potential'.

In a young country like Australia, trying to make an impression on the world, in the past it has been falsely assumed that a university-educated populace would promote the assumed values of the country, rather than the (assumed) lower standard and lower cognitive function of technical college students. A vast theoretical knowledge, while definitely useful in an academic career sometimes has a lesser practical use in nation-building. This argument is supported by Beddie (2014):

> "That the colleges of advanced education became cheap alternatives to universities had multiple causes, which were not only related to policy and funding but also to traits within the sector and broader community, including institutional snobbery, professional aspirations for higher credentials and the failure to sell the idea of 'advanced' education to the public" (p. 7) .

If working class students are able to attain a place at a university, there are a number of factors that may affect their academic performance. One of these is their ability to integrate into the university community. Oliver, Rodriguez and Mickelson, in a 1985 paper concerning social class difference and social integration, indicate that social integration is harder for working class students at university due to their not having a suitable role model at home in many cases (p. 9). Astin (1993) agrees with this argument, adding that the parents of students are often unable to provide informational and motivational support, not having been involved with that level of education themselves.

The inequalities in education were highlighted in an article for the University of Western Australia. Argy (2007) said that: "Governments in Australia spend less on education and active labour market programs such as training than a majority of

developed OECD countries and what is spent on education flows proportionally more to the more advantaged students" (Para. 14). Mr Argy was also very critical of the disparity between Government funding for universities and that for vocational education and training, leading to a decline in student numbers for the latter. There were other reasons he mentioned, but they all pointed to some lack of initiative by government.

Australia, like most other civilised countries, has a very strong anti-discrimination policy, and it does appear that the Federal Government is now directly investing in technical colleges and "offering Work Skill Vouchers" that should be of considerable assistance in redressing the social class barrier to technical and higher education often faced by 'working class' students. (Argy, 2007, p. Para 31)

6.7 Interview Response to Research question 4: Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges?

There was only one theme that emerged from the interviews:

'Australian apprentice training system superior to many overseas countries'

This initial coding for the interview response came only from one interviewee, the former Head of Electrical Trade Training. He had considerable experience with training overseas students and had spent some time in South Africa and Zimbabwe recruiting staff for work in Australia. He also recruited staff from the Philippines and Qatar following the successful conclusion of a very large electrical contract. He also had experience of training electricians from the United Kingdom, Germany and India. His opinion of most of these students was quite high, apart from those from the Philippines who were not trained on the United States Naval Base there. He spoke of the very poor theoretical base of some students, who were appeared to have been taught by a 'see and do', or 'look and learn' approach, particularly with students from Malaysia and Singapore. He spoke extensively of his experience in this area, including some favourable comparisons of the Australian system:

> *"Zimbabwe uses the English system, and in the English system the training is excellent. And those people from Zimbabwe, the gaps that they had to meet an Australian licencing requirement was quite small. We recruited quite a few*

people from Zimbabwe, we recruited quite a few from South Africa, and when we brought them to Australia, to get them over the line and train'em up so they could do their licence and test and get their licence, the actual gap training was quite small. Right? We recruited 135 people from the Philippines for Western Power. The gaps for them were huge."

He emphasised the fact that overseas workers had to be trained to the 'Australian Standards' in this way, and went on to say that

"I…went over to Qatar about 7, 8 times to help them set up the Australian training system, right? And interview and employ all their trainers – we had 135 trainers over there, from all over the World. Right? But when it come to the electrical we could only really employ trainers from Australia, England and places like that. And then we had to bring them up to Australian standards because we implemented the Australian National Training package over there and therefore they had to meet the Australian Training Qualification framework for us to be able to give the people over there, you know, the appropriate qualification at the end of their training….They've got good training systems in Scotland, in England, ah, Ireland, ah. Germany, and…even India, which surprised us."

To emphasise the point concerning trainees from the Philippines, he said:

"They've got the skills with their hands but they don't have the knowledge. So they do things but they don't know why they're doing it. Right? But here in Australia, the thing is, look, we've got an excellent training system. I haven't seen anything anywhere else that is better than what we've got. Equal to what we've got? Yes. Better than what we've got? No."

6.8 Chapter Summary

This chapter has examined the technical education system of a number of developed countries throughout the world to find out the answer to the fourth research question:

"Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges?"

The VET systems in a number of countries in Europe, Asia and North America were examined in this chapter, and findings were listed for each country under the headings of funding, attitude, participation, future directions and regard for Technical Education. In general, this summary indicates that for Australia to achieve and retain an adequately educated VET workforce, it needs to follow the example of countries like Switzerland and Singapore as well as Germany and the United Kingdom. These countries have increased their funding and used innovative approaches to attract apprentices and to create, in some cases, a sound relationship with industry. Finally, in comparing the VET system in each country with that in Australia one interviewee gave a unique account of their experience with technical education in Qatar, the Philippines and Zimbabwe, making the point that the Australian training system was certainly superior to their own and regarded very highly by those countries.

CHAPTER 7

Conclusions and Future Directions for Technical Education

7.1 Introduction

The purpose of this study was to discover the reasons for the establishment of the 24 colleges nationally, and in particular the Australian Technical College, Perth South, on two campuses, at Maddington and Armadale. The reason also had to be sought concerning the later withdrawal of funding for the colleges.

Data were collected by exploring historical documents, records, government transcripts (Hansard) and early accounts. Contemporary data were also crystallised from interview transcripts of the experiences of former staff and students of the Australian Technical College in Perth.

The methodology used to collect qualitative data was a case study bounded by the time constraints of the establishment and demise of the Australian Technical College (later re-named the Australian Trades College) Perth South in Western Australia.

This chapter will:

- Reflect upon the results thus found from historical data and interview data
- Discuss the implications of the research
- Provide recommendations for further research.

The major findings of the study are discussed in section 7.2, following this introduction, the implications of the research can be found in section 7.3 and the recommendations for further research in section 7.4.

7.2 Related research studies

The case study was to establish the reasons for the establishment and the reason for the withdrawal of funding for the Australian Technical College Perth South. This was a focussed study that called on historical and contemporary (interview) data. Similar studies in the historical area of technical college establishment include the thesis by Murray-Smith (1966) in which he gave a very thorough account of the history of technical colleges from the establishment of the colony in NSW. He spoke of the "ambivalent nature of Technical Education" and drew attention to the fact that Australia remained "one of the last countries to lack a national system of technical education" (p. 1024). His comments concerning the approach of the Australian

government to Technical Education up to the 1960's at least, agree with the research findings reported in this study. Very much in accord with the findings of the present study for the establishment of technical colleges was another statement by Murray-Smith (1994): "the history of technical education is essentially a study of the social and economic effects of the chronic shortage of skilled labour in the community, and the ideas devised to remedy this" (p. 170). Also found in this study, there appeared to be a tendency to regard Technical education as being of a lower status than university or academic education. The Martin Report (1964) had attempted to redress some of this imbalance and in later years there was some improvement. Rushbrook (2010) detailed this improvement in his account of the establishment of TAFE. A more recent history of technical colleges, TAFE in particular, was included in a paper by Goozee (2001) in which she states that: "Throughout its history, there has been conflict between technical education and the other sectors of education, particularly universities, about what has been an appropriate role" (p. 9). This is in agreement with the conflict to which the present study refers as included in section 4.2.3.1 regarding the 'Approach' to technical education.

There appeared to be no precedent in the history of Australian technical education for the withdrawal of funding by the Labor government in 2009. However, one of the findings of the present study was that the short lead-time had a detrimental effect on the later survival of the college, and this is in agreement with Goozee (2001) who noted governmental programs that were cancelled or given short lead times to implement. She had found that the Department of Immigration and Ethnic Affairs (DEIR) frequently allowed short lead times for new programs, then either changed the program or withdrew funding (p. 38).

Contemporary findings concerning the establishment of the college would indicate that the 'skills shortage' that prompted the government to establish the college in 2005 had a direct parallel with historical skills shortages. On the other hand, the demise of the college revealed that funding withdrawal was not the actual cause of closure of the Australian Trades College (formerly Australian Technical College) Perth South, but it was mainly the inability of the college management to implement the later ideas for generating revenue. There are no related research studies for this aspect, neither is there a precedent for the blocking by Treasury of an '11th hour'

rescue package that would have definitely saved the college. These contemporary finding are not in accord, therefore, with any historical data.

7.3 Major findings of the study

Four research questions guided this study, and they will be examined in turn.

1. **What were the underlying reasons for the new model of Technical Colleges to be formed in 2005?**

The results indicate that the reason for establishment of the 24 colleges in Australia was the requirement to fill the skills gap left as a result of the mining activities in Western Australia and Queensland. Historical precedents were found for this, dating back to the arrival of the First Fleet in Australia. After a relatively short time Mining Institutes following the British model were established followed by Working Men's colleges which became universities and technical colleges in later years.

With regard to interview data for this question, only the former Board Chair had been present in the very early stages of the proposal and had helped to mould the unique path taken by the Australian Technical College. This did not really answer the research question in this case, since it was a purely political decision based on the skills requirement.

2. **What were the reasons behind the withdrawal of funds for Technical Colleges in 2009 leading to the demise of some colleges and the absorption of others into the TAFE or school system?**

This is probably the key question in the study, and the answer is quite complex. The results indicate that there was no direct historical precedent for similar activity, but because of the importance of the question, more explanation may be required. Although the two sides of government can rarely be in complete accord, one would hope that some decisions, although not bi-partisan at the time, would come to be accepted by the 'Opposition'. Unfortunately, this was not the case regarding the establishment of the 24 colleges. It has already been established that the main reason for the formation of the colleges was the 'skills shortage', which definitely did exist and was still present, albeit to a lesser extent, in 2009, four years on from the establishment of the colleges. Therefore, one would believe that the need for extra apprentice training was still present. However, if the election commitment by the Howard Liberal government in 2004 was to establish the colleges, there was an

election commitment in 2009 by the Rudd Labor government to withdraw funding. When government decisions or commitments require expenditure, they are often reversed when the reality of being in power takes over, but the decision to save money (withdraw funding) was a lot easier to fulfil for the Labor government.
It has also been established that Commonwealth bodies had exhibited an increasing tendency to implement programs with very short lead times, then to change the program or withdraw the funding (Goozee, 2001, p. 38).

There is a lack of any other historical data or precedent for 'fund removal' from specifically a technical college program, although there are many instances where funds for particular projects were promised during the run up to an election. The reality of an opposition party assuming power following a number of years with an apparently stable government, appears to be an astonishment that the previous government had so badly mis-managed the budget that election promises could often not be fulfilled. However, the withdrawal of funding for the 24 colleges had nothing to do with a lack of money in the budget, since the Federal Labor Party had stated quite categorically that they intended to 'shut down' all 24 colleges as soon as they assumed power. Other data are found from the interviews conducted with former staff and students. As was stated previously, the reason for funding withdrawal was nothing to do with operation of the college, but the actual funding withdrawal was responsible for a number of failed attempts to keep the college in operation after the 2009 deadline. The failure of these attempts was found to be mainly due to the short amount of time allowed for colleges to implement the establishment arrangements. A valiant effort had been made 'at the 11th hour' to rescue the college, but the Treasury had suddenly decided not to release funds to allow another TAFE college to buy the Armadale campus of the Australian Trades College, Perth South. It was solely this decision by the Treasury department that had sounded the death knell for the college, rather than funding withdrawal in 2009.

3. **Did the perceptions of former staff, students and administrators towards the now extinct model of Technical colleges formed by the Howard Government in 2005 have any bearing on the demise of the college?**

For this question, only the interview responses were pertinent. Research was unable to establish any connection between the demise of the college and perceptions of

former staff, students and administrators. The perceptions of the former staff were mainly very positive, with many ideas being presented for on-going viability. Student behaviour, misgivings concerning the program and problems concerning government compliance had no chance to be 'ironed out' due to time constraints and apparently very poor administration in the final year of the college operation. However, these were found to have had no bearing on the closure of the college.

4. **Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges?**

Concerning the government regard and approach to technical education in the research question, it would be naive to assume that governments in general make decisions based solely on the 'common good', or alternatively, decisions that would benefit only the country or its people. Examination of the government support for technical education, vocational education and apprentice training throughout the world has shown a wide disparity. While governments in many of the more affluent countries support these areas of education, some countries have been shown to have an attitude that a university education has a higher status, and therefore elicits a greater degree of funding and support. Conversely, many poorer countries, including those termed as 'third world' are unable to justify a very high level of financial support, although the approach in these countries towards technical education is very positive, and they hold vocational education in high regard.

Approach Review: Much of the approach to VET and technical education in general in other countries appears to be dictated by the history of that country. Countries such as England, China, India and Germany technical education has historically not been as highly regarded as academic education. Since Australia was originally settled by the British, governments have found difficulty in embracing technical education for the same traditional reason.

The approach to VET in China, Hong Kong and India is unfortunately very strongly influenced by the long-held belief that manual or technical skills are inferior to academic skills. Singapore stands out in the region as having the opposite approach. The United States also holds a historically poor view of VET, but its approach more

recently is changing with the realisation of better employment possibilities than those with a university education. Canada has the same problem as the USA regarding the status of VET, but recent information indicates an improvement in this attitude.

Participation Review: Participation in Vocational Education in most countries is definitely increasing, usually in line with the attitudes of the people and government. Participation in VET is increasing in Singapore, due to heavy government investment, and in Hong Kong due to the increased number of campuses created by the VTC. Intervention by the government in China has also resulted in an increase in VET participation there. In the United Kingdom the introduction of the apprenticeship levy has had the desired effect of increasing the level of participation in VET in that country.

A shining example to Australia and many other countries is that of Switzerland, with around 65% of 15 and 16-year-old students in the general education system choosing to complete their education in the VET system. The shorter path for VET students to full employment has resulted in a very low unemployment rate.

Notable exceptions are India, due mainly to poverty and illiteracy, and the USA, where there is an apparent 'mind-set' for college education. This is despite the huge effort in some states, like California, to promote VET. In Canada, as a percentage of population, there are roughly ten times the number of apprentices than that in America. Australia compares very favourably against America and Canada, having as many apprentices as Canada, despite a 30% smaller population.

Hoeckel at al. (2008), in an OECD review of Australian VET, highlighted the anomaly at that time regarding funding and how it was likely to affect participation. They noted that successful Certificate III students paid no fees at state schools before entering higher education, while those studying for VET Certificate III qualifications in VET institutions were subject to fees. The review also noted the difference in fee requirements for VET students across different States of Australia (p. 18). The removal of this anomaly may be helpful in improving participation in VET in Australia.

Funding Review: In Australia, funding for Technical Education is mainly from the State and Federal governments, in contrast to countries such as Germany or

Switzerland where Industry provides considerable direct funding for apprenticeships and Switzerland spends almost twice as much per student for both vocational and general educational programmes than the average across OECD countries (Organisation for Economic Co-operation and Development, 2017). Switzerland's funding mix is quite similar to that in Australia, in that a large proportion of education funding originates from the States (Cantons) and the remainder is funded by the Confederation (Federal government). The apparent reduction in funding (see section 2.4 Figure 1) for Technical education in Australia appears to be rather ill-advised, especially with the given examples of Switzerland and Germany.

The early years in Australia depended largely on the United Kingdom for guidance, and it is logical that present day financing of technical education should be compared with that in the mother country. In contrast to Australia's reduced funding for technical education, recently the United Kingdom has invested quite heavily in technical and vocational education, supplementing its finding by imposing a levy on employers.

China, Hong Kong and Singapore have all increased their funding for technical education over recent years. China used to be regarded as a 'developing' country, but has more recently taken a very positive and forward-thinking role in providing finance for VET. It is difficult for China to depend on fees for a source of finance for Initial VET, due to low levels of income (Keating, Medrich, Volkoff, & Perry, 2002, p. 15).

In Singapore, VET is financed by a 'Skills Development Fund' resourced by a 1% levy on the monthly remuneration of lower-wage workers (Palmer, 2016, p. 30).

Unlike Australia, the USA has increased funding for VET in recent years. Since the 'Perkins Act' of 1990, the United States Government has provided funding to state education agencies in support of vocational and technical education. Approximately US$1 billion is allocated to states and territories, with an average of US$19 million per state (Keating et al., 2002, p. 158). Canada has also increased funding for VET, the most notable new initiative being the 10% business tax credit to industry to encourage employment of new apprentices (Center on International Education Benchmarking, 2018a).

Future Directions Review: Of all the countries examined in this review, it appears that Singapore has the most enlightened approach to VET. In this country government funding has been responsible for heightened participation in VET, and it has an educational vision that integrates academic education, further education and VET. While it still struggles with the perception of VET as being of a lower standard than the academic stream, it has made a strong effort to erase this mind-set.

Of all the European countries studied, Switzerland stands out as being the most progressive. The future of VET in this country looks very promising, but policymakers are convinced that VET and the academic stream will eventually merge to create an integrated system, which will be followed by other European countries, including the United Kingdom.

Australia still has a problem with the control and funding of education due to its fairly rigid Constitution. Since 1990 the Federal Government has played a greater role in funding for further education including VET, but needs to follow the lead of Singapore if it wishes to improve the 'poor relation' stigma that accompanies VET. The USA and Canada have recently installed initiatives to increase apprentice numbers, although the situation in the USA is difficult to predict. There was no evidence to suggest, historically or through the interview process, that the Government attitude had a bearing on the closure of the college. Attitudes in many less developed countries appeared to contain a certain 'class difference' between technical education and university education. This does not appear to be a significant factor in Australia and although there are some countries such as Switzerland and Sweden from whom Australia could learn, the Australian government's attitude to technical education seems very positive.

Summary

Compared with other countries, the government approach to technical training did not appear to influence the decision to withdraw support for the technical college program.

7.4 Limitations of the Study

Limitations were discussed in section 1.7, and included the inability to interview staff of other colleges that had been in a similar position after funding withdrawal

and the fact that the interviewer was known to all participants. During the study, however, it became obvious that several changes could have been made that may have enriched the data from interviews.

1. The same interview questions were asked of all interviewees despite the different foci of their expertise. This meant that some interviewees were unable to answer certain questions beyond their experience. The coding procedure allowed much more general questions that could have been asked and possibly the data enriched accordingly. Also a question concerning the participant's view of government approach and attitude of the populace to technical education may have provided parallel contemporary data with that obtained historically and from other countries.

2. It has been noted that in the past, there were no data concerning actual funding withdrawal from technical college programs, so no historical parallels could be drawn. Perhaps this is an area where further research could be carried out, not just for the Australian system of technical education, but for technical education overseas as well.

7.5 Implications of the Research

There was no doubt that the Skills Shortage in Australia leading up to 2005 was real, and needed to be alleviated by an injection of quality apprentices and/or trades people. It was responsible for the decision to be made by the Howard Liberal government to establish at least 24 Technical Colleges in Australia. (There had been a decision made for another 4 colleges, but this did not appear to eventuate.)

The plan for the colleges left insufficient time for adequate liaison with industry, or for the colleges to create a solid program before pre-apprentices started their training. Also the government failed to gain bi-partisan support for the decision. This lack of foresight by the government of the day set the stage for the failure of the program from the outset.

The study also investigated the historical 'social class' distinction between university education and technical education, and although there is still some belief that the latter has a lower educational value, there was no evidence to suggest that it had any bearing on the decision to withdraw funding from the ATC.

In summary, it is believed any future attempt to establish further technical facilities should:

- Have bi-partisan support or continuation guarantees
- Involve non-government key personnel in planning
- Allow sufficient time for establishment

7.6 Recommendations for Further Research

The attitudes of various governments to technical education is often influenced by tradition and class distinction. Perhaps further research could be conducted in this area to find out how this entrenched attitude, if it exists, has caused technical education to be considered to be of a lower social standing than university education.

The other area touched upon in this study was that of the way in which government decisions are made. Are any of them truly altruistic, or are they all made simply to curry favour with voters for government to stay in power? Research into the locations of all 24 colleges has revealed that many were positioned in marginal seats for the Liberal Government at the time. Perhaps many similar government decisions are influenced by favourable or politically influenced geographic locations.

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Appendix 1

Ethics Approval

Curtin University

Memorandum

To	Alan Gent, SMEC
From	Pauline Howat, Administrator, Human Research Ethics Science and Mathematics Education Centre
Subject	Protocol Approval **SMEC-32-13**
Date	29 August 2013
Copy	David Treagust, SMEC

Office of Research and Development

Human Research Ethics Committee

Telephone 9266 2784
Facsimile 9266 3793
Email hrec@curtin.edu.au

Thank you for your "Form C Application for Approval of Research with Low Risk (Ethical Requirements)" for the project titled *"The rise and fall of an Australian Technical College Program in Perth"*. On behalf of the Human Research Ethics Committee, I am authorised to inform you that the project is approved.

Approval of this project is for a period of 4 years **20th August 2013** to **19th August 2017**.

Your approval has the following conditions:

(i) Annual progress reports on the project must be submitted to the Ethics Office.

(ii) **It is your responsibility, as the researcher, to meet the conditions outlined above and to retain the necessary records demonstrating that these have been completed.**

The approval number for your project is **SMEC-32-13.** Please quote this number in any future correspondence. If at any time during the approval term changes/amendments occur, or if a serious or unexpected adverse event occurs, please advise me immediately.

PAULINE HOWAT
Administrator
Human Research Ethics
Science and Mathematics Education Centre

Please Note: The following standard statement must be included in the information sheet to participants:
This study has been approved under Curtin University's process for lower-risk Studies (Approval Number xxxx). This process complies with the National Statement on Ethical Conduct in Human Research (Chapter 5.1.7 and Chapters 5.1.18-5.1.21). For further information on this study contact the researchers named above or the Curtin University Human Research Ethics Committee. c/- Office of Research and Development, Curtin University, GPO Box U1987, Perth 6845 or by telephoning 9266 9223 or by emailing hrec@curtin.edu.au.

Appendix 2

Analysis of Interviews

Research Questions

1. What were the underlying reasons for the new model of Technical Colleges to be formed in 2005? **Anchor code 1: Reasons for Formation and Continuation**
2. What were the reasons behind the withdrawal of funds for Technical Colleges in 2009 leading to the demise of some colleges and the absorption of others into the TAFE or school system? **Anchor code 2: Reasons for Demise**
3. Did the perceptions of former staff, students and administrators towards the now extinct model of Technical colleges formed by the Howard Government in 2005 have any bearing on the demise of the college? **Anchor code 2: Reasons for Demise**
4. Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges? **Anchor code 2: Reasons for Demise**

Interview with Former CEO

First Level Coding

What was your feeling concerning the professionalsim of the administration and teaching staff?

I guess, um...I suppose in any organisation you're going to get variability between, ah, the very good and ah, some who were perhaps not as driven as others. And I think that would be fair to say we had a couple of people who, in my time we moved on. In the...in the trade areas, um, and I think it would be fair to say there was probably one in the WACE teaching area as well, that perhaps just didn't...I think that their professionalism – maybe not their professionalism but their competency wasn't quite where we needed it to be. Um...and that was largely because...ah... there was a lot of Government... a lot of compliance requirements with both the school side and the RTO side. So we had to comply with the AQTF standards, we had to comply with the teaching standards, as a registered school. And I think that...ah...in those cases we weren't getting what we needed from those people to continue on the path we needed to continue on and maintain registration. But in the main, I think that er... Step right back. So right at the beginning, we tried to...Well, we did. We introduced something completely different. We were in a really fortunate position that we started with a blank canvas. There were no... Yes, there were plenty of Governance from Government giving us funding coming through Government, but in terms of how we structured the college, um...we had a blank canvas. We were able just to develop that in our own way, which is the program...developing the program, providing that we met those AQTF requirements and those school requirements. The way in which we delivered the program was our choice. And that was that. The five weeks...the five weeks on and off model in the second half of year 11. Um...So that gave us a great advantage. It also gave us a great...I think, a great selling point to introduce staff into this college because it was different. It was an opportunity to do something very different from mainstream school. So I think we were able to attract – how shall I say? – People who are prepared to think differently. So I think, in general, you're going to get a good standard – a good quality and professionalism of people because they've already been attracted to something that's different, and the college was very different in the way that we ran it and the way that...the way that we structured the program, with a focus on outcomes. So...um...the fact that we're able to get people into

Reason for Demise: Perceived Lack of professionalism.

Reason for Demise: Difficulty in achieving Govt Compliance

Reasons for Formation and Continuation: Unique College program

Reasons for Formation and Continuation: AQTF requirements met

Reasons for Formation and Continuation: Unique College program

First Level Coding

part-time jobs – part-time apprenticeships, and the fact that we're able to deliver that particular program with half a day of every day in the workshop etc., allowed us to attract people who would think differently to the mainstream way of doing education. From a personal perspective - I think that having been a father of boys particularly - I think it was a great opportunity to look at the mainstream education system and pick out the best bits, but also look at what was missing, potentially in their system, particularly for boys. Um...and provide something that was...I think can enhance their learning opportunities. So we matched...we matched the staff – both administration and teaching staff, to, I guess, those ideals, perhaps values of doing something different. I think that generally it leads to a staff that want to do so. A great deal of professionalism and also empathy to the way we were doing the program and empathy with those who were taking the program. *As a team.* Absolutely. Ah, you know, not without its team issues. I mean I could never fully understand, I suppose, being a part...being part of the administration staff, and therefore having roles...having a role – that crossed over boundaries. There was the geographic dislocation between *(Name withheld)* and *(Name withheld)* and there was a ...there was a competitive nature which I think was OK, the competitive nature between the two campuses, but there was also a lot of tension between the two campuses, and I could never fully understand that, because we were all one team. So, those sorts of things you could see – in some ways, there were some great positives – the competitive part was quite positive – but the tension part we had to work...we had to consciously work on, and try and...Because what we were looking for, I guess from a leadership perspective in running the college, this was consistent and fair organisation. But there was this difference. There was a difference between the campuses. I know there was a difference between the trades in the campuses and so on but there was some tension which was...which was...wasn't difficult, it was there. It was just there. But in general, I mean as a whole team, um...all of us, I think, were...were engaged and pulling in the same direction for the kids – for the kids that left our program. And they weren't easy. The guy...the students that we took on typically those that weren't suited to the traditional teaching...er...education mould. Um...and we provided an environment that I think assisted the majority of them, um...to reach perhaps a level they may not have got up to in our school system, and chiefly in WACE. So I think that provided a good outcome for a lot of those kids.

Reasons for Formation and Continuation: Unique College program

Reasons for Formation and Continuation: Perceived high level of professionalism

Reason for Demise: Staff tensions

Reasons for Formation and Continuation: Good student environment.

What was your feeling concerning the teaching standard?

First Level Coding

And that answers the second question about teaching standard really doesn't it?

Well it does, because obviously...The goal was to get them to the end of year 12, to get them into a job. And I think that...I don't recall the exact numbers but it was in the high percentiles of getting people into workplace centres, certainly getting them through to graduation for WACE and getting the vast majority in jobs, um, when we were there – when I was there. And we went through ups and downs, you know, we started, um, when we opened the doors in two thousand and....was it six or seven? I can't remember. Yeah, 2007 we opened the doors, so it was prior to GFC. We had small numbers and we had employee...employers, I should say, knocking on the doors for more apprentices. When the GFC hit, you know, industry sort of backed away a bit, from numbers and apprentices and so on. It became more difficult, but we still had a solid, strong program that allowed these guys to...even if we couldn't get 'em apprenticeships we were able to get 'em work experience so they were still getting exposure to work. So in my time I think that er...the teaching standard also reflected the teaching program. And I think we had...still to this day, think we had um...something that we could all be very very proud of in that program. I really do believe that. It survived the start of the thing, but, um... I think we made great inroads into...into doing it differently and it's really sad that it's not continuing. It was expensive, though. I have to say it was expensive. Um...there were some other elements that go to teaching standards, probably the professionalism that we didn't talk about, that is that we were also able to structure the employment arrangements differently to the mainstream. So we went with the er...in those days we went with individual agreements and then we changed that over to the er...EPA so we had a...an employment instrument that suited the whole organisation. And I think that also gave us some advantage in who we were able to attract to the college, and on what basis. And, you know, I wouldn't say that we were...we were certainly competitive in pay scales with mainstream education system, so that also allowed us to attract professional people.

→ ***Reason for Demise:*** Influence of GFC

→ ***Reasons for Formation and Continuation:*** Good teaching standard

→ ***Reasons for Formation and Continuation:*** Unique college program

→ ***Reasons for Formation and Continuation:*** High regard for professionalism

What was your level of confidence in the teaching program?

First Level Coding

Again, I'm getting really biased because it was something that...I'll just sort of give you a bit of information of how it came about. When we first set up – so we're still under...um, the progress towards opening, but there were a couple of other colleges that were in the same, sort of...um, stages as us in terms of building towards opening, and I went across to a meeting with other CEOs in Adelaide, and met a few. There was only probably half a dozen or so there. And I was talking to a fellow who's...who'd come from the Catholic Education system in um...in Adelaide and he was setting up the Adelaide South college. And he had this concept of 5 weeks on – 5 weeks off, which I hadn't thought of at that stage, but I'd listened to him...came away from that and thought 'we can do this, we can do this in Western Australia'. Which is good for I suppose that's where...that was the planting of the seed that then germinated into our final plan for the college. And then we looked at how we structured the first six months and then the year 11 with the classroom and workshop based then finding them a job with the 5 week rotation. How much confidence did I have in that program? 100%. Again, I'm really biased because I had a lot of... I played a big part in actually developing the program, but in terms of going back to what we were there for – what were the outcomes we were looking for, um...that program led us to those outcomes, you know, and so I have extreme care for the scale of the place. Again though, it's fair to say, it's expensive. It was an expensive program. We were heavily reliant on lots of resources, we had a massive capital injection, getting equipment and so on, and the *(Name withheld)* facility which came from the Government. The funds came from the Government. So, developing that program and having confidence in it allowed us to design, with particular emphasis the way we wanted it, with those magnificent workshops that we referred to earlier, to provide this opportunity and achieve those outcomes. But it was expensive and I think that was part of the downfall – we'll get to that later – but part of the downfall was the sustainability of peace around, ongoing funding not being there and then having to develop a new model that kind of...was self-sufficient under the Labor Government. There may be something a little later on that we can talk about.

Reasons for Formation and Continuation: Unique college program

Reasons for Formation and Continuation: High confidence in the program

Reason for Demise: Costly program

Reason for Demise: Loss of Government funding

How did you consider the support of the college program – funding, administration, both external and internal?

So, in its growth, we were provided sufficient funding when we were part of the Government program – the Australian Technical College Program. So we were able to provide our funding needs to Government after some negotiation and rationalisation, then that amount was agreed upon, and initially having approved the capital to build the *(Name withheld)* campus and equip both campuses...um, at *(Name withheld)*...we didn't have capital funding – we had to, um...find a different way to fund that. That was difficult. What it was, we included it in the original funding program, so the lease costs were available to us, so that...so we were OK there. Again - very expensive lease because it was a purpose-built facility, um...and therefore, you know, the costs were higher than they would have been if we'd been able to just go and find something in the marketplace, but it wouldn't have suited our needs given that we were a school and an RTO. So, whilst we were under the Australian Technical Colleges Act, the funding was sufficient, and we had a four-year funding model. So we knew that that funding was going to get us through those four years, um...always rested I guess on Government. Where there would be a change of Government as we know there was, in 2007, um...and the funding was...the commitment to the funding at the end of '09 was...stayed in place, so we were right to the end of '09 in terms of the amount of money that we had available to us. But from '07 – the change of Government in '07 – was it November I think? – um...it was clear that we'd have to come up with a different funding structure post 2009. Now it took us probably 12 months to develop that, um...a lot of...a lot of late nights, a lot of negotiation with the Department of Education, Employment and Workplace Relations, and we were one of very few colleges left actually were able to justify our ongoing existence to the then Labor Government. Um...and we were able to continue under a new model which included introduction of the...the training company. And that was...from a forecast perspective, you know, how we projected the uptake of apprentices in the Group Training area. It would have – should have – sustained the college financially, plus we were still getting funded as an RTO through the State Government – we were still getting funded as a school through the State Government as an independent school. So those funding structures were still in place, ah...but we had to become self-sufficient beyond that. And those two funding structures, which are designed for mainstream education facilities, or mainstream RTOs, were a combination of those. And it wasn't sufficient to sustain the college in the format that we had it, so we had to find this other funding source which worked - the GTO was designed to be that. I think it would be fair to say it didn't get traction as we would have liked to see as a GTO – it

First Level Coding

Reason for Demise: Loss of Government funding

First Level Coding

didn't get our full class numbers from year 1...um, we were about 70% I think, from memory. It wasn't...it wasn't disastrous but we still would have preferred a better option. But also, the other thing that happened at the same time was we had to...we had to reassess – strategically reassess how we were going to handle the *(Name withheld)* campus. We looked at a number...this goes back to...late 2007, through 2008 into 2009 period where we were going backwards and forwards to Government around how we were going to sustain ourselves post-'09. And one of the big sticking points was the cost of the lease – *(Name withheld)*. So we had to...apart from the GTO which we felt would sustain that...the on-going operations of the college, um... the lease was the one thing that we couldn't help. Um...we had to see if we could find another option. So we landed at the option...we landed on this divide, so we actually...we...we sought, um...capital from the banks. The four big ones weren't interested. We ended up going to the community bank – Bendigo, and they supported us, so we were able to take out a loan on that facility. Um...we looked at a number of options including letting it go, letting the *(Name withheld)* campus go. What the numbers showed us at that point was that if we let it go then really *(Name withheld)* was not sustainable. We just wouldn't get the volume of students to...to keep the funding going so we needed to keep *(Name withheld)* open. There was also a lot of political pressure to keep *(Name withheld)* open, both at the local Government level and also the Federal Government level because the member for Canning – Don Randall – was still part of the...was still in Government. Sorry, was still in Parliament But Alana McTiernan was also the State Minister on the Labor side, and she was going to support us. So there was a very heavy political influence to try and maintain a presence in *(Name withheld)*. Um...perhaps that was, in hindsight, a 'bridge too far'. I mean from a funding perspective. Um...but at the time, we certainly felt that we had the right business model...But things started to tighten – after '09, things started to tighten. Um...but having said that, we maintained our staffing levels, we maintained – from memory – our student levels, but the one thing we couldn't...we didn't hit...the target didn't hit was the GTO. But remembering that '08 – '09 was GFC time, um...so we're still the back end of that, so we tried real hard. And then of course, where'd I go? – I left in two thousand and eleven. So we had a couple of years of running well. I probably...end of '09, so 2010...I left in June, I think it was in 2011, end of May. So I had about nearly 18 months of operating independently of Government. Um...And, you know, it was tough, but I think we were still going OK, at the time. *Keeping your head above water?*

→ ***Reasons for Formation and Continuation:*** Private Funding

→ ***Reason for Demise:*** Low student numbers reduces funding

→ ***Reasons for Formation and Continuation:*** Positive Support

→ ***Reason for Demise:*** Funding problems

→ ***Reason for Demise:*** Performance target not met

How relevant did you think this technical college program was in Western Australia?

First Level Coding

I had...er...when we were looking for alternate funding sources I had a number of meetings with senior bureaucrats, um...in the West Australian Department of Education and I felt very strongly that we were a required organisation on the education landscape. That was my sense, from those conversations. Having said that, it was very clear that the WA State Government was not going to support us. Um...I think at the time we had a Labor Government. Yeah we did. We had a Labor Government in West Australia. So, had the politics at play over not wanting to support a Coalition policy, um...so that was certainly in play. But again going back to outcomes I think that...that we had proven that things could be done differently. Um...to the point where, in the last year or so before I left, I was asked to sit on a steering committee by the Director General, the Department of Education to provide input into our State to provide vocational education and training in schools. If that doesn't talk to the relevance of the program, I don't know what does. So from that education standpoint, the relevance was obvious. For me: obvious. From a political standpoint, it was far more difficult. So, that doesn't go to the discussion of relevance, it goes to a different discussion. But from an educational standpoint I think that the program was extremely relevant. And again, it always comes back to those...the outcomes. It was all about the outcomes. Getting people through WACE that perhaps wouldn't have got there, and getting people into jobs. That's a natural goal. So it provided opportunities and it provided a different way to get to the same result.

Reasons for Formation and Continuation: Positive Support

Reason for Demise: Government expediency

Reasons for Formation and Continuation: Relevance of the program

On a scale of 1-5, 5 being the highest, how successful do you believe the program had been on the basis of providing a source of quality apprentices?

A 5. I mean, the thing that we had from employers – I'll go back to that point I made earlier – when we were in a growth phase...when the economy was in a growth phase, before the GFC we were in a situation where employers were coming to us saying: "Have you got more apprentices. We really like what you're providing. Have you got more...?" We didn't. We had a small number at the start up. But even in those tough times during the GFC, the quality of the apprentices, um...and what they took to the workplace given the program that we

Reasons for Formation and Continuation: Positive support from industry

First Level Coding

had, um...you know, there were very very few failures in those apprenticeship areas, um...so it was in a high standard in my view. And we...it was in a high standard because – we'll go back to the original questions around the capability and the competence and professionalism of our people – um...a tremendous program that allowed people that...we had these young folks... to learn in very different ways – different environment. The...the infrastructure that we were able to provide to those learners that reflected industry standard, in some cases was in front of industry standard in that we had...we had state of the art equipment that hadn't, you know...in some workplaces hadn't been employed. So, um...so I think, you know, in terms of quality I couldn't fault it.

Reasons for Formation and Continuation: Unique college program

What do you consider to be the main strengths of the program?

Well, from an educational perspective, the fact that, um...the trades we offered were those trades which were traditionally occupied by males and that would be...our main audience was male; we provided a learning environment which was very, very different to mainstream education. So, there's been a wealth of study into boys in education and I think we led...we provided a program that...that took those boys out of that 'locked in a box' classroom type of environment into that whole workshop environment. But from a WACE program that... the whole concept of conceptualising the WACE subjects to their trade so they could see relevance. All of those things were certainly strengths to the program, and I think, again, it goes back to the outcomes, being able to get young people into work and through WACE that perhaps wouldn't have done so in mainstream education. So the program was certainly a strength; I think the fact that we had people who were willing to do something different all pulling together for those...to reach those outcomes, but doing it in a very different way. And to their credit, you know, we pulled people out of mainstream education – some who'd been around the education system for a very, very long time, but they were willing to look at our program and understand that we were doing something different. So there were a number of strengths: the program itself; the infrastructure we provided; the people who were...you know, administratively and from a teaching perspective involved in delivering those programs and reaching those outcomes. Um...it's a strange thing...in terms of strengths I think our student population probably should also be given some credit here. I know we had some tough kids. We had some really tough kids. We turned around a lot of those

Reasons for Formation and Continuation: Unique college program

Reasons for Formation and Continuation: Unique college program

First Level Coding

kids. Um...but I think, particularly in the early days, one of the strengths also was the willingness for both the students and their parents to try something different. It was untested in the early days so that probably speaks more to the program and its strength than perhaps the other way. But...you know, .funding in the early days – it was a strength because it provided that infrastructure and allowed us..ah...to provide our own scope – how we were going to do it. So that was certainly a strength. Um...we carried that through even after the funding model...after the funding ceased. We carried the program, we carried the people, in terms of our staff, through into the next phase anyway. So...so I'd say those four things: the program; the infrastructure; the people; and I guess the funding behind it.

Reasons for Formation and Continuation: Staff support for program

What weaknesses have you found, if any, in the program?

Well, the obvious weakness was the loss of the funding. Um...we...once we had to find our own way, um...was it over-reached perhaps? Perhaps, you know, we put too much...maybe we didn't read the economic climate well enough when we were doing our...our research and presenting our business case for the new model with the Group Training company. So we didn't hit our targets. Um...we hit about 70% in our first year as I recall. Um...and that was problematic from a funding perspective, so, you know, we had all the best intention and we read, you know, the signs that were there we read, at the time, we felt we could do it better, so perhaps that was a weakness er...strategically. Um...I can't comment beyond my time obviously. There are some...you know, I...I took an interest from afar. Um...it was not my place to involve myself at all once I'd left, but having had some conversations with other people after my time, I think there were some decisions that were taken that were...ah...around leadership and, um..I just felt that the college lost its...its vision. I think...even its purpose. Um...once a number of...I guess the original – the people that were around at the start who...who perhaps we invested so much in it personally, that we held that fabric together for a while, um...beyond the funding – the Government funding. And, um...once we agreed, you know... a number of us, particular senior leader areas left in and around the same time, that vision, or that purpose, ah...perhaps left with us, I don't know. That's just what I picked up on in various conversations I've had since with others who left.

Reason for Demise: Loss of funding

Reason for Demise: Loss of confidence by the staff after funding removal

What were your impressions of why the program failed?

It's easy for me to say that because I wasn't involved. Um, you know...some would perhaps read the signs, you know, on the balance sheet before I left. I don't know. Um...but I do think that...I think in any organisation when you turn over a large portion of...of your leaders and others – it wasn't just the leaders who decided to move on – um...you're going to have different perspectives on things. And the ownership of the program, ah...and the desire for its success, um...was very much with those people that were there from the start. Um...myself, and (*other personnel mentioned)* a few others who've moved on.

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Reason for Demise: Loss of confidence by the staff after funding removal

What were your feelings concerning how this program compared with that in other countries?

I honestly couldn't comment. I just don't have enough knowledge of how others....

Thank you very much.

Interview with Former WACE Curriculum Manager

First Level Coding

What was your feeling concerning the professionalsim of the administration and teaching staff?

It depends on your definition of professionalism and I've found in education that that varies a lot but if you're talking about how passionate were the staff in the actual concept of the college and what it was going to do for the students as well as our society, you know, and industry in particular I know everyone was fully on board with it really. I know that there were people that had differences of opinions, what not. *How about the administration staff though?* Yeh, well look at (*Persons named)*. I mean those three were just sensational. Sensational. I know we had (*Person named)* now – she was a lovely lady and she was professional but she was just not a high functioning…She was at her pace and that's what she did. But I think one of the last girls that came in – I can't remember her name now – no, they were quite good. Our councillors were sensational – probably the best councillors I've seen out of school and we got the most work out of them compared to anywhere I've ever seen. You compare them to what I know psychologists at schools do – um, student managers, student services people – they were above and beyond. They were just excellent value for money. They were awesome. I mean, considering what we, um… Particularly once, after 2009, and we knew we were up against it, and to do the amount of work that they were doing was just incredible. Yeh, it was just great. And the teaching staff were too. I mean, they stepped out of their comfort zones, there we go. When I said we need to raise the standard of numeracy, we need to raise the standard of our science, physics, you and (*Person named)* stepped up….Other Maths guy…*(Name withheld)* campus…(*Person named)*. Okay? Once again, out of his comfort zone, just did… Nothing was too hard. It was good.

Reasons for Formation and Continuation: Staff support for program, High regard for professionalism

Reasons for Formation and Continuation: High regard for professionalism

Reasons for Formation and Continuation: High regard for Teaching standard

What was your feeling concerning the teaching standard?

The teaching standard was good. Um, the teaching standard just wasn't the issue and the main reason is, I mean we were not delivering stage 3. We weren't delivering what they call ATAR standards, so, but we were delivering above the minimum required for apprenticeships, and that particularly, not so much in our first 18 months whilst we were feeling our way, getting a feedback from industry – that was important.

Reasons for Formation and Continuation: High regard for Teaching standard

Getting a feedback from industry saying listen, these guys are not reading you know, properly, lalala, and it was the numeracy the same. The minute we started doing metals, fabrication, and electrical, it was obvious we had to lift the maths to stage 2, but we were able to do it quite easily. So we were the only school in the State pumping out apprentices with stage 2 mathematics. Now stage 2 mathematics is entry level University so we were pumping out kids that can do a reasonably high level of maths. We had some excellent kids, but you know, we also did push 'em when we changed that standard. So the standard was good. We definitely improved the literacy. The program started to become regular. Whilst I didn't agree with everything she did, having, um, (*Person named)* at one campus and the young girl, (*Person named)*, having um, the chap who's now at Guildford – they were just quality literacy teachers, and they ran a very solid and sequential program. And, you know, if a kid needed an area worked on, well they just did it. We had smaller classes too so they were able to do it as well. So I was pretty happy with that.

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Reasons for Formation and Continuation: Unique college program

Reasons for Formation and Continuation: High regard for Teaching standard

What was your level of confidence in the teaching program?

Yeh, the teaching program was fine. You know, the weakest area was Workplace Learning. And that wasn't because we didn't have the right teachers or anything. With Workplace Learning we didn't actually have a teacher allocated to us. Because we were short staffed and trying to run on the smell of an oily rag, I was doing it – across 2 campuses to 250 kids! And it all went well – what happened was, there was one change in the curriculum from 2011 to 2012 and I missed it! So I missed one of the grade descriptors, so when they came in and they did moderation my moderation, my grading, was fine for 2011, but when it came to 2012 I'd missed that grading so they just got 'C's, and most of them were 'C's anyway.

Reason for Demise: Problems with teaching program

How did you consider the support of the college program – funding, administration, both external and internal?

Well, look, honestly, after 31st September 2009 we were hand-balled and left on our own devices and you know, I was privileged to go and see the financials for every year and we were gradually getting less and less and less, just hoping to increase the student numbers at some point. Having the two campuses killed us, big time. So that was a political decision. So a lot of our expenses were created politically in the initial set-up of how the place was set up so, not being allowed to buy

Reason for Demise: Government funding problems.

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(Name withheld), like we were able to get hold of the land at *(Name withheld)*, having to have a third party build and own *(Name withheld)*, and then lease it back to us, killed us. That was the wrong decision made at the time. And they're all trying to be 'arm's length' and whatever, but at the end of the day, if we didn't have to raise money to buy that building a second time, effectively – you know, we had to borrow ten million from Bendigo Bank - if we didn't have to do that, financially we'd have been OK.

Reason for Demise: Private funding problems

How relevant did you think this technical college program was in Western Australia?

Oh, extremely relevant, yeh. I mean no other college did what we did to the standard that we did it. No other college has, or had, or to this day to my knowledge has that level of expertise in the trade training area. No other school has it.

Reasons for Formation and Continuation: High relevance and confidence in staff

On a scale of 1-5, 5 being the highest, how successful do you believe the program had been on the basis of providing a source of quality apprentices?

I think, up until 2011, prior to (*Person named)* leaving, I think we provided I would say, you know, 4.5, 5, somewhere in there. Post (*Person named)* leaving, um, I think the quality of the apprentices was still high, so it's still 4, but I think our service to managing the RTO, that really took a big dive. I mean (*Person named)* worked some stupidly absurd hours to keep that RTO not just ticking over but to actually try and improve it. So the organisation itself was producing quality apprentices without a doubt. Far better numeracy and literacy but also with a bit of business acumen behind them but also we've developed the kids' maturities – you know, we're two years of working with their maturity level, employability skills before they were let loose holas bolas onto the big bad World.

Reasons for Formation and Continuation: Production of quality apprentices

Reason for Demise: Administration problems

Reasons for Formation and Continuation: Production of quality apprentices

What do you consider to be the main strengths of the program?

The main strengths for me were high levels of literacy and numeracy, higher competence of the young person, going in, so when they got to the age of 17 they were a far more competent trades apprentice or trainee than someone coming straight out of school. So they had better skills entering into the workplace. 'Course we did, we had top notch trade people teaching the stuff and the kids were coming out in the metals in

Reasons for Formation and Continuation: High literacy and numeracy of students

First Level Coding

particular were just good quality, really good quality, and the carpentry guys were excellent quality. And that was continually fed back to us, that they were just good quality. *And would you say another strength would be the holistic nature of the….* Well that's the other part of it. They come to us at 15, 16, and then the maturity required to then go and work in the workplace – and some of our workplaces were tough – I mean, uh, Fremantle Steel, that could be quite a nasty place to work so the ability to be able to support those kids as they turned into men and women was critical so, you know… Everyone there was about trades, everyone there was about employability skills but also you know, the reasons why people drop out of apprenticeships, we covered, so I think there's a report going in 2007: 'The First Hundred Days of An Apprenticeship', *(Lost Opportunities and Wasted Skills: McDermott, R, 2013)* Learning Experiences of Apprentices and their Attrition 50 – 60% of the kids drop out. So the reasons were: highlighted from an employer's side, from the employee's side, you know, the apprentice side, so we were always about making sure that we had support for their emotional needs, making sure they were covered with uniforms, PPE. Transport was a major issue that caused us huge amounts of grief. Um…So covering all those type of things. Workplace visits just to make sure things had taken place that were supposed to. Things that wouldn't happen if they were in a normal school or TAFE system. We just provided that extra support which meant that, yeh, we had more people stay in the apprenticeship. You know there was a 50% drop-out in the normal apprentice field, we were having a 30% drop-out, so we were improving it by 20%.

Reasons for Formation and Continuation: Unique college program

Reasons for Formation and Continuation: Lower comparative dropout rate

What weaknesses have you found, if any, in the program?

Ah, yeh, well, weakness was obviously just running a new program and trying to combine the school with it. Industry selling to an industry which couldn't sell to quite a few…And there was quite a few industries that couldn't accept their concept of 5 weeks on, 5 weeks off, that type of thing, so, ah, combining workplace time with going back into the trade training time, They're just you know… Businesses are about…they're all about making money, they're actually not about teaching kids how to learn a trade to continue their trade on. The 'tradee' or the tradesman pride I suppose in 'my trade' and making sure 'my trade's' quality and continuing the succession of 'my trade' seems to have been lost. So one of the steps we had was obviously trying to regenerate that and finding employers that had a similar sort of ethos. You know,

Reason for Demise: Difficulty in selling concept to industry, initially

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'Skill Hire' didn't give a shit, um, they just wanted someone there working. They really didn't care. And some of the…. You know, during the hard times, when people didn't want to pay for apprentices, that sort of thing. You know, obviously that really hurts us because we had, you know, a couple of hundred of them looking for work. So there's some of the workings… And it's to do with the work rotation and getting evened out. And in the end also, just understanding and marrying up the nature of trade funding with school requirements, so prior to 31st December 2009, we had that regular set block of money coming in – we knew what we were going to get, we knew what we were going to expend, it was very solid, we didn't have to worry about going out and earning nominal training hours to be able to find the spots. After that time, all of a sudden, our training was no longer focussed on what the kids needed, what the employer wanted, it was then focussed on, OK, how many…what units do we need to do to make sure we get enough training hours in to be able to pay for the program. So there was a switch in emphasis, um, away from, OK, what's the quality of training to making sure that we could actually afford to keep the place afloat?

Reason for Demise: Loss of funding causing lack of focus

What were your impressions of why the program failed?

Oh, the RTO killed us. Failure of the RTO, and that came down to... we tried, you know…because, um… We knew were going to have to be self-funded, so the idea of having the school section, the RTO section and the GTO section combined, um, we didn't have the expertise to run the RTO properly in my mind. What I was talking about was after (*Person named)* left, there was a humungous hole there and things started to go off the rails, staff started to turn over, our compliance started to drop…everything. And that started to kill us. And in the end, when (*Person named)* did leave, we just had….And then the new girl came in. She…You could see that she was really worried, because she was quality… RTO manager, and she could see there were major problems. Yeh, she came in like…not the CEO, the next lady down.

Reason for Demise: Administration problems

What were your feelings concerning how this program compared with that in other countries?

Other countries. Don't know about other countries, except I've been in the UK and seen what they attempted to do in the 70's and 80's, with their schools and trade schools and all that. We had similar stuff on the East Coast, in Australia, don't forget,

so this isn't a new concept for Australia. Um…What was new about our concept was how we tried to get them into the workplace. And, how… We weren't about, you know, we were about getting…to get that secondary graduation, giving more time to mature, get their numeracy and literacy skills up before they went full time in the workplace, but train them as a Certificate III apprentice, which means they were obviously employed. So we were having the guys go to block employment, you know, 6 months after they'd started doing Year 11, whereas other schools would just have them in there, and they might do the one day a week work experience until they get offered a job and then they go. So the whole ethos of trade schools in the past was 'get them into a trade, get them into an apprenticeship', um, but once they're in, that's it, they're into the TAFE system where they're no longer supported by the school system, whereas we were about supporting them for the full 2 years. So that's the biggest difference.

Thank you very much.

Interview with Former Head of Electrical Trades Training

First Level Coding

What was your feeling concerning the professionalsim of the administration and teaching staff?

The people that I was using as trainers were the best trainers TAFE had. In the Electrical, when you…Well, you've met them. I mean when you look at people like (*Persons named)*, you know, they're all at the top of their tree, you know. *What about administration? That was OK too?* Our administration or theirs? *Theirs.* The administration…. There was a lot of shortfalls in the administration. I mean, you can't hide the fact. Everybody knows that. There was a lot of shortfalls in the administration. Look, if the administration was right…Just take the Electrical, because that's the area that I was involved in anyway. They would have never had a bricklayer, or an ex-bricklayer, going out, and doing the field supervision and the sign-offs for an electrician out in the field, when they're doing their work experience. OK? That should have never, ever, ever, happened. It's just not on. The administration were the people that allowed that. You just…You can't hide the fact – that's the way it was. It was part of their downfall.

Reasons for Formation and Continuation: High regard for Teaching standard

Reason for Demise: Administration problems

What was your feeling concerning the teaching standard?

I honestly believe, given the circumstances, support they got from the administration – and I felt for the lecturers – I can remember having discussions with (*Person named)* and walking past her room on numerous occasions. You had guys sleeping on the benches, you had guys playing games, you had…It was just a totally disruptive class. But, a couple of times I made the comments about 'why do you put up with that? Why don't you just get rid of them?' And you know what? You know as well. You do get rid of them – you turn round and try and discipline 'em, and then you've got the councillor, or you've got the person in charge – they just bring 'em straight back in, and the best you get is: 'Oh, some of these kids come from disadvantaged families, and you'll just have to do the best you can with it, but kickin' 'em out of a classroom is not the way to go'. Well, no one said kickin' 'em out of the class room is the best way to go, but surely, if a person is that disruptive you take 'em out of the classroom and then you expect whoever is in charge to deal with it and do something about it. And if you can't deal with it, and you can't do anything about it, then you're jeopardising the learning

Reason for Demise: Problems with student behaviour

Reason for Demise: Problems with student behaviour and administration

ability of everyone else in that class. And you can't do that. And yet the administration never addressed the issue. Never!

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What was your level of confidence in the teaching program?

I believe the concept of the ATC, um, what they were doing and the part they were fulfilling in terms of educating career starts of kids that were in the high school system that were never going to be University graduates or whatever. The role they played was second to none. You know, it didn't need much tweaking to make it an excellent system. It didn't need much tweaking to make it an excellent system, but, like every other part of the Education Department, regardless whether it's University, Primary school, Secondary school, Pre-school, you've gotta have Government funding and Government support, and they didn't get the appropriate level of funding and support – they couldn't survive.

→ ***Reasons for Formation and Continuation:*** Confidence in the teaching program

→ ***Reason for Demise:*** Loss of Government funding

How did you consider the support of the college program – funding, administration, both external and internal?

Funding: They didn't get enough of that.

→ ***Reason for Demise:*** Loss of Government funding

Well the last two (of the college administrators) were both total non-communicators. How can you have… How can you have a CEO and your second in charge that don't even talk to the staff? Forget about the students – they don't even talk to the staff! *It's a joke!* Well, then, you answered your own question. (*Person named)* would not even answer phone calls. *(Person named)* would not answer phone calls to staff; she would not answer phone calls to parents – she answered phone calls to nobody. Nobody.

→ ***Reason for Demise:*** Poor administration

How relevant did you think this technical college program was in Western Australia?

I think it was very relevant. Just very quickly on that, just to recap, right. The theory training the kids got was second to none. They'd lost their rapport with industry, through the past and we were gradually correcting that. Once we come in, we were gradually correcting that because we started communicating and talking to the industry members. I also said to (*Person named)* at the time, in the early days: "Do not send kids out to work experience in their first year. Just let them do the college stuff, and we'll set up the workshop so

→ ***Reasons for Formation and Continuation:*** Confidence in the relevance of the program

First Level Coding

they physically do electrical work in the workshop as they would do in a real situation out in the field." That's why we set those cubicles up. Remember the cubicles we were setting up? Where the guys would actually do installations. They would do lighting, they'd do power-points they'd do conduits, they'd do underground digging. Everything. So what they would do, they would be supervised and do it in the classroom, which was exactly the same as true industry experience. Right? Sending the kids out with no knowledge whatsoever, no ability – they didn't even have licences, they were too young – and you send them out to an employer. They sit there twiddling their thumbs and sweeping floors and making cups of tea, so it's totally useless, they get nothing, and then, you have a bricklayer who signs them off! It was an absolute joke, right? We were starting to put a process in place that was going to work. We were starting to. And we'd already started communicating with all the…all the electricians and electrical companies around the district, to talk to 'em and tell 'em that we're starting again, and this is what we're doing, and they were quite enthused. There was quite a few employers that were more than happy, that when they're in stage 2, and they've got some experience where they can be given a job and they can… you know, they can work and learn, these guys were more than happy to take 'em, on for work experience. Right? That was going to put the program back on track. Which it had been derailed. Right, we were putting the program back on track. But, the unfortunate part is, that when *(Person named)* came there, just everything died. There was no communication whatsoever. You know, absolutely nothing. We wanted to have an industry night, where the CEO would actually talk to these guys. We had about 30 or 40 local electrical companies from the area that were going to come to our industry night. I couldn't even bloody get her to answer the phone so I can talk to her about it!

→ ***Reasons for Formation and Continuation:*** Unique college program

→ ***Reasons for Formation and Continuation:*** Support from industry

→ ***Reason for Demise:*** Poor administration

On a scale of 1-5, 5 being the highest, how successful do you believe the program had been on the basis of providing a source of quality apprentices?

Where it was when we come in – it was below 1. And I think that was acknowledged not only by us but the people that were there, (*Person named)* and…your own administrators. It was below 1. It'd derailed totally. *And when you finished, it was pretty high up?* I reckon that we… No I wouldn't…Look, we weren't at 5, we still had a pretty long way to go, but we'd certainly taken it back to about 3. Well, you were there… I think…Look, that last group that come in which no one other than us…They'd had exposure to no-one other than us. Right?

→ ***Reasons for Formation and Continuation:*** Perceived success of program

They, in the first 6 months, were ahead and had more knowledge, and they were up to speed with their units, because we had some discipline in the class and with the students from day one. We had completed, we had completed – we were ahead of time – we had completed…In that 6 month period we had completed about 9 months of work. And these kids were more advanced than the kids that had been there the previous year. These kids could do problem solving, answer questions, go out in the workshop to do work which was superior and above the ones that had been there now for 18 months, the 6 months that these guys were there and the 12 months period…previous. So that's how far I believe we'd come. In 6 months, these guys were better than the ones that had been in the system for 18 months, who did nothing but f****d around – and… and there was no discipline in the classrooms, and (*Persons named)* had them. (*Person named)* would say things to the kids like, you know, while he was teaching and he'd say: "Oh, don't worry about the maths, you don't have to worry about that. Don't worry about this, you don't have to worry about that." And then when they did their exams, when they did their tests, the kids'd say: "Oh, Sir, you told us not to worry about this, but we've got a ques…" "Yeah – don't worry about that question. Don't worry about that question". And then he'd walk around the classroom, and he'd…You know he'd have his answer sheet and he'd turn round and say: "Oh. Is that one right?" And the kids hear that when he says: "Is that one right?" obviously, it's wrong. So you have another go. And if you get it wrong again, you know, they cross it out, and all of (*Person named)* bloody questions were multiple choice or true-false. So you didn't have to know an answer you just circled, and he'd come round and if you got the circle in the wrong place you'd cross it out. You'd have another go and he'd say: "Is that one right?" The kids would tell ya. You know the kids'd say… You'd say: "Hey hang on a minute – you've passed this!" "Oh yeah, but…but…" And then they'd tell you <u>how</u> they passed. We're pickin' up the pieces and having to <u>teach</u> em'. And you're saying: "Mate, you've passed this unit. You've passed this unit. Why don't you know anything?" And then when they tell you, you know why they know nothing. They were taught nothing and they had to do nothing, and they passed tests without having any knowledge whatsoever. It was an abs… Why wasn't that picked up, why wasn't that dealt with along the road?

First Level Coding

→ ***Reason for Demise:*** Some low teaching standards

→ ***Reasons for Formation and Continuation:*** Advantage of School-based VET

What do you consider to be the main strengths of the program?

First Level Coding

Look, when the program's working right, which…it should'a been working right. And I know it was working right in the carpentry section, I know that it was working right in the automotive section. Why the electrical section was allowed to go this way I don't know. But when the program's working right, what you're doing is you're giving kids that are still in high school a bloody good start which gives them a huge advantage over someone who hasn't done any of this trade training. When apprenticeships come up and they leave school, these kids have got half their apprenticeship completed. They've got a lot of knowledge – a lot of skills. They're miles in front of the greenhorn, who's just left bloody school. He might have done very very well in his final year test, but this kid…this kid who's done 2 years at the ATC doing trade studies is miles I front in terms of gaining an apprenticeship because of his knowledge and skills at that point in time. It's a huge advantage – huge advantage.

→ ***Reasons for Formation and Continuation:*** Advantage of School-based VET

What weaknesses have you found, if any, in the program?

First Level Coding

I didn't see any weaknesses apart from the bloody administration.

→ ***Reason for Demise:*** Poor administration

What were your impressions of why the program failed?

Administration. *Funding?* Funding was…Administration was the big one. Look, if…Alan, between you and I, OK? – It's easy to turn round and say: "We need more money, we need more money, we need more money." That, that's the easiest thing in the world to say, right? But you have to manage your budget. And every mother has to manage their budget. You know, you've gotta pay the mortgage, you've gotta make sure there's food on the table for the kids and so forth. There's people that get $5000 a week, there's people that get 2000 a week, there's people that get 1000 a week, there's people that get 500 a week. They have to manage their budget. They live within their means – they manage their budget, right? We've got a college there. There are things that you can do to manage the budget. You know, you get…you get…the way you're paid…the way you're paid is that you get 'x' number of dollars per SCH – student contact hours. That's the way…that's the way the er, department pays the…the training organisation and funds it. OK? You can't…you can't live with classes of 6. You can't make ends meet. In TAFE, the gen…the generic numbers these days is about 16. OK, you can't have 16 in the workshop, but you know what you can do? You can have 20 in the class for theory and then have two lecturers in the workshop. There's…there's all sorts of things you can do to make the budget…to make the budget work. OK? They didn't have any of that. And I started talking about those sorts of things with *(person named)*. I says: "Look, in future, instead of having a group at the beginning of the year, a group mid-year or whatever, what don't we aim to get the numbers we need at the beginning of the year?" When you're doing the theory class, when you're doing the theory component, you have one lecturer that can have 20 kids. There's not a problem with that. You can do that in theory. But when you're out in the workshop, one lecturer cannot have 20 kids. But if you have two lecturers in the workshop, then overall in the average, over the year, it's like 15 kids in a class. Right? That's SCH you're getting and you're not paying teaching hours for which gives you money for other things, to get you equipment and so forth. They just…I don't know, they just didn't manage it right. *Or (Person named) didn't understand?* No, no, she didn't

→ ***Reason for Demise:*** Poor administration

→ ***Reasons for Formation and Continuation:*** Australian apprentice training system superior to many overseas countries

understand …she did not understand that at all. She had no idea. No idea at all.

What were your feelings concerning how this program compared with that in other countries? *Now, you mentioned you'd been to Russia a few times and thigs like that. Do you know anything about what programs they've got in Russia like this?*

No I don't. I do know the Italian training system, I know the German training system, and er…I went over to South Africa on nine occasions, not only for recruitment but…When I left TAFE, one of the things I did, I did quite a bit of work for a recruitment company, all right? And we did quite a bit of recruitment for Western Power, Horizon Power, Theiss, um…West Coast Energy, Alinta…You know, we went over to the Philippines but we did a lot of recruitment in South Africa. You get to know, by interviewing people and talking to 'em, and having all their training notes, and look at their level of understanding…Because, you know, we gave 'em challenge tests and things like this to deem whether they're suitable or not. And then, and then…Once we…How would you say? If…if you get 2000 applicants for 20 or 30 positions in Australia you bring 'em down to about 60 and then you interview those thoroughly and then you do a gap assessment in which you have to write a report to the employer that you're recruiting 'em for. So when you get to that last 60 you're really look at where they were trianed, how they were trained, what their levels of skills and knowledge is, what their deficiencies are…Because, being in the electrical trade – now I'm talking about electrical, right? But being in the electrical trade, they can't come here in Australia and operate unless they get a licence. So the first thing we have to determine is how far from a licence are they? And if they come to Australia on a 457 work visa good for 2, 3 years or whatever it is for someone like Theiss or Western Power or whatever, what gap training is required to bring 'em up to speed to be able to get an electrical licence in Australia so they can operate as an electrician. Right? And once you get down to that level you really do get to know how they've been trained, and to what level, and the level of knowledge they have and so forth. Zimbabwe uses the English system, and in the English system the training is

excellent. And those people from Zimbabwe, the gaps that they had to meet an Australian licencing requirement was quite small. We recruited quite a few people from Zimbabwe, we recruited quite a few from South Africa, and when we brought them to Australia, to get them over the line and train'em up so they could do their licence and test and get their licence, the actual gap training was quite small. Right? We recruited 135 people from the Philippines for Western Power. The gaps for them were huge. So what does that tell you about the training system? Huge, right? So, we've got a pretty good training system in Australia, and if it's implemented and it's done properly, we have one of the best systems. We have one of the best systems, there's no doubt about that. Before I left TAFE one of the last jobs that I did, we got a 51 million dollar contract with Quatar petroleum. We won the contract internationally to do the bloody training for electricians, fitters, process operators, instrumentation, coded welders. Five trades, right? I did quite a bit of the work and a lot of the um, submission for us to win the contract and entertain the Quatarans here and then went over to Quatar about 7, 8 times to help them set up the Australian training system, right? And interview and employ all their trainers – we had 135 trainers over there, from all over the World. Right? But when it come to the electrical we could only really employ trainers from Australia, England and places like that. And then we had to bring them up to Australian standards because we implemented the Australian National Training package over there and therefore they had to meet the Australian Training Qualification framework for us to be able to give the people over there, you know, the appropriate qualification at the end of their training. And that was another area where you really got to know the training ability of the people form the other countries, because you're working directly with 'em. And they'd got similar…They've got good training systems in Scotland, in England, ah, Ireland, ah. Germany, and…even India, which surprised us. But they're not…they're not trades people over there, they're 'engineers'. They're all engineers. OK? But the Philippines – we got some really good people from the Naval base – the American Naval base. They did a lot of training in the Philippines. And the training they got from the Americans believe it or not was quite good. But their own internal training outside of that Naval base training, where the

First Level Coding

Reasons for Formation and Continuation: Australian apprentice training system superior to many overseas countries

Americans run the school and everything, was very poor. I think it was more 'suck it and see' – the guys had hand skills, but they didn't have the knowledge as to why they're doing things. *With the GFC, do you think places like Italy and German, in Euro, sort of thing, have actually made a difference to the focus of education – have they steered more towards the technical side rather than the academic side? Would you say, because…* They have a big focus on the technical, they have a big focus on the technical… *Yeah, because the kids see that as getting a job, you know.* See, but their hand skills are very good, because they actually train them. You see their hand skills are very good. And that's what I'm saying. When you look at what happened in some parts of Zimbabwe, some parts of…you know, places that I've been – certainly some parts of the Philippines I did some recruitment for a couple of companies out of Malaysia and Singapore, right? I honestly believe that a lot of their training is 'look and learn', 'do and learn', but there's not the theory background behind it. You know if we…If we do something we wanna know why we're dong it, but we also want to know the theory behind it. All right? Anyone can turn around and say, talking Electrical again. If I run a wire from here to there and I run a wire from here to there and then I hook it up here and I put it through a fuse and I connect it to the mains, if I switch it on it's going to work. Right? But do I really know how much current's gonna be drawn in the circuit? Do I really know…Do I exactly know, given the voltage and given the resistance, given this that and the other how much current is going to be drawn? Do I really know what size fuse I have to put in? And when you ask questions like this and a lot of people that've been trained in some of these other countries or not untrained, you know, 'See and do' rather than understand, because very few of them know what is the purpose of the fuse. "Oh, the fuse is to protect the equipment". No it's not, the fuse is there to protect the wire only. Now the fuse has to be able to blow before the wire gets hot. Othewise you gonna melt the plastic. The fuse is not there to protect the circuit. A fuse can protect 15 circuits, but you need to know the current of each, so you make sure the current of all those circuits put together is going to be less than the current-carrying capacity of the wire, which is…and then the fuse is going to…to protect the wire, it's gotta be a size that's gonna blow before the wire gets hot. You see?

And these are the things they don't know. And it doesn't matter how you ask the question or how many times you ask the question or who you ask the question of, these people don't…They're incapable of answering your questions. This is in several countries. Like the Philippines , like Malaysia, like Singapore. Aah, certain parts of Zimbabwe. The ones from Zimbabwe that have used the Scott-Bett system – nicely trained, very well educated. The ones that are electricians that they've been taught there but they haven't been taught under the Scott-Bett system don't have much in the way of knowledge. They've got the skills with their hands but they don' t have the knowledge. So they do things but they don't know why they're doing it. Right? But here in Australia, the thing is, look, we've got an excellent training system. I haven't seen anything anywhere else that is better than what we've got. Equal to what we've got? Yes. Better than what we've got? No.

That's a fantastic answer. Thank you.

Interview with Former Board Chair

First Level Coding

Being academically inept as I was, I left school at 14 to take up a trade, and I realised that learning a trade was totally different from school, and there was no seamless transition between the two – there was no ramp to go up, it was just stop going to school and start going to work, plus I didn't like school, I enjoyed work and I enjoyed my apprenticeship and so on. And I took a keen interest in training, and I went to night school for 16 years after I left school – high school, er…to learn as much as I could and this that and the other, and I got quite well known amongst the various bodies around and so on. So I have plenty of experience in trade training without being employed as a trade trainer prior to the advent of the Australian Technical colleges, and I served on the State Government for 10 years – a State Government er...committee which they actually paid me to do – which was, er... The Skill Information Taskforce, advising the State Government – advising the Minister Ljiljanna Ravlich on what industry needed in terms of trainee and apprenticeships. I was also Chair of Automotive Training Australia for Western Australia, and I happened to notice the newspaper: Expressions of interest called for 'Not for Profits' – applying for a grant to establish an Australian Technical College and a brief about how they would work. And I thought: 'What a clever idea!' At the time, I was the president of the RAC. Now the RAC is an overtly wealthy organisation which is owned – it's a...it's a 'Not For Profit' owned by its members, it's a mutual, so they were generating all these profits every year and looking for things to plough them back into. So I thought: 'What a great idea to have an RAC Technical College'. Because the RAC brand has value, and I think a lot of parents would be happy to have their son or daughter trained in an RAC training environment. And I thought we could do this together with the industry – the automotive industry – and I was wearing two hats at the time – Chairman of the RAC; Chairman of Automotive Training Australia within WA and also on the board of the Motor Industry Training Association, and a member of the Motor Trades Association as well. I got a think tank together: Motor Industry Training Association, MTA, RAC and Automotive Training Australia. I said what we should do is form a consortium to put in a bid to get funding for...to establish an RAC Training Centre...er...Technical College. Well, the RAC board thought I'd just descended from another planet! "That's not our core business!" "Well excuse me. You are owned by 720,000 West Australians all over the age of 17." - Because if you haven't got a driver's licence – you haven't got a car. – "They're all adult people. You are owned by 720,000 of them

Reasons for Formation and Continuation: → Government funding

and that covers a wide spread of the community. And I think it would be great for the RAC to be seen to be putting something back into society by training young people in the trades. And particularly you could develop a whole stream of automotive people that could then be trained to an RAC standard, who could go out into the private enterprise workforce in the automotive and develop very good quality service and repairs on people's motor cars." It didn't get up. I'm driving home one evening from wherever, and the mobile rings, and it was a guy on the Terrace who is enga...His business was called 'Board something'. And when comp...Corporations wanted members for their Board, they would engage his service and he would headhunt them. And he rang up...And he knew me because the RAC used to use him to find people for different roles or something. 'Board Advice' it was called – Mike something. Anyway, Mike rang and he said: "Oh *(person named)*, I wondered if you'd be interested in chairing an Austra.." Oh no, sorry. "...in serving on the Board of an Australian Technical College." I said, well, I'm certainly interested, because I think the concept's great! I've been trying with the RAC and they said 'Not interested!'" "Well I'll arrange it for you..." So off I went. And I went to see a guy in Malaga Way, that ran an organisation called 'Jobs West' or something or other..'Stirling Skills Training' trading as 'Jobs West', and they had already received the funding approval to establish the Australian Technical College and they needed to establish a separate board, and they asked me to serve on the board of their parent – Sterling Skills Training – which I agreed to do. The second meeting they asked if I would be Deputy Chair, and I'd met them before, so I knew what the responsibilities are. And then they said would I establish...would I Chair and establish this separate Board to be for the Australian Technical College. Now, at that point in time...which I agreed to...at that point in time, they were already irrevocably committed on a two-campus model, which I queried: "Why would you be doing this – why would you put in one campus in *(Name withheld)*, and one campus in *(Name withheld)*, when they're both in that Eastern corridor, and relatively close together?" I subsequently found out the reason why. They were both marginal seats in Federal electorates. Marginal seats in Federal electorates held by Liberal members and the Howard Government wanted to fund something to make the people in those electorates smile, and therefore vote for them. So it was being used, I discovered then, as a political tool of manipulation. I then also discovered that the then opposition – and I cannot recall who the Leader of the Opposition was, it might have been Rudd, I can't be sure. Whilst Howard was proposing to the Federal Parliament the Australian Technical College Act, which would have to get approved by the Lower House and then The Senate, the then

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Reasons for Formation and Continuation: Government funding

Reasons for Formation and Continuation: Political Expediency

Reason for Demise: Political Expediency

Opposition in the Parliament was saying these exact words: "When we're in Government, we'll shut them down!" Why did they say that? Because it was not their initiative. Why did they oppose it? Because their title says: "You are the Opposition – your job is to oppose". This is what I don't like about what I call a 'Flawed Democracy' – I love democracy, I love Australia, and we're better than many democracies in the World, but we 'aint perfect. Why we don't call them 'the Shadow Government' and so everybody can be a 'shadow' rather than an 'Opposition' and have to oppose. Anyway, that's the system we inherited from the Brits, and that's what we can work with. So here it was – a political football from day 1. Here in Western Australia, I then discovered, when I got in...when I became Chairman of this...this um... separate Board, because the Federal Government had insisted under the funding agreement that a separate Board be established to oversee the college and all that sort of stuff. Subsequently I led a breakaway, because I realised...I came to realise why the interest that Stirling Skills Training had in it – and Stirling Skills Training were seriously over-committed and under-funded at that stage - and I could see that the Australian Technical College would be a risk if they stayed together. So I proposed to the Federal Government that they be separated and ultimately that happened. And at that stage, there was a commitment, the...the Federal Government had funded the purchase of land at *(Name withheld)*, and had funded the building of the premises and equipment equipping it in *(Name withheld)*. All fully funded in a written funding agreement between the Australian Technical College Perth South and the Federal Government. But because the Federal Government had demanded that they establish two campuses, each in marginal electorates, the question was, what about the funding for the second one? "Oh, well there is no funding for that!" "Then how can we go ahead and build it?" "Well, you have to wait until the second tranche of funding." "But you expect us to start the two now." "Yes, well..." So the long and the short was: the land had already been identified; it was Crown land; Alana McTiernan, who was a Labor Minister in the Gallop Government er...was very...er.. was very, very positive about this campus being in *(Name withheld)*, despite the fact that her counterparts in Federal Government saying "When we're in Government we'll shut them down." She was saying – (unintelligible) the Gallop Government came after the Carpenter Government -...She was very supportive of it, and she, as Minister for Infrastructure, er...was er...instrumental in having the land...er...given Green title and available to sell to the Australian Technical College. But the Australian Technical College couldn't use the funding that it received from the Federal Government to spend on *(Name withheld)*, because

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Reason for Demise: Government funding problems

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that was all for the *(Name withheld)* campus. So we had to get a developer to buy the land in *(Name withheld)* in their own name, in their own right, to build the infrastructure of the college, the facilities to our design, and to lease it back to us until the second tranche of funding came through. And as each funding module was four years, we entered an agreement with a property developer that he buys the land, he does the development, we lease it, and then – for four years – and then at the end of that four year period, we buy it off him, for then market value, based on three valuations. He said, OK, that's fine, and we went ahead and did it. Howard is still Prime Minister. The funding for *(Name withheld)*'s coming through, and there would be funding for *(Name withheld)*, but only per capita funding, and recurrent funding to deliver the training and education but not for infrastructure or capital expenditure. So that was all being done on a lease basis. Um, the bill as you are aware in modern times with rising prices and the time of concept to the time of completion with rise and fall clauses in the building contract. And it became quite evident with the cost of building *(Name withheld)*, and equipping *(Name withheld)*, it was gonna be significantly more than originally envisaged because of what was happening – labour costs were rising because the resources sector was putting trades people up the top there, and they said: "why accept the rise - we can get plumbers and electricians work for suitable people." And so funding was tight from the beginning. Er...whilst...whilst the Liberal Government was still in office, a guy named McGowan became the Minister for Education, in Western Australia under the Carpenter Government. Geoff Gallop had resigned - it was still a Labor Government and Carpenter was the Premier because Gallop resigned citing depression. We...at the ATC, we were in our second year of operation, and as you know, no-one graduates until they've been there two years. So there were no graduates at that point in time. So he – McGowan – issues Press Release saying what a waste of money this is because they've been in business...they've been open for eighteen months and not one student has yet graduated. Well, you're absolutely right because it's a two year program, but he didn't say that in his Press Release. The headlines came out in the newspaper about what a failure it was and this that and the other, *(2 November and 16 November, 2007)* I got onto Bethany Hyatt, who was the author of that and said "This is a nonsense. Before you write anything about the Australian Technical College in the future, don't listen to politicians, ring me," which she agreed to do. I said you've got this so wrong.... (unintelligible)." I saw Mr. McGowan. I invited him to come out and look at the place. He said he would. He didn't. I saw him again. I invited him. He said he would. He didn't. I saw him again, I invited him, he said he would, he didn't. I saw

→ ***Reason for Demise:*** Political Expediency

First Level Coding

him again, I said: "Mark: When are you coming out to visit my college?" He said: "*(person named)*, I was there last week." I was gobsmacked. I thought: "Why didn't (*Person named)*, as the CEO, tell me that the Minister was going out there so I could have gone out and met with the Minister?" So I asked (*Person named)* and he said: "I didn't see him." I subsequently discovered that McGowan had gone to *(Name withheld)* and driven past the College but did not venture inside! *Good Heavens!* He lied to me – he misled me, because he was singing from the Federal Opposition's hymn book: "When we're in Government we'll shut 'em down!" So he did everything he could to make it become still-born – for political reasons, not for the benefit of the students or the community or whatever. That man is now leader of the opposition in Western Australia, but I'd rather have him as Premier than the bloke we've got. The bloke we've got is hopeless. Anyway, that's politics, unfortunately. There then was a change of Government, and in came the Rudd Government. And Gillard was the Deputy Premier - Deputy Prime Minister, and Minister for Education and Training. She called a meeting in Melbourne of all the CEOs and all the Chairs of all the Australian Technical Colleges in the Nation, of which there were 28 or something at the time. Prior to that change of Government we were having dialogue with the Government about opening additional campuses. We were already having meetings with the Council Mayor of Kwinana – the Kwinana Council already identified land they could make available to us to build a campus. We were already having dialogue with the City of Swan. The Federal Government was talking about ultimately having a five campus model – up towards Joondalup, out towards Midland, down on the Kwinana strip, and the two that we had. And the model we had was working well. By taking the students to do the four hours of their day doing the academic and the rest of their day doing trade training and vice versa – the five weeks out in the workforce...Everything... Industry liked it, Mums and Dads liked it, students liked it, teachers liked it, trainers liked it because it was... Everyone liked it. It was a win-win-win for everybody. The only one that didn't like it was the Federal Opposition who is now not the opposition, but the Government. I went to the meeting chaired by Gillard. I sat down and I listened. And I noticed that the culture within that room was totally negative. They were all saying: "Poor Me, poor me – No future, we may as well shut down now." And I thought if I stand up and open my mouth and say we can do it this way or that way, I'd just be wasting my time, so I shut up. But at morning tea time, I spoke to a woman who was the manager of the Australian Technical Colleges in Canberra, in that department, and I said to her: "Look, I haven't spoken because of this, this and this, but I can

Reasons for Formation and Continuation: Unique college program, Confidence in teaching program

First Level Coding

see a way forward to allow colleges to survive...dadadada." We sat and talked one-on-one and we worked out a program. I then went to visit Gillard..(unintelligible)...I went to visit Gillard and said: I need two point something million dollars extra to complete doing this... "Oh, there's no...there's no funds available." "No, no, don't tell me that. Don't tell me there's no funds available – I won't accept that. Tell me that you are not prepared to make the money available for this purpose, and I will accept that and agree that it is your right to determine how you spend the money. But don't tell me that you don't have the money to spend because I don't believe you." "Oh no, it's not true!" "Now, tell me you won't make the money available and I'll make the media my best friend". Gillard, to her credit, gave the college an extra 2.4 or 2.8 million dollars over and above what the Howard Government had pre-approved in that four year funding, but said: "There's no more money. That's it. There will be no more." When the four year lease ended on...on *(Name withheld)*, the developer said: "Where's the money? Here's the agreement that says: I'll develop it, you'll lease it, then you'll buy it." We had two choices: Reneg on the contract, walk away, close *(Name withheld)*, send the kids home, sack the staff; or find another way. I tried to get money from the Federal Government, and I tried hard to get money from the Federal Government to fund purchasing from the developer. At that time Technical Colleges...Australian Technical Colleges around Australia were falling like flies. From the 28 it shrunk down to about 7. How many's left now I don't know. Probably one or two, if any. We went to the bank. We went to all the banks. We went to all the four major banks to see if they would fund us – we showed them our budget and how it worked – none of them were interested. The only bank that would, was the Bendigo Bank. And (*Person named)* had a contact in there, and (*Person named)* made the appointment – we went to see him, to see this guy. And they agreed to fund us, because I said: "This'll only be a short-term things until we can get funds from the Federal Government ultimately to...the Government we've got there – the Governments change – the Government we've got there will not be there forever. So once there's a change at Federal level, we'll get funding again to complete this project that we've started." Then, um... we hit those snags with the...what I believe the bad choice of CEO. When there was no audit available and the (?) got the better of time and all the promises to get the audit done failed, the State Government lost confidence, and er...they didn't offer us any assistance. Um...and the bank were asking for their money. But...so...what caused the demise of the Australian Technical College Perth South, it was a combination of... initially, being a political football. When McGowan was saying "These people are

Reason for Demise:
→ Government funding problems

incompetent" and so on and "The Federal Government will shut them down", - these things were being published in the newspaper. How hard do you think it was to get Mums and Dads to sign their kids into a college that's got no future, according to what they read in the newspaper? How hard it was to get staff to come out of the secure State teaching system, to go out there when if they read in the paper that "We're gonna shut 'em down! – When we're in Government we'll shut 'em down"? It made it very very hard. It made it very hard to get employers to take on apprentices from the college when they can read in the paper that the college is going to be shut down by the Federal Government when they're in...when they're in Government. So the whole thing was...It was all politicised. If it hadn't have been politicised, everything would have gone swimmingly and with all the funding worked properly, we wouldn't have been exposed to the bank the way we were. That...that's on the political side. But then, to add insult to injury, two bad choices of CEO back to back, at a critical time when funding was tight and drying up. And neither Feds nor State would help. So I reached a point where I had an agreement in principle...Wayne Collier, the former long-term CEO of what was called, now Polytechnic West, was called Swan TAFE. Year in, year out, year in, year out he had been putting forward an application to the State Government to get funding to build a campus in *(Name withheld)*. And year in, year out, year in, year out he'd been rejected. While at the same time, (*Person named)*, who was the CEO of Joondalup – what's it called now? – something else – it was West Coast College of TAFE, now called something else – er...she got funding to build a campus at Clarkson, which is on the Northern extreme, where *(Name withheld)* is on the Southern extreme of the travel system if you like. You can imagine how Wayne Collier felt. "Why should she get funding to go to Clarkson, to the new developing area and I can't get funding to go to *(Name withheld)* where those kids need something?" We leased part of our excess capacity in *(Name withheld)* to Swan TAFE - a section that we didn't need – extra space. So when, inevitably, I could see that the bank wanted their money – the State weren't prepared to help, the Feds weren't prepared to help – I went to see Wayne Collier and I said "Would you like to hedge us at the *(Name withheld)* facility?" He said "Let me tell you what....In the last State budget they allocated 25 million dollars for a future footprint in *(Name withheld)* for Swan TAFE." So, he said "I know the funding's already pre-approved, so we just need to agree a price." So, he went to see the Minister – Collier. Collier said: "Sounds good to me. It means we can do it at a lot less cost than it would be getting the land and...and we can be up and running sooner". And I said "If he can do

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Reason for Demise: Political Expediency

Reason for Demise: Poor administration

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that, it'll settle our debt to the bank and we can consolidate down to *(Name withheld)*, and we've got extra land there that we can build extra facilities on so we can still have the same number of students. And that makes it more cost-effective." That's the way it should have been done, on a single campus rather than a dual campus. The Government went as far as getting the Valuer General to value the site. We agreed on price. It wasn't the price I wanted – it was the price the Government were prepared to pay, and it was more than what we owed the bank. We owed the bank 8 million and the Government were prepared to pay 10.5, whereas I was chasing 12. With the extra money we could build the infrastructure down at *(Name withheld)* so we were going to be sweet. And we didn't pay no rent – everything would be freehold, no interest to pay. Um, when it came to – oh, also, Polytechnic West then called – sent people down to measure up, top plan where they're going to put equipment, how they're going to change...internal renovation – all that was going on. And then, at the 11th hour, the State said "We haven't got any funds. Treasury wouldn't release the funding." *It had already been approved.* In principle. There'd been nothing signed. The funding had been allocated in the forward estimates over four years, but then Treasury tightened its belt and said that they weren't going to make the funding available. So the opportunity to sell the campus in *(Name withheld)* to the State Government, for them to run as a TAFE fell over. And from there it was just a.... *It's so sad.* Very sad. Yet it was a model that really worked well. I could tell you some stories Alan that would bring tears to your eyes. I went to the first student – parent open night – evening. As Chair I had a speaking role. Er...I didn't know any Mums and Dads there. As I walked out to the car park this woman ran up to me and said "(*Person named)*, I'd like to thank you for what you've done for my son." And she had this little bloke – kid – behind her. And I said "Oh, don't thank me. Whatever's happened to your son, I haven't done. The staff have obviously done..." She said "No, I want to tell you my story". She said "We live in Midvale." She said "I've got four children – he's the youngest. If he'd have been the first born, I wouldn't have had a second or a third or a fourth." She said "He has been so disruptive, that it's affected our entire family. He was causing a breakdown in the relationship in our family. We were always in conflict." She said "I even got to the point where I hated him, and he's my own son." And she said "Do you know how hard it is for me to say that I hate my son?" She said "Every morning he had to go...he had to go half a kilometre from home to school in Midvale on his bike. Every morning there were tears. There were fights. There was trauma. There were tantrums. Because he didn't want to go to school. And I was making him go to

Reason for Demise: Government funding

Reasons for Formation and Continuation: Unique college program withdrawal

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school. Our quality of life was diminishing rapidly." She said "And then, he decided he wanted to go to the Australian Technical College. And he started there six months ago." She said "Now I'm proud to call him my son." She said "No more tantrums. We now have a united family again. When he comes home at night we now turn the television off and he entertains us each evening with ...he's so excited what he's doing." She said "In the morning it's not me pushing him to go it's him pushing me to get his lunch ready: 'Mum I'll be late, quick, I've got to get to....'". And I said...so...I said to the young boy then, I said to this young kid "What trade are you doing?" He said "Steel framing". So I knew he had to go to *(Name withheld)*. That's where 'Steel Framing' was being delivered. I said "How do you get there?" He said "One bus and two trains. Bus from Midvale to Midland, train from Midland to wherever, then get from there to..." I said "How long does it take you?" He said "Two hours". I said "So that's an hour each..." He said "No, no no. Two hours each way." So here's a kid spending eight hours at college, two hours going to, and two hours coming back, that's fourteen hours a day, and he's happy to do it. But he wasn't happy to spend six and a half hours going to school. I immediately identified with that kid because that was a carbon copy of me. I hated school so much, that I used to play truant, and because the school had only ever seen my mother's signature, when I was sick with a sick note, I would forge my father's signature and I would sometimes be away for three weeks at a time. But when I went to work, as soon as I turned 14, I just loved it. Loved doing things. And I started going to night school 'cause my boss said "With results like you've got here the condition of me giving you an apprenticeship you've got to go to night school and do trade maths, English expression and whatever and I started going to night school and I kept that up for another 16 years, because I got hooked on learning. Because I could achieve what I wanted to do, not being taught what I had to. That's when I discovered, with due respect to yourself as a teacher, I came to the conclusion, I might be wrong, that you can't teach anybody anything. You can only create an environment in which they have a desire to learn. And when I went to Technical College, there was an environment – I wanted to know about motor cars, engines, gearbox, brakes, bearings, many more things – exciting! And that made me realise that there's a <u>need</u> in society, in our community to have colleges like the Australian Technical College, which are doing a bloody excellent job in taking these kids who are not academically inclined...When we had employers who were making comments, statements like: "It's so good to have these kids coming to us, 'work ready' – when we take them they'll become a full time apprentice. In future, we won't take any kids off the street we'll get all our

Reasons for Formation and Continuation: Unique college program

Reasons for Formation and Continuation: Unique college program

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Reason for Demise: Political Expediency

kids from the Australian Technical College, because they're 'work-ready' they're already sorted – the failures have already dropped out." Great! And if only we could have had bi-partisan support at Federal level, the demise wouldn't have happened. It's not just the demise of Perth South, it's the demise of Australian Technical Colleges Nation-wide! And all that money wasted – it's been left to go to waste. How do you...*We know what it's like in Australia. Um..You're probably aware that overseas, places like Germany, they've got...there's, because of the GFC – they've felt it far worse than we have* – Of course. *There's...there's been a very, very strong shift towards the technical education, rather than the academic education, so, um, the kids and the parents and so on – the whole of society sees the technical education, or the apprenticeship part as being a way to get employment. They can actually get their kid into employment. So there's this strong shift towards that, so, um, there's this emphasis on technical colleges and so on in Germany, Poland and other places throughout the World. How do you think on the...we, in Western Australia, of all the States, Western...and maybe Queensland – we've got this so-called Mining Boom that we've had, and we still need apprentices and yet Kevin Rudd has taken the funding away. And yet I heard recently that Tony Abbott and so on has come in and they're talking about putting funding into Technical Colleges. I don't know how good or if it's just talk, because they lie. But, er, how do you think Australia compares with overseas with regard to this...this shift towards technical education?* Well, you go through phases... and it depends on who's...who's in control – it's not...it's not based on any particular political um... side, whether it's Labor or Liberal, it's a matter of the attitude of the decision makers at the time. There's a push in certain decades that everybody should achieve a high academic education. The problem is, as a former employer of apprentices, um, I've found that those that have the higher level of education don't want to work on the shop floor, and they tend to fail, they're not interested. The kids that come...that used to come to me..um...that didn't have high academic qualifications, made damn good tradesmen. But I used to insist, as my boss did to me, I used to get them to sign this thing – they had to write me a letter – well, the letter was pre-written – and they had to date it and put their signature at the bottom. In consideration of you offering me an apprenticeship as a motor mechanic – it might be a spray painter, it might be...dadada – I promise that this, this, this, this, this – and I promise to go to night school to do at least two subjects a week for the entire period of my apprenticeship. It was a 5 year apprenticeship in those days – and the last sentence said: "...and I promise I will not let you down," and they'd sign it here, in front of their parents. I'd

photocopy it, give a copy back, keep a copy. I've got some of those still on file in my archives. And then every day when they came to work, in the first year of their apprenticeship, because they would be junior, there was a photocopy sheet that had ten daily tasks they had to do. Start of the day, at the close of the day, and gaps in between with lines – and when you get to this point you then go and report to the workshop manager and he will give you instruction on..on what to do, assisting mechanics and this and that and so on...So the first thing would be in this job: check the oil; start the compressor; you know, do these tasks, check they're working right. At the end of the day, turn the compressor off, turn all the lights off, make sure it was done, dadada. And in between, he would then write me a simple story of what jobs he did. And at the bottom would be a clause saying "I have", slash "I have not let you down today". And he would sign the bottom. And he did it every day – he – each of them – did it every day the first year of their apprenticeship. Some of them turned out to be excellent. Some went on to be Technical School teachers, business proprietors in their own right or whatever. But they didn't have high academic qualifications. They came to me when they were 15 years old and things like that and they went right in. And when I got kids that came when they were 18 years old, they didn't want to roll their sleeves up and get down on the dirt. They saw themselves above that. That was beneath them. You know what I mean?

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What was your feeling concerning the professionalsim of the administration and teaching staff?

I think we had some excellent people there. I think with some of the administrative people, not all, but in some of the administrative people, there was some lacking.And I mention that because particularly two CEOs that didn't make the grade. →

Reason for Demise: Poor administration

What was your feeling concerning the teaching standard? What was your level of confidence in the teaching program?

The teaching standard I thought was well…Not sitting in the class I don't know but the feedback I was getting from er…parents and employers – I thnk the teaching standard was excellent, because my understanding is that the learning part was programmed to the technical outcome they're having in the afternoon. If they're doing maths in the morning, so it wasn't just learning maths for maths sake, you'd be learning →

Reasons for Formation and Continuation: Good teaching standard

maths to apply in a situation. I recall when I was a 13 year old, Pythagoras' theorem. 'The square on the hypotenuse equals the sum of the squares on the (other) two sides' – I thought: "What the hell am I coming here to learn that for because it's not…I'm going to be a motor mechanic – I'm never going to use it". How wrong was I, because we're doing steering angles – I didn't know that back in the day….But, I now realise the importance of it. I didn't then. But these kids that were doing it in the morning and then going into the work environment in trhe afternoon, and having to work out the angles for a roof, and various other things they were doing, it suddenly makes sense, the penny drops, and then they become a sponge…And so I think the teaching standard was excellent, and the level of confidence in the program was very…it was high.

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Reasons for Formation and Continuation: good teaching standard and confidence in program

How did you consider the support of the college program – funding, administration, both external and internal?

Funding was politicised. That was really our Achilles Heel.

Reason for Demise: Funding problems, political expediency

How relevant did you think this technical college program was in Western Australia?

Well, I think it was crucial! Because it had the potential to seriously address the skill shortage. In a time when the State was 'soaking up' school people at such rapid rate you couldn't get tradesmen in Perth to fix your leaking tap because all the plumbers have gone up there. *What would you say to somebody that said that: "Well, we've got TAFE haven't we?You know, why do we need a Technical College?"* Good point – can I come back to that? *Yes, OK.* I didn't realise this until we started at looking at the Australian Technical College model.

Reasons for Formation and Continuation: Supply of apprentices during the Skill Shortage

On a scale of 1-5, 5 being the highest, how successful do you believe the program had been on the basis of providing a source of quality apprentices?

I would think that it was probably a 4. I think we had some excellent outcomes, some mediocre outcomes and a couple of dropouts, but the number of dropouts was very low I think. The main strength of the program was, I think, that it delivered

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an apprentice to an employer, who was work-ready, who had already gone through the phase of "Is this the trade I really want to be in?" When you look at the number of dropouts we had at the Australian Technical College, compared to the 42% or something of all the apprentices that signed up statewide, in the first year that dropped out, ours was very very small. And that gets back to the TAFE system – It's not…I don't blame the TAFEs for it, I blame the lack of integration of training and education. I remember the day when Geoff Gallop appointed Alan Carpenter as the Minister for Education and Training. I went up to Alan and congratulated him and said: "Alan, this is fantastic." Because no longer do we have a seamless transition. Here you've got teaching; here you've got training, and when the kids leave school, they've got to go up a vertical cliff, and then go into the workplace. Whereas there's a synergy – if you're the Minister for Education you can...you can seamlessly integrate them in. And then along came the Australian Technical College that did just that because it took them at school age for the last two years, gave them the last two years of academic, and the first one year – they had them for two - but the first one year of trade training because they fill it - at school, they go into the workplace, already a valuable asset to their employer. And already sorted in their own head – "this is the career I wanna persue." Not "I thought this is not really what I wanted to do I'll try something else", and drop out, and drop out. That's what happens in the State system.

Reasons for Formation and Continuation: High regard for apprentices produced, and lower comparative dropout rates

Reasons for Formation and Continuation: Advantage over state school VET system

What do you consider to be the main strengths of the program?

What weaknesses have you found, if any, in the program?

I don't think there was a weakness in the program. I think the program was excellent, the way it was constructed. The weakness was in politicising the funding system. *Yes I got that.*

Reason for Demise: Political expediency

What were your impressions of why the program failed?

Well, it failed because of all that....

What were your feelings concerning how this program compared with that in other countries?

Well, I don't have a broad knowledge of how it works in all the other countries, but I am aware of the fact that I think that

Australia has gone through phases of focus on academic. And then somone said "Oh let's look at the trades" – as an afterthought. Always...well, not always – most often as an afterthought because of a looming, well not looming, but because of a real, school shortage. It's a sad case – we won't go through that. What I said to Alan Carpenter when he became Minister for Education and Training, I said: "Alan", and before the Australian Technical College came on board, I said: "Alan, we have to start training people who are not academically inclined, earlier in their life before they leave school". Before this concept had even... I was aware of it. And I said: "What we need to do, is when the kids reach year 10 in school, we need to expose them to what an academic career really means and the job opportunities you have, what a skill-base career really means and what job opportunities they have, and then ask them, to dwell on that – think about it, discuss it with their parents, whatever, but then to come along to school and say OK, those that wish from this point on to pursue an academic career to the left, and those that want to pursue a school-based career to the right." And then from that point on you start delivering different levels, different things. So the ones that go to the side that want to be academic, you can start teaching them, in year 11. If it's automotive, for example, and I use that because I come from the automotive industry – parts recognition. So they can recognise a wheel cylinder, a master cylinder, a cylinder head, a cam shaft, a crown wheel, a pinion – this that and the other. Component parts – they become familiar with what they look like and what thet're called. Then, in the next year yo start teaching them the principal of operation. OK, so it's abrake master cylinder. What does it do, and how does it do it? It's a brake wheel cylinder, or caliper. What does it do, and how does it do it? It's a power steering. What does it do, and how does it do it? So that when they leave school and go into the workplace to pursue plumbing, electrical, automotive,whatever – Alan, because I'm automotive I'm focussing on that. When they go down there to strart an auto apprenticeship, they're familiar with the terminology – they can look at a part and know what it is – they know what it does. They're halfway there. They've done it in high school! That's what we should be doing. But then the next Government came along and they divided education and training and separated them again and put them in different bloody buildings! So they can't even talk to eah other!

What do you thnk of the vocatonal education they do in schools at the moment? Is that going any way towards creating a remedy to the skills shortage? Yes and no. Now that was the Rudd Government's answer to the ATCs. We would do it this way – not that way. Now, I argued at the time: "Look, any

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money spent on training is good, so I won't knock it." But when you come to spending it, you can do it better or worse. Now, if you think that throwing money at your local high school to deliver VET, it's more deep than you think, because, OK, you're going to give them money for infrastructure. They can build a workshop. Now you've got to equip it. The equipment you put in to teach electrical is different from the equipment you put in to teach tiling, plumbing, bricklaying, automotive, carpentry, joinery, cabinet-making. It's all different. So you would need to have a number of workshops equipped with a number of equipments. And then you've got a technical college. But you've already got them there anyway. So it would make more sense to me to have a nucleus where you've got school A, school B, school C, school D. And here, you put a training facility, that all the schools...Now, if you're going to do that, you may as well call them ATC, because that's what it is. Now if you do that, you can still have the kids here doing their year 11 and 12 here if you want to – send them here to do their training. But if you put one little thing here and you call it... you call it carpentry, and one here and you call it plumbing, one here you call electrical, and one here you call automotive, then you've got kids going to this school, kids going to this school, kids going to this school, OK – you've got no choice. If you're going to that school you're going to do carpentry and nothing else. If you're going to that school you're going to do plumbing and nothing else. If you're going to that school.... But if you have a nucleus here, they can choose what they want to do, so some might say: "I want to do carpentry, I want to do automotive, I want to do that..." That would work. But giving it to the schools individually, the next problem they've got is this: You've now got the infrastructure. You've got the workshop built. You've got some equipment in there. Now you've got to get some trainers. Are you going to employ a motor mechanic to teach bricklaying, to teach plumbing, to teach carpentry? No. Can you afford – is your funding set up to employ a mechanic, a plumber, an electrician, a carpenter, a bricklayer? No, it's not. So it's not going to work. The ATC model is far better than the VET in school one. But the VET in school is better than nothing. When I went to Kent Street high school – I went for two years – it was the first time I saw any VET trade training. Tuesday afternoon, we would do woodwork, Thursday afternoon we would do metalwork. They were the best two afternoons in my school days. Loved it. You can teach...All the boys at Kent Street in those years did that. Girls went and did domestic science on Tuesday afternoon, and then sewing, dress-making, what have you, on Thursday afternoons, but the boys went and did carpentry, or, er... metalwork. And that was good for me because I enjoyed it. So that was good, and then that went

Reasons for Formation and Continuation: Advantage over state school VET system

away – schools didn't have that. Those things and then somehow came back with it because we need it, and it all seems to be a knee-jerk reaction, not a forward plan, but in a reactionary way.

Thank you very much.

Interview with Former GTO Manager

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What was your feeling concerning the professionalsim of the administration and teaching staff?

I think we had in ATC a uh, high degree of professionalism in the administration and the teaching staff. It was patchy though, it wasn't universally professional across all the areas and it probably wasn't the sort of thing that could be easily covered for and I think where there were deficiencies they were quite easily exposed because of the size of the ATC. I think small organisations mostly suffer from that. That's been my experience.

Reasons for Formation and Continuation: High degree of professionalism

Reason for Demise: Small organisation problem

What was your feeling concerning the teaching standard?

I think the teaching standard was quite high. I think the teachers were very committed – I think that probably relates to the first question as well. There was a high degree of professionalism because of the commitment among the staff. And so I think everybody came – you know in my experience of when I worked at the ATC was that the staff that I worked with were very committed to the model, and they loved the concept of blending the academic with the technical, um, and they could see what was happening with the students and so they were taking in many cases very disadvantaged young people and providing them with a focus for their education. And I think that was self-perpetuating for the staff, so they could see the success they were having and that motivated them.

Reasons for Formation and Continuation: Good teaching standard

Reasons for Formation and Continuation: High degree of professionalism

Reasons for Formation and Continuation: Staff support for program

What was your level of confidence in the teaching program?

It was… a couple of aspects to it. I think the WACE program which delivered the academic program was very strong and it was a program that was, the requirements of the trade were often translated into the academic program and so the students themselves they could see the connection between what they were learning in the school program and what they were applying in the trade program. It's often more difficult though to take that and to see the reverse. So my thinking is in the teaching of the trades we had such small numbers of staff in each trade. 'Cos that was one of the deficits in the model was that it tried I think to cover far too much ground. Where you had five trades – when you think back on it we had the two

Reasons for Formation and Continuation: High confidence in teaching program

Reason for Demise: Small organisation problem

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trades at *(Name withheld)* and the three trades at Armidale and in trying to cover those effectively for what was in effect under 100 students wasn't it? It was really hard and so you're expecting then for the teachers without a lot of support to cover all of their own teaching, all of their own preparation, most of their own administration, to get current in their trade, and really do the work of a teacher who would be supported by a whole college. I think the diseconomy of scale was a big killer for the ATC – in the end.

How did you consider the support of the college program – funding, administration, both external and internal?

I came to the ATC quite late in the process, so by the stage that I'd come to the program it was really in some degree of difficulty. On one of the first senior management team meetings I went to I looked at the numbers on the page and wondered how this could continue to survive. Now I was brought in to develop a group training scheme, so, in mind was a source of revenue and to some extent we did do that but one of the things that was a separate company and had to be a separate company and one of the concerns that the auditors had over the couple of years that I worked there was that at the end of the year they would say - your major risk is actually the parent company – so it was a fully owned subsidiary of the college was the group training scheme, and it alone was generating a workable surplus but it wasn't able to actually be successful because of that working surplus was required to support a much greater deficit for the parent company. It's a really interesting thing about the funding and the administration of the program so, it was established as a stand-alone college with its own revenue stream – single revenue stream, which was funded by the tax-payer through the Federal Government and that was adequate to cover the needs of running the facility, paying the staff, and all of the different requirements, but as soon as the Federal Government pulled that one revenue stream and sent the funding of the program back to the State, it was required to generate its own revenue. It still had the same out-goings, still had the same cost structure but it had to then try and fit a different model of funding to meet those costs, and those were manifestly inadequate – and they would have been that way for *any* structure of that size that was expected to do that much work. So you think you've got virtually double the teaching staff, because you're doing both the trade training and the academic, and you've got very small numbers; you've got two campuses – so really it was a recipe for disaster I think. And there was

→ ***Reason for Demise:*** Partial failure of GTO

→ ***Reason for Demise:*** Loss of Government funding

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nothing that was really – there was no easy fix, I mean, one of the things that we toyed with early on and I said well, why don't we try and sell training on the open market which is all very well because we had a wonderful facility and we had some very good, well-skilled staff, but we had no room in our timetable to be able to do that because the students that we were having in, they were full-time students, they were there for 30 hours a week. And so, outside of those hours, I'm sure the college was reasonably available but the staff by that stage were tired – they were working full time work so the administration and the bringing in of external work was very problematic. We did do some things though, one of the strategies quite late in the day was – it was quite obvious we had to grow the student numbers and so the idea of bringing in students from other schools for them to do their Cert II as a traineeship was actually, ah, it did build the numbers while the cohort of full-time students at the ATC was dwindling we at least had the support of the general schools in our area. And so we had a traineeship program in carpentry, metals and automotive, and it was very good. It was quite successful. We had small numbers of cabinetmakers but, it was um, it was the only thing that was going to grow the numbers to a meaningful level. And then we might have been looking more like a trade training centre and shared and owned by the state, by the state schools rather than this very tiny stand-alone entity. *I wonder why that didn't happen – fee for service and stuff like that. It sounded like a good idea.* It definitely is but, there's not many organisations that are like that, who are doing successfully. The TAFE colleges don't offer fee for service. There are some private RTOs that do fee for service but they are structured very differently to how the ATC was. They're structured on a very *lean* model where they only bring in staff when they're required, whereas at the ATC they're all full-time staff so you can't – you couldn't have done fee for service. *(Well, we weren't getting paid as much as in teaching. When we came out of teaching we… The advantage for me was, well it was obvious. I was getting out of the school, but um, there was 7 weeks holiday, 4 weeks of which from memory was discretionary, so when you have leave you could take some when you like, which was something you couldn't do in a school. And they tried to put the pay about the same as a school, but then the school had a pay rise, another pay rise and everything, and we were kind of left behind a bit and we couldn't really afford to pay, I mean the college couldn't afford to pay us…)* The whole staff had the 7 weeks' leave which was – I don't think it was a game breaker by any means but it certainly wasn't in the interests of the college. When you think of public sector institutions, TAFE colleges, their administration staff do 6 weeks and their teaching staff have

Reasons for Formation and Continuation: Ideas for on-going viability

Reasons for Formation and Continuation: Ideas for on-going viability

Reasons for Formation and Continuation: Ideas for on-going viability

Reason for Demise: Perceived unsustainable benefits to staff

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12,10, between 10 and 12 weeks holiday so it's acceptable in the education field to have those sorts of breaks, but not in being able to take your holidays in a situation when you have students in a school and then the college had to bring people in to replace you so in effect the college was paying three times – so they were paying, paying you, yeh, plus they were paying your holidays and they were replacing you.

How relevant did you think this technical college program was in Western Australia?

I think it was hugely relevant. I think it turned out in its time, wonderful young people into the trades. When I think back, seeing all those young people in there sort of – your 16 or 17 years, who otherwise wouldn't have had a trade future I think that did an outstanding job. And in a time when there was an enormous skill shortage as well, so we had no trouble placing kids from ATC with employers. Employers couldn't take enough of them. *But the actual skill shortage is still there and the college is not. So you'd think, "hang on, the college is there because of a skill shortage, why isn't it still there?"* The numbers didn't fit in – the numbers – the amount of revenue you could generate from SC age, which is the basis on which all training funding is delivered, is generated, from the straight recurrent funding and the Commonwealth grant. None of that was sufficient to run both of those colleges.

Reasons for Formation and Continuation: Perceived high relevance of program

On a scale of 1-5, 5 being the highest, how successful do you believe the program had been on the basis of providing a source of quality apprentices?

Oh, it was very high. It wasn't perfect. So it wasn't a 5 out of 5 but it was a very successful – I had no trouble in a '4'. It really was producing good, well-skilled young people. In those facilities, with the really good training staff we had the kids learned their trade.

Reasons for Formation and Continuation: Perceived success in supplying skilled apprentices

What do you consider to be the main strengths of the program?

The fact that their academic and their technical were embedded together which is a great model for education – it's an expensive model but it's a really very good model. That's its.. that's its main strength. I think having the fantastic facilities

First Level Coding

that it had. You know I think it's hard for kids not to learn when they're excited by the equipment they'd got around them. The workshop – fantastic! It was established at the industry standard or above. The kids would often come back and complain that the workplace didn't have a plasma cutter, and they had one at school, and I'm sure none of the trade training centres are like that.

→ ***Reasons for Formation and Continuation:*** Unique college program, Good student environment

What weaknesses have you found, if any, in the program?

Well, apart from what we've spoken about, well I think the biggest weakness is the diseconomy of scale. If it was bigger, it could perhaps have survived. And so the diseconomy of scale resulted in your needing to make shortcuts. So for example the curriculum support was very rarely there. You know some of the trainers were people who had their – they were skilled and qualified in their trade. Teachers aside, because I think the teaching staff was fantastic and I think they were able to develop a program and deliver it in a really embedded way, and so they were able to take the trade skills and make that an academic program, but if you take then the trade trainers you'd often have people out of industry who were current in their knowledge so they would know what was happening in industry. They'd have their Cert IV in training and they'd be qualified in the mechanical trade or the electrical trade wherever it was. Whether they could build a program that was robust enough to satisfy audit and you know, checked and balanced in terms of AQTF and all those sorts of things. So in a larger college, like a TAFE college, you'd probably get a lot of curriculum support that'd come in under that and support you so you'd have, um, not only a program manager which is kind of like your RTO manager but you'd also have people from a whole curriculum branch who would support you in developing the means to teach and the way you record the outcomes and all those sorts of things. We made a mistake of moving training management system halfway through the last year of operation, because we were trying to get a clearer picture of our training outcomes, and what ended up happening was we got this mix and mash of data and it didn't really serve the purpose we hoped to achieve. So we would have been better, probably, to have the trainers work on a training plan, and then just tick off the kids as they achieved each of their units. What we were trying to do is set up something a little bit more sophisticated and it probably defeated our purpose.

→ ***Reason for Demise:*** Diseconomy of scale

→ ***Reason for Demise:*** Lack of foresight

What were your impressions of why the program failed?

First Level Coding

It failed because of funding really, I think, substantially. Everything there could have been fixed. Was the Government not forthcoming with any more funding? No the state…the Federal Government…they'd made a grant at the time that they… They'd made a grant to the college and see, the Chair – (*Persons named)* – would be able to tell you more about the detail of that. What was, um… They made a one-off grant to allow the college to secure the loan over the *(Name withheld)* premises and to own *(Name withheld)*, so they set it up in the best position they could have, to succeed, and then they gave it the ability to. It was already an RTO and a school, so they said yep, we'll continue to contribute the school funding but any other funding that you're going to generate you've got to generate on your own, so you've got to sell training to people.

→ ***Reason for Demise:*** Loss of government funding

What were your feelings concerning how this program compared with that in other countries?

In other countries? I've never seen anything, I've never heard of anything that was very… that was similar in any other country.

Well, that answers all the questions. Thank you.

Student 1: Pre-apprentice Electrician

First Level Coding

What was your feeling concerning the professionalsim of the administration and teaching staff?

I don't know much about the admin people – oh yes, I suppose they were quite good at collecting the fees. And they got us to sign when we wanted to leave early and stuff. The teachers were good. They knew their stuff, most of them. Some of the blokes mucked about in class though, and we couldn't get a lot of work done sometimes. It would have been better if those blokes that mucked about had been chucked out. I reckon the teachers were professional though, in stuff they did.

→ ***Reasons for Formation and Continuation:*** Confidence in teaching staff

What was your feeling concerning the teaching standard?

I reckon it was OK. Like I said, the teachers knew their stuff, mostly.

→ ***Reasons for Formation and Continuation:*** Confidence in teaching staff

What was your level of confidence in the teaching program? What do you mean? ***(Well, did you reckon the work you were doing – that was set by the college - would get you an apprenticeship in the end?)*** Oh yes. We did some good things – real interesting stuff. I liked how we had trades, and then we had school stuff. It didn't get too boring, and it seemed better for getting us over the line – to be an appreentice.

→ ***Reasons for Formation and Continuation:*** Confidence in teaching program

How did you consider the support of the college program – funding, administration, both external and internal?

I don't know anything about that.

How relevant did you think this technical college program was in Western Australia?

Like I said, I thought we would definitely get an apprenticeship. We had that work release, where we went out to places for a few weeks. I learnt a lot doing that. Some blokes mucked up, and they didn't like sweeping floors and stuff. I didn't mind. I knew I'd get to do the good stuff later.

On a scale of 1-5, 5 being the highest, how successful do you believe the program had been on the basis of providing a source of quality apprentices?

First Level Coding

I reckon I'd give that a 5. I know a few blokes that got to be apprentices from school, and they said they wished they'd got onto a good deal like we'd got.

Reasons for Formation and Continuation: Confidence in teaching program

What do you consider to be the main strengths of the program?

Well, it's good that you can get to leave school before year 11. School really sucks, and they don't teach you stuff you really need to know. Other times they teach you loads of stuff you don't need. The other thing is, if you muck about at the college, they can chuck you out. That stops a lot of the blokes doing stupid stuff. It's sort of half-way to being an apprentice and learning what you need to know – you know, maths and that – to help you get a job.

Reasons for Formation and Continuation: Better than school – lower behaviour problems, higher relevance to trade qualification, Good student environment

What weaknesses have you found, if any, in the program?

I suppose in the end, not knowing whether we could finish our trade and WACE stuff before they closed the college. Nobody seemed to have a real good idea about that. You could see some of the teachers were nervous about it.

What were your impressions of why the program failed?

I reckon it was the stupid Government. They couldn't see what a good thing it was for us. I hated school – the first time I did OK was at the College.

What were your feelings concerning how this program compared with that in other countries?

I don't know about that.

Student 2: Pre-apprentice Carpenter

First Level Coding

What was your feeling concerning the professionalsim of the administration and teaching staff?

Well, most of the teachers were really good. One or two, though, just treated us like schoolkids. I mean, they wouldn't listen when we tried to defend ourselves. But I suppose you get that everywhere, don't you. No, I reckon that the good teachers were really good – they gave us work that we could use later in work. It was sort of relevant - not like you get in school.

→ ***Reasons for Formation and Continuation:*** Confidence in teaching staff

What was your feeling concerning the teaching standard?

It was better than school, that's for sure. The tradies that took us in the workshop were brilliant. I suppose there were one or two that weren't that great, but mainly, they were good. They kind of made us want to learn things, and told us how it would be used outside.

→ ***Reasons for Formation and Continuation:*** Confidence in teaching standard

What was your level of confidence in the teaching program?

Like I said before, the stuff we were taught, well, it was the stuff we needed to know for our apprenticeship. In the trades, we didn't have to learn from a book all the time, like in WACE. I'm not saying that we didn't need to do WACE, it was just a bit like school. In the trades, they signed us off on competencies for our Certificate, and that was good.

→ ***Reasons for Formation and Continuation:*** Confidence in teaching program

How did you consider the support of the college program – funding, administration, both external and internal?

I didn't know much about it, but we had good equipment in the workshop, so I suppose there must have been enough money for that.

How relevant did you think this technical college program was in Western Australia?

We knew about the mining boom, and they reckoned that there weren't enough apprentices in Perth, because a lot of blokes had moved North. So I reckon the technical college program was real relevant.

On a scale of 1-5, 5 being the highest, how successful do you believe the program had been on the basis of providing a source of quality apprentices?

I'd give it a 4. Some blokes were put in jobs for work experience and just didn't get any. They were stuck on cleaning up and that. One bloke nearly decked the boss, and he was sent back to the college. I reckon the college should have stood up for him. Most blokes though ended up in good places, so I reckon 4.

What do you consider to be the main strengths of the program?

We got to leave school in Year 11. I was lousy at school – hated it. I really like it at the college. It's more like being in a job, and you learn better things. As well as that, we got a lot more freedom at the college, and we were treated like adults by most of the teachers.

What weaknesses have you found, if any, in the program?

We were told the college would find us work when we started, but then they said we had to do it ourselves. They reckon the person who told us got it worng. That was no good. I reckon the college should have found us places to do work experience.

What were your impressions of why the program failed?

We were told it was the Government. They never wanted the colleges, and so they didn't give them any money. They say that ATC was about the last college to close.

What were your feelings concerning how this program compared with that in other countries?

I think they're way ahead of us. I've read somewhere that most blokes do trades studies in places like Germany. Maybe it's different over there because they don't have our mining boom.

Appendix 3

Code Book

‘Anchor Codes’ are derived from the research questions, which fall into two categories: “Reason for Demise” and “Reasons for Formation and Continuation”. The coding under each anchor code is derived from the interview transcript, and as much as possible, have been reduced to those shown adjacent to the code number, where the bracketed summation is shown in some cases. The text box on the right of the page refers back to the original research question, and further generalisation has been applied to form the numbered statements that constitute ‘themes’.

Anchor code: ***Reasons for Formation and Continuation***

1 (12) Unique College program
2 (9) Confidence in teaching standard
3 (7) Confidence in teaching program
4 (4) Production of quality apprentices
5 (4) Confidence in teaching staff
6 (3) Advantage over state school VET system
7 (3) Positive Support
8 (3) Confidence in the relevance of the program
9 (2) Government funding
10 (2) Good student environment.
11 Political Expediency
12 Support from industry

Research Question 1:

What were the underlying reasons for the new model of Technical Colleges to be formed in 2005?

- **Superior College program – Major theme**
- **Confidence in teaching staff and standard – Major theme**
- **High quality of graduate apprentices - Major theme**
- Positive support for program from Industry and Government – Minor theme
- Confidence in program and relevance – Minor theme

13 (19) Funding problems
14 (7) Political expediency
15 (3) Diseconomy of scale
16 Influence of GFC

Research Question 2:

What were the reasons behind the withdrawal of funds for Technical Colleges in 2009 leading to the demise of some colleges and the absorption of others into the TAFE or school system?

1. **Problems associated with fund withdrawal – Major theme**
2. **Political expediency – Major theme**
3. Diseconomy of scale – Minor theme
4. Influence of GFC – Minor theme

Anchor code: *Reason for Demise* (Negative perceptions)

17 (8) Administration problems
18 (2) Problems with student behaviour
19 Partial failure of GTO
20 Difficulty in achieving Government Compliance
21 Initial difficulty in selling concept to industry
22 Costly program
23 Lack of foresight
24 Perceived unsustainable benefits to staff
25 Problems with teaching program
26 Perceived lack of professionalism.
27 Some low teaching standards
28 Staff tensions

Research Question 3:

Did the perceptions of former staff, students and administrators towards the now extinct model of Technical colleges formed by the Howard Government in 2005 have any bearing on the demise of the college?

1. **Poor administration – Major theme**
2. Problems with student behaviour – Minor theme
3. Inadequate monitoring of program – Minor theme
4. Lack of forward planning – Minor theme
5. Generous benefits to staff – Minor theme
6. Problems with teaching standard – Minor theme
7. Problems with staff reaction to lack of funding – Minor theme

Anchor code: *Reasons for Formation and Continuation* (Positive Perceptions)

31 (6) High degree of professionalism
32 (2) Lower comparative dropout rate
33 (2) Relevance of the program
34 (3) High literacy and numeracy of students
35 Ideas for on-going viability
36 (2) AQTF requirements met
37 Staff support for program
38 Private Funding

Research Question 3:

Did the perceptions of former staff, students and administrators towards the now extinct model of Technical colleges formed by the Howard Government in 2005 have any bearing on the demise of the college?

1. **Perceived high degree of professionalism seen as no bearing on closure – Major theme**
2. Program considered relevant and well supported with high literacy level being attained for students – Minor theme
3. High literacy level and low comparative dropout rate for students – Minor theme
4. Supply of private funding had no bearing on closure – Minor theme

39 Australian apprentice training system superior to that in many overseas countries

Research Question 4:

Is the Government regard for Technical Training in Australia compared with attitudes in other countries a possible reason for the demise of the 24 National Technical Colleges?

1. Government attitude not considered a reason for closure – Minor theme

Appendix 4

Analysis of Historical Data

Historical data was analysed from Chapter 2 – the literature revue. Relevant sections are included here, and key themes are listed under the 'Analysis' column, in a similar way to that in which the interview data coding was derived. The historical results are discussed in Chapter 4.

2.2 Early History of the Colony

Identified Themes

The arrival of the first colonists in NSW in 1788, with a total of 1480 mostly convict men, women and children from a number of different countries and the establishment of European settlement on 26 January, two days later, heralded the beginnings of modern civilisation in Australia. From the very beginning, Governor Philip realised the necessity for some form of skill requirement to create the infrastructure of the colony, but initially at least, this was not regarded with the same level of importance by the British Government. According to the First Fleet database (http://firstfleet.uow.edu.au/search.html), of the 780 convicts that arrived, there were only two apprentices, and 63 whose 'declared occupation' was a skilled trade. There were a number of bricklayers, but just a handful of carpenters and cabinet-makers. It would appear that in the new colony, the latter skills would have been more in demand. Governor Philip had the foresight to carry over some basic agricultural and structural tools, but was unable to dictate his need for skilled labour to use them. Moyal (2017) has recorded that in 1788: "In planning the expedition Phillip had particularly asked for trained men among the convicts. But in that mood of prevailing indifference that seemed to engulf his masters at home, there were only twelve carpenters in the convoy." In a detailed account in 1793, Watkin Tench recalled that "the possession of a spade, a wheelbarrow, or a dunghill, was more coveted than the most refulgent arms in which heroism ever dazzled." (Watkin-Tench, 1793, p. 2) The convicts were mainly from urban areas, and rarely had the skills necessary for building a new colony. The British class system at the time may not have allowed the realisation that probably the most important body of people in this new colony were skilled or even semi-skilled tradesmen.

Skills Shortage

Skills Shortage

Skills Shortage

Skills Shortage

Skills Shortage

Attitude

Governor Philip had a very challenging period in which to establish the new colony successfully. What he desperately needed were farmers to create a supply of food, and tradesmen capable of building houses. What he actually had were convicts whose skills in these

Skills Shortage

Identified Themes

areas were rare. The apprenticeship scheme in England had virtually ceased to exist in its traditional form, and 'farmers' and 'tradesmen' did not have the skills of their forbears. Aggravating the situation was the obvious human trait of 'lying' - falsely claiming a skill to possibly achieve a more comfortable situation. → Skills Shortage

The war between England and France took place between 1778 and 1883. This halted transportation of convicts to the new colony, which then found itself effectively isolated from the supervision of Whitehall. (Goozee, 2001). It was unfortunate that Governor Philip's successors, Grose and Patterson, then later, Hunter and King, had introduced and perpetuated to a great extent a hierarchical form of supervision, in which only the military or wealthy were allowed to own land. It should be understood that conditions for farming in Australia were extremely difficult. Initially, the plough, as has been stated, was non-existent, and didn't come into regular use until about 1803. Many of the original 'farmers' – convicts to whom Governor Philip had settled on large parcels of land – had left the land to pursue 'easier' occupations. As time progressed, these problems were overcome, but it was the need for skilled tradesmen and artisans that predominated thinking throughout those formative years. → Skills Shortage

The situation of the lack of skilled tradesmen was alleviated in 1851 with the discovery of gold at Bathurst in NSW and Clunes in Victoria. This was followed by more major finds at Ballarat and Bendigo in Victoria. Many able bodied men from England flooded the country in search of their fortune, and there were many good tradesmen among them (Murray-Smith, 1966, p. 84). The gold rushes also ushered in the end of convict transportation and the beginning of the accelerated economic expansion of Australia, especially in the Eastern States.

A number of 'trial shipments' of convicts that had been trained in trades skills in British prisons were sent to Western Australia before 1850. Apparently these 'shipments' were very successful. (Coghlan, 1918, p. 459). After 1855, when the colony became self-regulated, apprenticeships, which had previously been a source of 'cheap labour' for many land owners, were

Identified Themes

subject to a lot more regulation, giving apprentices better working hours and working conditions. The '48-hour week' was won in 1856 after the huge influx of tradesmen due to the gold rushes brought ideas of better working conditions as they drifted back to 'normal' work. The Union movement grew over the next decade, and it was instrumental in the formation of various schools of learning for the working classes, or 'blue collar workers' (The State Library of Victoria, 2016a).

→ 'Working Class'

2.3 History of Technical Colleges

2.3.1 Technical education in early Australia

Historical research has revealed the complex nature of successive governments' attitudes towards technical and trades education with funding from the State Governments and the Federal Government. Before Federation, on 1 January 1901, when the British Parliament passed legislation allowing the six Australian colonies to govern in their own right as part of the Commonwealth of Australia, private individuals funded 'technical colleges' out of necessity, because the survival of the colony depended upon skilled tradesmen.

→ Funding

Reports on Technical Education in Australia date back to 1822. The earliest reports, understandably, are from New South Wales. In the Bigge Report of that year, recognition of the requirement for what we now call tradesmen was made in the construction of the colony (Bigge, 1822, p. 25). Of particular interest in this early report, appears to be the relatively unsuccessful attempt to integrate 'emancipated convicts' into society. This cultural divide may be related to our own experience in the present day, where there appears to be the same divide between 'blue collar workers' and 'white collar workers'. The 1880's saw the start of the Union movement in NSW, and there was a massive maritime workers strike in 1890 (Auckland Labour History Group, 2010). This era spawned the formation of the Labour movement. Moving on to Western Australia, the 1891 report from the Committee on Technical Education was concerned with "the desirability and practicability of introducing technical education into

→ Requirement for Technical Education

Identified Themes

the more important Government Boys' Schools and the High Schools in Perth" James (1891, p. 3).

There has been quite extensive and in-depth documentation of Technical College history since the establishment of the colony of NSW in 1788. Probably the most comprehensive and helpful information, pertinent to this study, has been from an excellent thesis by Murray-Smith (1966), in which he summarises that: "We are still affected by the ambivalent nature of the origins of technical education, still not clear in our own minds as to what our own responsibilities to the development of our own country are." (Summary section para 5.)

Attitude

This very relevant and informative observation by Murray-Smith has a direct bearing on the subject, because the 'Rise and Fall' of the Australian Technical College in Perth appeared to be directly related to each side of Government being at odds with one another's policies. This study is concerned with Technical Education in Australia and much of the 'education' literature is divided between primary and secondary school education in Australia and university education. While the heading 'tertiary' education could be assumed to cover technical education, it is mostly concerned with 'higher' education which does not encompass technical education. The distinction is quite understandable given the apparent social mind-set predominant in the early part of the twentieth century. The researcher's experience was to be 'steered away' from a career involving manual skills and to be imbued with a belief that an academic qualification gave one a far higher social status.

A necessary requirement to foster the need for establishment of a 'trades college' was the need for tradesmen. Freyne (2010b) refers to technology in the late nineteenth century as being the 'harbinger of modernity and prosperity' and that 'technical skills were needed to meet the challenges of the industrial age' (p. 1). In the early years of the colony in NSW, those with trades skills were highly prized and it can thus be argued that the teaching of these skills has an importance that cannot be underestimated, despite those involved being from what used to be called a 'lower

Requirement for Technical Education

class'. An excellent conference paper written in 2010 for the *National Centre for Vocational Education Research* examines the role of convicts in the progression of technical education in the fledgling colony. It appeared that, at least in the early days, it was considered more beneficial to select skilled workers from migrants rather than to develop skills necessary for growth of the settlement in New South Wales. As transportation was being brought to an end in the 1840s, Beddie (2010) notes that employers thought more about how to import skills rather than developing them at home (p. 6).

Identified Themes

→ Skills Shortage

2.3.2 Mechanics Institutes

Technical Education began in England as Mechanics Institutes Libraries around 1799 when George Birkbeck, (1776-1841), a Professor of Natural Philosophy, began lecturing local 'mechanics' who had been building experimental apparatus he required. He lectured to an ever-increasing number of students at the Anderson's Institute, named after its founder and benefactor, Dr John Anderson (1726 – 1796). (Evans, 2009). Goozee (2001) notes that:

> Australia was swift to join this movement with the first Mechanics Institute being established in Hobart in 1827 and the Sydney Mechanics School of Arts being established in 1833. By 1840, Newcastle, Melbourne, Adelaide and Brisbane had all established similar institutions (p. 11).

A 'Mechanic' in this era referred to tradesmen or skilled craftsmen whose job it was to maintain machinery required for the on-going Industrial Revolution.

In England, the Mechanics Institutes provided training for tradesmen and 'indentures' were offered by private individuals, which later became known as apprenticeships (Dolan, 2010, Oct 4). Mechanics Institutes were the fore-runner of Technical Colleges and a quote in 1859 from the Castlemaine Advertiser in Victoria is quite significant. It stated that:

	Identified Themes
"The necessity for a mechanics' institute in every town is so well appreciated nowadays, that a long disquisition on the merits of such a question, are altogether unnecessary" (Baragwanath, 2011, p. 6).	→ Requirement for Technical Education
It should be remembered that this was only a mere eight years after the gold rushes of 1851, which signalled the end of 'transportation'. The Guardian in 2011 recalls that Mechanics Institutes "were the first adult education schools, libraries and public halls in Australia, sometimes called poor man's universities or workingman's colleges" (Baragwanath, 2011, p. 6).	→ 'Working Class'
Following the establishment of the Edinburgh School of Arts in Scotland in 1821, the Van Diemen's Land Mechanics' Institution was opened in Hobart in 1827 and the Swan River Mechanics' Institute was opened in Perth in 1851. The construction of Melbourne's Trades Hall and Literary Institute in 1859 by the then established unions, was to educate workers and their families (The State Library of Victoria, 2016a).	
Petrow (2006) recalled that "Most mechanics' institutes failed in their educational aims and became congenial places of resort for middle-class patrons, including women." The sobering fact was that in the early days at least, tradesmen were far more useful than academics in building the fledgling colony of NSW. The University of Sydney was Australia's first University, proposed by William Charles Wentworth in 1850 and opening its doors in 1852. Wentworth was an explorer, writer, and lawyer. (The University of Sydney, 2017) The NSW University of Technology had its roots in the Sydney Mechanics' School of Arts which was established in 1833. This is the oldest continuously running Mechanics' Institute in Australia (Freyne, 2010b).	
Almost without exception Universities and Technical Colleges such as NSW University of Technology, the University of Melbourne, Victoria University and Curtin University in Perth are reported to have their beginnings in the Mechanics' Institutes of the nineteenth century. This is true, but the modern University and the Mechanics' Institutes of yesteryear appeared to be poles apart. The Mechanics' Institutes conducted lectures and classes for the 'advancement of	→ Attitude

Identified Themes

science' rather than for any training or instruction in industrial skills (Murray-Smith, 1966, pp. 54-56). At the first Mechanics Institute in Hobart in 1827, lectures were conducted in "engineering, mechanics and steam engines", although a wider subject matter was covered at the Mechanics Institute in NSW, which was established in 1833, with lectures on "engineering, mechanics, natural sciences and the arts" (Beddoe, 2003, p. 124). The Swan River Institute in Western Australia conducted weekly discussion meetings on a variety of subjects, as was common with other institutes, but religion and politics were excluded. One has to contrast this with modern Universities in which a plethora of subjects can be studied with no general discussion meetings.

It would appear that Mechanics Institutes were established in Australia to supply the need for tradesmen, whose skills were so important for building the colony. It has to be said that the original idea of Mechanics Institutes was to encourage a more technical aspect of education for trades people of the day, but tradesmen failed to show the necessary commitment and attendance numbers progressively reduced when it was found impossible for the institutes to conduct a "full program of technical courses". The specialised subjects offered did not appeal to the trades people. (Beddoe, 2003, p. 125)

→ Requirement for Technical Education

Students flocked to attend the Mechanics Institutes that became very popular, as they offered the supposedly 'working class' a real future (Freyne, 2010a). However, the actual situation was rather different. The Institutes became the province of the wealthier students, and the 'working class', for whom the Mechanics Institutes were originally established, gradually became disillusioned by the concept. They suffered an inevitable decline, as the realisation of the false promise became evident (Royle, 1971, pp. 307-309).

→ 'Working Class'

While a number of historians, like Royle (1971), had concluded that the Mechanics Institutes were a failure in Australia, quite the opposite argument is posited by Baragwanath (2011):

Identified Themes

> "To me they were so obviously successful that maybe we take them for granted. They provided essential venues and services for the first 100 years of settlement and through their own democratic integrity have forwarded the advancement of human achievement." (p. 7)

A similar view was promulgated by John Woolley, who in his inaugural lecture at the Mechanics' School of Arts in Sydney in 1860, was adamant that although the situation had changed, the institution (Mechanics' School of Arts) had risen to the occasion:

> "Without abandoning our original design, we have superadded so much that it can scarcely be recognised. We include now amongst our members, not mechanics alone, but all those who are conscious that education is the work of a life-time, not of a few years; and by education we understand everything which contributes to furnish a man with those powers and motives which will enable him faithfully to fulfil the mission assigned to him in this world" (p. 16)

→ Requirement for Technical Education

2.3.3 Working Men's Colleges

Early technical education for trades was established in 1865 by the Sydney Mechanics' School of Arts, who also established the Working Men's College in 1878. However, it was really the establishment of the Working Men's College in Melbourne in 1880 by Francis Ormond that saw the real beginnings of Technical or Trades education (Murray-Smith, 1966, p. 265). In 1910 the Victorian Government passed an Education Act that gave them greater control over technical education. The Act allowed them to incorporate vocational education into State secondary schools, similar to an already established initiative in Germany. It is interesting to note that in 1891, less than twenty years earlier, a report by the Committee on Technical Education included a statement: "We do not advocate the teaching of trades in schools. These might be concurrently learnt elsewhere" James (1891, p. 3).

→ Requirement for Technical Education

The gold rushes of the 1850's really changed the focus of technical education. There was a huge increase in the population of the colony and technical education was

→ Requirement for Technical Education

Identified Themes

leaning more towards the study and maintenance of equipment used in the mining industry. Skilled labour was in more plentiful supply, so the need for trades training and apprenticeships was considerably diminished. Although Murray-Smith (1966) appears to argue that class divisions in the years following the 1850 gold rushes were becoming blurred due to the march of democracy since: "democracy involves not only the direct influence of a nascent working class, but an evolution from middle class patronage to questions of engagement and alliance between classes" (p. 86), it can be argued that the wealthy upper classes were apathetic to the financial requirements of technical education for the working class. The unions and workers themselves, for instance, were responsible for providing the funding for the establishment of Melbourne's Working Men's College. It was six years in the making, and opened in 1887 (The State Library of Victoria, 2016 p. 2).

→ 'Working Class'

Following the decline of the Mechanics' Institutes, similar 'Working Men's colleges' were established in other states, and in 1878, £20,000 was allocated by the New South Wales parliament towards the construction of a building as part of the Mechanics' Institute in Sydney. These Working Men's colleges were the fore-runner of Technical colleges, and in 1883 in Sydney, the Board of Technical Education took control of the management of the colleges. (Beddoe, 2003, p. 125). Similar Governmental intervention in Victoria into educating the working man could be partly the result of a groundswell of opinion that "Victoria's sons must be in a position to direct the 'lower branches of labour' to be obtained by immigration, and, to 'enable them to do this, must be educated aright'" (Brand, 1857b, p. 23).

→ Funding

→ Funding

→ Government Control

Following the unexpected affluence of the colony due to the gold rushes, the Eight Hour Day was won on 1 May 1856 after the Victorian Operative Masons' Society argued over a number of years that the harsher Australian climate was detrimental to the health of working men (Hughes, 1961, p. 397). It is around this time that the Australian Labor Party was formed. (It was called the 'Australian **Labour** Party' before 1912). There had been a proliferation of Trade Unions and

→ 'Working Class'

Identified Themes

working class militancy in the 1890s and the roots of the Australian Labour Party lay solidly in these Unions (Conrick, 1972, p. 1).

2.3.4 Technical education in the twentieth century

The beginning of the twentieth century coincided with the Royal Commission on Technical Education in Victoria, titled the 'Fink Report'. This report recommended a new type of secondary technical school, and a new syllabus was introduced in 1902, which placed a greater emphasis on science. (Fink et al., 1901). Subsequently, Victoria's first public secondary school was established in Melbourne in 1905, but the state's secondary school system was not fully implemented until 1911.

In an excellent report written in 1922 by Sweetman, Long and Smyth, referring to the Education Department and the Royal Commission on Technical Education, it was stated that:

"The new Department has organized all types of primary, continuation, technical, and secondary schools into one system, and is bringing them into the closest co-operation with the home, the farm, and the workshop, with commerce, and with the University in the task of developing the pupil and fitting him for the work of life" (Education department of Victoria, 1922, p. 184).

Government Control

Under 'Federation' on 1 January 1901, the British Parliament allowed the six Australian states to govern in their own right, and the Commonwealth of Australia became a constitutional monarchy. Although Western Australia only joined the Federation after it had secured a promise that a railway would be built, it held a referendum to secede from the Federation in 1933. It is interesting to note that although there was 68% support for secession, the British Parliament (and the rest of Australia) would not allow it.

'Differentiated Schooling', or *differentiation,* which has been used for many years since the nineteenth century at least, could be supported as being beneficial to students. Campbell (2014) refers to differentiation as a term that separates and describes groups of students

and the processes that select and sort them using grouping technologies that had become quite widely used in the twentieth century.

Identified Themes

In a practical sense, personal experience of differentiation was of a group of higher-performing students being 'moved up' to a higher class for the last six months of the school year in Primary school. Competition was encouraged and allowed some students to exhibit their true potential. Differentiation of this nature is deemed anachronistic today, and largely replace by 'competency-based testing', in which it is only necessary for students to achieve the desired level of competence in a particular study area or section of the syllabus. It may be arguable that this has resulted in an alarming fall in educational performance in mathematics, science and reading over the years from 2003 to 2015, as the PISA key findings for Australia have shown (Organisation for Economic Co-operation and Development, 2016).

The early part of the twentieth century saw the various State and Federal Governments assuming an increasing role in the establishment of Technical education facilities. By 1918, in South Australia, this culminated in the establishment of a system of technical education, a system of secondary schools and a university. By 1920 the concept of 'streaming' of students into trade areas had been introduced, with Catholic schools and some girls' schools introducing technical schools into their systems. This was an unpopular progression for some of the educational theorists and bureaucrats of the time, who may have seen it as allowing the 'working class' to assume greater importance in education. However, the concept had started to bring pressure to bear on governments, and the 1928 Apprenticeship Act in Victoria required compulsory schooling for each trade.

→ Government Control

It was during this post-war period that apprenticeships assumed greater importance and apprenticeship authorities were set up in all states from 1918 to 1928 to oversee both the employment and training areas of apprenticeship. However, Australia was slow to follow the lead in Europe for day release for trade training

→ Government Control

Identified Themes

taking until 1943 for its national implementation (Goozee, 2001, p. 16).

2.3.5 Contemporary technical education

The Technical Education Commission in NSW established by David Drummond found that technical education was both under-valued and under-financed. It recommended that trade schools should be known as technical colleges and that the total expenditure for technical education should be increased (Goozee, 2001, p. 17). However, up to 1970, the lion's share of expenditure was still allocated to compulsory schooling. → Funding

The election to government of the new Australian Labor Party in 1929 together with other influential bodies, such as the Victorian Trades Hall Council and the Chamber of Manufacturers, as well as technical school councils was responsible for the technical school system to be retained throughout Australia (Melbourne Polytechnic, 2013). The new generation of departmental leaders would have liked to merge all technical schools into the secondary school system, although this did happen with another Labor government in the 1980s (Burke & Spaull, 2001, p. 5). One would think that a political party founded on the support of the 'Working Class' would be most concerned about the welfare and education of that group. In the light of more contemporary events, that does not seem to be the case, any more than that of the Liberal Party. (It was the Australian Labor Party that withdrew funding in 2009 for the 28 Liberal Party founded Technical colleges which was a major cause of their demise.)

2.3.5.1 Walker, Murray, Martin and Karmel Reports

Following the report of the Walker Committee in 1943, which was established to 'consider the general problem of the co-ordination of the various activities of the Commonwealth within the education field' (Tannock, 1975, p. 4), the Federal Government, due to a change in the Constitution, was able to provide more financial assistance to education. A number of committees were set up to make recommendations to improve university and technical education following the Walker → Funding, Government Control

Identified Themes

recommendations. These included the Murray committee of 1957, the Martin committee of 1961 and the Karmel committee of 1973.

The Murray report's main recommendations concerned universities and that technical colleges should only involve themselves with non-professional training. (Goozee, 2001, p. 20). The Martin report recognised there was "undue emphasis on university education. As a result, the weakness of non-university tertiary institutions prevents the latent abilities of many young Australians from being fully developed." (Committee on the Future of Tertiary Education in Australia, 1964, p. 171) → Attitude

The Martin committee also believed that "it is important that the educational status of technical colleges, teachers' colleges and other tertiary institutions be improved" (p. 171). It seemed that there was still, even in the late twentieth century, a conflict regarding emphasis between universities and technical colleges regarding status and funding.

2.3.5.2 Australian Committee on Technical and Further Education and the Kangan Committee

By far the most far-reaching changes to technical education were made after the National Enquiry into Technical and Further Education submitted its report in 1973. The Labor Party had come to power in 1972 on a platform that included 'equality of opportunity', and in particular, this meant equality in education, health and welfare. It had become evident that technical education had become the 'poor relation' of the education system, and Kim Beazley, the Minister for Education in the Labour Party together with Clyde Cameron, the Minister for Labour and Immigration, established a Commission on Technical and Further Education to address this. Myer Kangan, the deputy secretary of Clyde Cameron's department was nominated to head the enquiry, which concluded that: "The main purpose of education is the betterment and development of the individual, people and their contribution to the good of the community. Technical and further education should be planned accordingly. Emphasis on the needs of the → Attitude

	Identified Themes
individual should lead to easier access to learning" (Kangan, 1974, p. xxiii Vol 1)	
The Australian Committee on Technical and Further Education (ACOTAFE) was established following the recommendations of the Kangan inquiry. ACOTAFE made it known that "TAFE had too often been thought of as something different from a tidy mainstream of education—primary, secondary and tertiary—and should be regarded as an alternative, neither inferior nor superior, to the other streams of education". (Goozee, 2001, p. 25).	→ Attitude
This report only sought to improve the technical education system and did not draw comparisons between TAFE and universities. It could be argued, however, that this appeared to be a conscious attempt to overcome the 'working class' disadvantages of the early twentieth century. This was reinforced by the statement: "The proper perspective for the fourth quarter of the twentieth century is for technical and further education to be seen as an alternative - neither inferior nor superior - to the other stream of education, but so organised as to enable interchange without personal disadvantage." (Kangan, 1974, p. xxiii Vol 1)	→ 'Working Class', Attitude
Relevant to the present study was the conclusion that as long as youths were prepared to study "at a technical college full time in the trades area for a period" that the period would be credited as part of their apprenticeship "should they subsequently enter the trades" - (Kangan, 1974, p. xxxi Vol 1)	
This conclusion appeared to encourage the later decision by John Howard's Liberal Government to form Registered Trade Organisations (Technical Colleges) in 2005, independent of TAFE colleges.	
The abolition of tertiary education fees by the Whitlam Government in 1975 allowed access to technical and university qualifications to a huge number of people who would otherwise have decided against this level of education due to its cost and their own socio-economic status.	

In a speech by Mr. Kim Beazley supporting the tabling of the Kangan committee's report in Parliament in 1974, he stated:

Identified Themes

> "The report … abandons the narrow and rigid concept that technical colleges exist simply to meet the manpower needs of industry, and adopts a broader concept that they exist to meet the needs of people as individuals . . . The report takes a long step in the direction of lifelong education and of opportunities for re-entry to education" (p. 48).

→ 'Working Class', Attitude

It would seem therefore, that the concept of 'working class' was no longer an issue, since 'inequality' had been addressed very forcibly by the Kangan committee, and Gough Whitlam.

One would assume that the recommendations of the Kangan committee would be wholly embraced by the Government, but in 1975, the Labor government under Gough Whitlam was forced out of office and a new Liberal government under Malcolm Fraser was sworn in. Certainly increased funding for technical education was made available, and sourced directly from the Commonwealth Government. This enabled TAFE colleges to flourish, however. The Richardson Report in 1975 drew attention to the "Cinderella Image" of TAFE, suggesting that the provision of more funding would enable some parts of the TAFE network could be established closer to residential areas for easier access by students (Australian Committee on Technical and Further Education, 1975). Even Myer Kangan was a little critical of TAFE's role. In a speech he made some years after the Kangan report was released, he referred to TAFE having "…a poverty status that was too deeply embedded in the mentality of Commonwealth politicians and Commonwealth Public Service administrators" (Kangan, 1980, p. 13). Additionally, one would wonder about the altruistic nature of Government regarding the benefit of decisions such as that reported by Barbara Bee in her 2014 thesis: "Right-wing conservative governments do not champion equality or social justice – witness the actions of a state Liberal Government in New South Wales which closed

→ Funding

→ Attitude

down NSW TAFE Women's Programs in 1988" (Bee, 2014, p. 44).

Identified Themes

Following the Kangan report, there seemed to be a number of problems within each State that could have been avoided if only the Constitution had allowed Technical and Further Education to be under the total control of the Commonwealth. In NSW, one recommendation of the working party appointed to draw up recommendations for the establishment of an Education Commission was "That the present Departments of Education and Technical and Further Education remain separate administrative units under the Commission; that there be separate teaching services for schools and technical and further education; and separate budget provisions for each" (New South Wales Government, 1977, p. 12)

→ Government Control

In Victoria, similar sentiments were expressed in a submission prepared for the Williams Inquiry by the Curriculum Board in December 1977. In addition to a realisation that TAFE "was also regarded as 'the poor cousin' in the joint CAE/TAFE institutions." (Goozee, 2001, p. 41), the submission stated that:

"We believe that while the TAFE organisation remains enmeshed within the wider Department, and its objectives and operations are hampered by primary and secondary school teaching in the top administration, and by the Teacher's Tribunal, it cannot be fully effective. In fact, we are concerned that TAFE may be prevented from developing sufficiently to meet the future challenges that we would hope would flow from your Inquiry. We therefore believe that the administration of TAFE should be separated from that of primary and secondary schools" (Ryan, 1982, p. 18).

The 'Deveson Report' - the Training Review Committee, 1990 or the Commonwealth 'Training Costs of Award Restructuring' - was really the trigger for reforms in the VET sector. This report emphasised the importance of private training providers alongside TAFE providers of technical education. Anderson had found that "Since its formal establishment following the Kangan report (1974), the TAFE system has enjoyed a virtual monopoly over government-funded

vocational education and training and almost exclusive control of publicly recognised vocational qualifications." (D. Anderson & National Centre for Vocational Education Research, 1994, p. 3).

Identified Themes

While there was an unprecedented growth of TAFE in the late 1970s and early 1980s, Goozee (2001) points out that "there was also the start of the tendency for Commonwealth bodies - particularly The Department of Immigration and Ethnic Affairs (DEIR) - to develop new programs which were required to be implemented with very short lead times, then to either change the program or withdraw funding. The withdrawal of funding or the imposition of a requirement for States to fund a certain amount of places in order to gain the Commonwealth funds became common with pre-vocational and pre-apprenticeship courses." (p. 38) This restriction would also have applied to the Australian Technical College system after the 24 colleges were established in 2005. In the end it was the withdrawal of funding that caused their ultimate demise.

→ Funding Withdrawal

It is hard to understand this attitude, because the 'Skills Shortage' in Western Australia was causing many problems during the mining boom, and the Technical Colleges Act of 2005 was supposed to address these problems. The principal object of the Act was to "provide for the establishment and operation of Australian Technical Colleges in order to provide trade skills training, education and mentoring for young Australians". Promotion of pride, excellence in trade skills training, with an industry-led approach that was relevant to industry to build a "solid and rewarding career" for students were some of the main aims of the Act. The colleges themselves would be autonomous and would have an industry-led governing council. (Australian Government, 2005)

It could be said that Australia had a skills shortage from the time the colony was established. Certainly Governor Philip found that skilled tradesmen were in very short supply when the First Fleet arrived:

→ Skills Shortage

"although we know little about individual convict consignments we know enough to say that men of the foreman level and. above were rare enough in them,

Identified Themes

and often unwilling to admit their special skills even when they possessed them." (Murray-Smith, 1966, p. 4)

More recently though, the 'mining boom' in Western Australia's Pilbara region created a more modern version of this skills shortage. Prime Minister John Howard in 2005 stated: "... I do not wish for a moment to underestimate the problem relating to skills. ... But it is a challenge, it's not a crisis, and we should approach it as such" The Prime Minister was responding to a report by the Australian Bureau of Statistics in 2005, regarding the "movements in a range of labour market indicators….as well as a number of indicators obtained from labour market surveys" (Australian Bureau of Statistics, 2005) with the conclusion that Western Australia did in fact have a Skills Shortage.

2.4 History of Funding for Technical Education in Australia

In the early days, Mechanical Institutes were privately funded, but as the infrastructure became more firmly established, Government policy of the day dictated the allocation of funds. Funding allocated specifically for Technical Colleges were generally initiated by various reports which usually tried to address the imbalances of the education system at the time and for many years, technical education was the 'poor relation' while funding for schools, both primary and secondary as well as universities, was prioritised. "Throughout its history, there has been conflict between technical education and the other sectors of education, particularly universities, about what has been an appropriate role" (Goozee, 2001, p. 9).

→ Attitude

2.4.1 Early Funding 1850 - 1900

Apprenticeships in the early days entailed attachment, or 'indenture', to a skilled tradesman for a period of some years. Payment was usually in kind, being meat, drink and clothing in many cases. There is an example of an apprentice indenture certificate from 1640 in the United States in which a Thomas Millard agrees to "bynd myself as an apprentice for eight yeeres" and that the employer, not only agreeing to supply him with food and work clothing but it was also understood that at the end of the apprenticeship Mr Millard would

Identified Themes

receive "one new sute of apparel and forty shillings in mony" (United States Department of Labor, 1969 p. 1)

This form of employment and the 'payment' for training continued in the colony from the time of the First Fleet, although there were very few skilled tradesmen that had been transported to the new colony. (Murray-Smith, 1966, p. 2). It was between 1870 and 1885 that Australia experienced a huge population and economic growth, bringing about a growing pressure for increased technical education. → Funding

The Governor of Queensland in 1872, Mr George Phipps was reported in the Queenslander as saying that he: "…considered that it was a very bad habit in. a young country for the people to look to the Government to supply their wants. In a free country like this they should remember all men should try to help themselves before they asked others to help them, and he was sure that they would feel considerably more satisfaction in using these institutions when they felt they were their own property, provided by their own exertions, than if they owed them to any extraneous aid from the Government of the country." (Phipps, 1872, p. 3)

Contrary to this notion, the early Mechanics' Institutes founded by George Birkbeck in 1799 failed a few years later through lack of funding. As Jane Dolan found during her research into Mechanics' Institute Libraries: "Rarely did the funds available from subscriptions cover the expenses incurred in building and running the mechanics' institutes, let alone furnish them and stock the shelves with books. From the earliest days the Melbourne, Geelong and Castlemaine mechanics Institutes existed because Government funding allowed them to." (Dolan, 2010, Oct 4, p. Para 5) → Funding

Following the reduction of working hours to eight hours a day in 1856, Francis Ormond, a member of parliament and a noted Victorian philanthropist, in suggesting the establishment of a technical college for working men and women, offered to match any funds raised by public subscription if the college site could be provided by the government. Contrary to Ormond's expectation that the wealthy and 'upper classes' would contribute to the funding, it was the workers themselves → Funding

and their Unions that actually provided £5 for every £1 contributed by employers, enabling the college to open in 1887. (The State Library of Victoria, 2016b, p. Para 5)

Identified Themes

It was not until 1875 that Government funding was allocated to education, and Goozee (2001) noted that a £2500 grant being made available for the establishment of a Working Men's College in NSW (p. 12) The concept of a Government subsidised Working Men's College superseded the privately funded Mechanics Institutes and Schools of Arts that had sprung up in the early part of the century. There was a general realisation that education needed to be put under a more centralised control, and in 1882 the Government created a Board of Technical Education to administer the new Working Men's College, which had up to then been partially controlled by the Committee of the Sydney Mechanics School of Arts. The Committee on Technical Education Report in 1891 recommended "Legislation in the direction of aids for the supply of technical instruction by empowering municipalities to levy for that purpose a rate not exceeding one penny in the pound".

→ Funding

→ Funding

2.4.2 Funding 1900 – 1960

The International Conference of Technical Education held in London in 1897 was responsible for a number of political initiatives in Australia a few years later. The conference had "created a growing belief that the European technical training systems were superior to the British and, therefore, the Australian systems." These initiatives included Victoria's Fink Commission (The Royal Commission on Technical Education 1899-1901) and similar inquiries in other States in the following few years proposing a "coherent and progressive development of technical training from kindergarten to university" (Goozee, 2001, p. 14). These political initiatives opened the way for Government funding of technical colleges and universities.

→ Funding, Government Control

Although the University of Sydney in NSW was established in 1850, and funded by State endowment, the main thrust of Political involvement took place in

Victoria. The Education Act of 1910 allowed the Education Department of Victoria to increase its influence by including vocational programs in its new secondary school system, but more relevant to this study was the assumption of direct control over such new colleges as Footscray in 1916, and Caulfield in 1922. Junior Technical schools were established and funded by the Government, which gave youths access to pre-vocational education and night classes. Elkner (2008) noted that "Technical schools offered a three-year pre-vocational course before students proceeded to a trade or other employment" (Para 4).

Identified Themes

The Technical Education Commission established in 1933 by the New South Wales Minister for Education, David Drummond, to inquire into the State's technical education system, presented its report in 1935. It recommended the abolition of the term 'Trade School', and the formation of 'mobile teaching units' to address the difficulty of receiving proper trade training in country areas. There was a steady expansion of technical education through the early part of the twentieth century, and with the advent of war with Germany from 1939 to 1945, an increase in Australian manufacturing was responsible for an increased demand for people with trade skills. The McKell and McGirr Governments in NSW increased technical education expenditure from £625,944 in 1940 to £2,174,612 in 1950 – increase of over 200% (Bradford, 2010, p. 26). Despite the fact that the Australian Constitution had specified support of education by the various States, it was the Federal government that funded the Melbourne colleges – the Melbourne Printing and Graphics Trade school (1948), the Melbourne School of Textiles (1949) and the Batman Automotive trade school (1950) (Elkner, 2008). Goozee (2001) is quite critical of the level of funding provided to technical education in this period though: "The 1950s and 1960s were therefore periods of growth for technical education, but, although funding had improved in some States, it still did not match the growth in the system which still had to cope with inadequate facilities and equipment" (p. 19). The Melbourne colleges later became part of the TAFE network, which was funded by the Commonwealth

→ Funding

→ Funding

from 1974, following the report of the Murray Committee in 1958.

Identified Themes

It has already been mentioned that the Australian Constitution allowed little direct control over education by the Federal Government, and that education was deemed to be a State responsibility. The Curtin Government in 1942 introduced the 'Constitution Alteration (War Aims and Reconstruction) Bill' by which certain matters including vocational training would become the responsibility of the Commonwealth. A referendum was conducted in 1946 in conjunction with the election, which saw the Chifley Government returned. This referendum was passed by the Federal Government in the 'Constitution Alteration (Social Services) Bill', and authorised the provision of 'benefits to students' among other things. This allowed the Commonwealth to have a greater power over education. In fact, since 1950 there has been an increasing Federal Government involvement in education: in the schools sector; TAFE; Vocational and Higher education, as well as in education policies. Capital grants have been made to the states for science laboratories in 1964; secondary school libraries in 1968 and from the 'States Grants (Primary and Secondary Education Assistance) Act (1992)'

→ Government Control

2.4.3 Present Funding

When Robert Menzies' Liberal-Country Party defeated the Labor Party led by Arthur Calwell in 1963, the Prime Minister made grants for technical scholarships that were able to be used for scholarships and grants for technical colleges. This occurred due to some States not having technical schools, for which the grants were originally intended. In these States, departmental officers 'translated' them into grants for technical colleges. Under this system, a total of $116 million was paid by the Federal Government between 1965 and 1975 (Robinson, 1990).

→ Funding

Contemporary landmark decisions regarding tertiary education included Gough Whitlam's Labour

Government abolition of fees in 1974, the Finn Report of 1992 ('Young people's participation in post-compulsory education and training') and the 'States Grants (Primary and Secondary Education Assistance) Act (1992)'. This has now been replaced by the 'States Grants (Primary and Secondary Education Assistance) Legislation Amendment Bill 2004'

Identified Themes

The abolition of tertiary education fees by the Labor Government led by Mr. Gough Whitlam in 1974 was a paradigm shift in thinking for the Federal Government. As has already been stated, the Australian Constitution made the support of education a responsibility of the various States, but there is provision under Section 96, as has already been stated, for the Government to make grants to the States and dictate how those monies are spent. Under Section 51(xxix), the Government can also use its External Affairs powers to influence education policy, arguing that it would affect Australia's relationship with other countries. It was however, the interpretation of Section 96 under which Gough Whitlam was able to abolish tertiary education fees in the States.

→ Funding, Government Control

Using the 1992 Finn Report, the 'States Grants (Primary and Secondary Education Assistance) Act (1992)' gave a substantial boost to funding of tertiary education. As reported in Hansard on 30 April, 1992, Mr Beazley (Minister for Employment, Education and Training) said:

→ Funding

> "The Bill targets full time students at or above the level of year 10 or its equivalent who are under 21 years of age. This is consistent with the Finn report's emphasis on young people. Provision is made for students undertaking courses in schools and education and training institutions including institutions which are registered under a State or Territory law."

According to Mr Baldwin (Minister for Higher Education and Employment Services) on 7 May 1992, concerning the Higher Education Funding Amendment Bill 1992: "The purpose of this Bill is to amend the Higher Education Funding Act 1988. The Act provides Commonwealth grants of financial assistance to the

States, the Northern Territory and higher education institutions for the provision of higher education. This Bill provides increased funding for higher education institutions of $46.7m in 1992, $29.7m in 1993 and $9.5m in 1994." Following the Higher Education Contribution Scheme (HECS) whereby students could defer payment of their tuition fees until they became employed and introduced into Australia's Higher Education sector in 1989 by the Education Minister John Dawkins, 'Vet-Fee-Help' was started in 2008 as part of the Commonwealth's Higher Education Loan Program (HELP). Forward (2015) noted that "Since its introduction in 2008, Commonwealth Government funding for VET FEE-HELP has grown at an extraordinary rate – from $25m in 2009 to about $1.3b in 2014" (Para 2) .

Identified Themes

By 2000, the major funding for education was being provided by State governments, rather than by private sources. While tuition fees had been removed for technical and vocational education in 1974, they had been re-introduced in some part by the late 1980's. The Higher Education Contribution Scheme was introduced in 1989, which covered about 20% at the time of the costs for courses. This proportion has been increased in more recent years. (Burke & Spaull, 2001) In 2005, the Howard (Liberal) government had proposed 24 national technical colleges and a total of $550 million in funding. It then amended the Australian Technical Colleges, increased the number of colleges to 28, and the funding was to be spread over the years up to 2011 as shown in Table 2.1.

→ Funding

→ Funding

Table 2.1

Financial Assistance to Australian Technical Colleges from 2005 - 2011

Year	Amount ($)
2005	15,810,000
2006	118,357,080
2007	148,981,588
2008	118,400,087
2009	96,603,544
2010	15,823,000
2011	16,951,000
Total	530,926.299

Source: (Flexibility in Achieving Australia's Skills Needs) Act 2005

(Sourced from the Federal Register of Legislation at 20 March 2015)

Identified Themes

Aside from the expenditure on Technical Colleges, a recent report by the Mitchell Institute in Melbourne details the steady reduction in expenditure on VET since 2011-12, while expenditure on Higher Education has nearly doubled over the same period. (See Figure 2.1) → Funding

2.5 Australian Technical College Formation

According to the Australian constitution, education is the responsibility of the state and territory governments; although the federal government does partially fund private schools, vocational and higher education. While vocational education funding was originally channelled via the individual states and territories, for the Federal government to directly fund tertiary education in this way was very unusual. Part of the reason for this was a breakdown in co-operation between the Howard Government and the States. → Funding

The areas in which these new colleges were to be placed was chosen by the Federal government. There was a tendering process, in which church groups, for-

profit companies and state and territory government were involved. Once again, this was quite unusual, since the federal government was effectively funding a number of private schools.

Identified Themes

As to be expected, there was a lot of opposition to the proposal. The ACTU, while supporting the announcement of increased spending for vocational education and training in 2005, felt that it was an 'inefficient use' to use the allocation on "the establishment of specialised technical colleges – does not optimise the use of the funding. We are also concerned that there is no allocation of funding to other aspects of need in the VET system – such as growth funding to TAFEs." The ACTU were also deeply critical of the Australian Workplace Agreement (AWA) strategy adopted to employ staff, saying that, contrary to the Government's assertion that they (AWAs) meant 'Higher pay and better conditions' the opposite was often the case. Up to that time, despite the fact that students could not graduate until they had completed a course. In 2007, the students had barely started courses (Australian Council of Trade Unions, 2005).

According to the federal member for Calwell, Ms Vamvakinou argued in 2007 against allocating more funds for a further four technical colleges. She said that while the government had admitted there was a skills shortage of 200,000 skilled workers, the Australian Technical College programme would only deliver 10,000 new graduates by 2010. The government had reduced funding to TAFE by 26% in the ten years from 1997, with corresponding reductions in government funding per student. Because of this, TAFE had found it necessary to turn away 325,000 potential students over that period. (House of Representatives Australia, 2007)

→ Skills Shortage

In November 2009, Julia Gillard, the then Education Minister, was asked for a status update on the Australian Technical Colleges, since most of them were unable to function without continued government funding, which was withdrawn under Labor. She revealed that most of the colleges had been absorbed into the State Government school system and the Catholic and Anglican Education system. Five colleges

→ Funding Withdrawal

would remain as independent schools. She was adamant that no further funding would be allocated to ATCs after 31 December 2009.

Identified Themes

2.5.1 Student Enrolments and Completion Rates

The figures shown in Table 2.2 indicate that the total number of Australian School-Based Apprenticeships (ASBAs) appears to be less than 5000. It appeared that only 50% of enrolled students actually graduated with an ASBA. When we compare Ms Vamvakinou's question in the House in 2007, it is patently obvious that the government estimate of 10,000 graduates by 2010 was a long way short of being met. The other point is that there were apparently 28 colleges altogether in 2007, yet Ms Gillard only listed 24.

Table 2.2

ATC Student Enrolments and ASbAs (Australian School-Based Apprenticeships)

Year	Students enrolled	ASbAs	Comment
2007	1597	969	As at census 31 October 2007
2008	2762	1721	As at census 31 October 2008
2009	3639	Not known	As at census 31 March 2009

Source: (House of Representatives Australia, 2009)

(Sourced from the Federal Register of Legislation at 20 March 2015)

With regard to the completion rate at Australian Technical Colleges, it appeared that 50% was quite poor, but compared with completion rates at TAFE colleges, it is quite the opposite. The TAFE NSW completion rate for instance, at AQF Certificate III and above was about 33.6% of enrolments in 2009, and the AQF Diploma and above was 6.8% of enrolments (New South Wales Department of Technical and Further Education, 2013). On that basis, it appears that it was simply that the Australian Technical Colleges were unable to attract a sufficient number of enrolees,

Lack of Foresight

Identified Themes

and this could be due to a number of factors, including negative advertising from competitive colleges (like TAFE), or simply not enough positive advertising by the various colleges or by the government on their behalf. It is a fact that many employers regard university graduates as being less manually dextrous than their Technical College counterparts. The difference between a university education and that of a technical college is quite succinctly summed up by the UNESCO definition in 1997: "… general (University) education which is mainly designed to lead participants to a deeper understanding of a subject or group of subjects and 'vocational or technical education' which is mainly designed to lead participants to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation or trade or class of occupations or trades." Carnegie (2000) has a more succinct definition of VET: "A distinguishing feature of VET is the specific learning/assessment focus, which is competency based. This approach is concerned with training and assessment to meet industry standards rather than with an individual's achievement relative to that of others in a group. It emphasises what a person can do, not just what they know." (Carnegie, 2000, p. 18)

→ Attitude

It is interesting to note that Mr. Tony Abbott, in opposition in 2010, reported by the Weekend Australian on August 13, stated that a "Coalition government would re-introduce funding for at least 30 Australian Technical Colleges". It is unfortunate that by the time he assumed office in 2013 as leader of the elected Liberal-Country Party government, nearly every one of the Australian Technical colleges had been absorbed or closed.

→ Funding

Appendix 5

Australian Technical College Program Structure – 2 Year Program

Year 11 students enrolled in WACE subjects and a Certificate II Pre-Apprenticeship learning essential trade skills and studying their WACE subjects.

During the first semester students would complete one or two x 2-week blocks of unpaid work experience to 'get a feel' for the workplace and for employers to gauge readiness for an ASbA.

Upon completion of work experience the student would work with ATC Group Training and a College Employment Co-ordinator to secure an ASbA.

Once a student-apprentice was indentured with an employer (ATC Group Training or a Direct Indenture) they would commence a 5 week at work – 5 week at College rotation until they graduated from Year 12.

When the student-apprentice graduated from the ATC WA they would have obtained their Western Australian Certificate of Education (Year 12 Graduation) and completed up to one year of their chosen apprenticeship.

The College released a flyer with the following information, as shown in Figure 2 and 3:

ATC WA focuses on workplace and project-based learning which builds student confidence, self-esteem and personal satisfaction.
Industry led and industry driven –representation on the Board, frequent feedback from employers.
Small work teams (optimum 15, max 20 student-apprentices).
Over the course of the two-year program students have the opportunity to complete in excess of 800 hours of trade training in a state of the art College workshop and up to 1300 hours of industry training with an employer.
The student-apprentice earns an income when on indentured workplace rotation (can earn up to approximately $10 000 -$12 000 over two years).

On graduation from the College many will become 2nd Year apprentices on 2nd year apprentice wages.
Year 12 graduation keeps the door open for future study.
College has a full-time Student Counsellor at each campus to mentor and support student apprentices.
College has its own employment arm, ATC Group Training, to assist student-apprentice to find employment.

Figure 2: **Benefits of becoming a School-based Apprentice at the ATC WA**

2008	Year 12 ATC WA Graduates into Full time Apprenticeships –96%
2008	Year 11's in School-based Apprenticeships –77%
2009	Year 12's in School-based Apprenticeships –77%
2009	Years 12's with ASbA transitioned into Full Time Apprenticeship – 100%
2009	Year 11's in School-based Apprenticeships –30% (tight labour market)
2010	Year 12's in School-based Apprenticeships –78% *(seeing a stronger uptake already in 2010 e.g. Engineering Fabrication –99%,*
2010	60 students employed by ATC GTO

Figure 3: **Employment statistics**

Two campuses were established in Perth South - *(Name withheld)*, for Automotive Mechanics and Engineering Fabrication (Heavy) and *(Name withheld)*, for Cabinet Making, Carpentry and Joinery, Electrical and Bricklaying.

(The latter was discontinued after the first year of operation, due to lack of student numbers.)

The WACE subjects covered included English 1A/1B, 1C/1D, Mathematics 1B/1C, 1D/1E, 2A/2B, Business Management and Enterprise 1A/1B, 1C/1D, Physics 1B/2B (Mainly for Electricians) and Workplace Learning 1A/1B. Trade Competencies contributed to completion of the WACE program.

The costs for enrolling at the college included:

2010 fee = **$1,100** ($200 enrolment fee, $600 tuition fee, $300 resources fee) – *reviewed for 2011***.**

Students were required to purchase their uniforms, boots, books and relevant safety equipment.

Students were also required to purchase basic tools prior to going to work.

Before students could enrol, they were required to fill out an application form, stating trade preferences, had to sit multiple choice numeracy, literacy and aptitude assessments and attend a 20 minute interview with an ATC staff member. If a letter of offer was sent to the applicant, they were required to pay the $200 enrolment fee listed above.

The College also listed a number of additional services it could offer. These included:

- RTO Auspicing for Schools
- Skills Recognition and RPL
- Fee for Service Courses
    - Senior First Aid
    - Fork Lift
    - Construction White Card
    - Automotive Air-conditioning
    - Wheel alignment
- Venue Hire

The Program used by the Australian Technical College (ATC) was therefore different from any other apprentice training program in that students from as early

as Years 10 could leave high school and continue their Western Australian Certificate of Education (WACE) studies at the college, as well as completing Certificate II and III of their trade training leading to apprenticeships within the college, in very well-equipped workshops. The College was governed by an Industry-led board, and they developed a new educational model for those who aspired to be a tradesperson in Western Australia.