

Faculty of Education

**A Case Study of Lower Secondary School Reform, Renewal and
Culture**

Terry Wayne Boland

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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 other person except where due acknowledgment has been made.

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ABSTRACT

The case study examines the outcomes of a process of re-structuring, renewal and cultural change in a school undergoing transformation from a senior high school to a middle school. The research investigates the impact of school improvement initiatives on the school and classroom culture and learning environment after 12 to 18 months of reform implementation.

The research approach is a developmental mixed method investigation utilising quantitative and qualitative data collection procedures. The study proceeded through two stages: Quantitative surveying of students and parents prior to the implementation of school improvement initiatives; and quantitative and qualitative surveying of students and parents after 12 and 18 months, respectively, of reform implementation and application of the treatment.

Evidence of change in the college and classroom culture and learning environment was evident after twelve months. The case study identified that students and parents identified changes in a number of elements of the classroom culture and learning environment. These included improvements in home-school communications, involvement in classroom planning and organization, relationships between teachers and students, school culture and evidence of pedagogical change. The research also identified that change had not occurred in the attainment of student learning outcomes, educational values and parent confidence to assist students in their learning.

It became apparent that change in the organisational culture had occurred within the first 12 to 18 months. However, change to the deeper cultural dimensions of educational values and student learning outcomes were less in evidence.

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CHAPTER ONE

INTRODUCTION

OVERVIEW

This chapter commences by outlining the background to the study and the context of the investigation. The chapter details the development of the college, the research focus and questions, the significance of the study and its limitations. It concludes with an overview of the organization of the thesis.

BACKGROUND

In recent years, a number of local secondary schools have implemented a variety of initiatives in Years 8 to 10 with the intention of improving student outcomes through alternative curriculum structures and instructional practices (Jackson, 1999). Within the Western Australian education systems these initiatives have commonly been referred to as middle schooling reform. The theoretical foundation of this reform is primarily pedagogical, however, changing the nature of the teaching and learning processes within these schools has necessitated complementary changes in school organization and structures, and staff management.

Evaluation of middle schooling implementation needs to be undertaken with cognisance to the findings of relevant educational research. School effectiveness research focuses on ascertaining whether or not differences in resourcing, processes and organisational arrangements in schools affect pupil outcomes (Stoll and Fink, 1996). Stoll and Mortimore (1995) synthesised the research findings on school

effectiveness and improvement and identified eleven factors requiring consideration in the design of school improvement programs. These were: Participatory leadership; shared vision and goals; teamwork; a learning environment; emphasis on teaching and learning; high expectations; positive reinforcement; monitoring and inquiry; pupil rights and responsibilities; learning for all; and, partnerships and support. Similarly, in a review of international research, Sammons (1995) identified a common core of characteristics likely to be found in those schools which are most effective in promoting progress, or whose performance is continually improving over time. These characteristics were: Professional leadership; shared vision and goals; a learning environment; concentration on teaching and learning; purposeful teaching; high expectations; positive reinforcement; monitoring progress; pupil rights and responsibilities; home-school partnership; and, a learning organisation. Cavanagh and Dellar (1996) suggested these findings concerned the belief and value systems within the school community. They proposed such attributes were of a 'cultural' nature.

Tagiuri (1968) proposed culture as being one of four dimensions of an organisational environment, the quality of this environment was termed climate. Anderson (1982) used Tagiuri's categorisation of climate to review the findings of school climate research and commented on the paucity of findings linking the ecology, milieu and social systems of school climate to student outcomes. The other dimension, culture, had been proven to influence student outcomes. Anderson (1982) described culture as a social dimension of the school concerned with belief systems, values, cognitive structures and meaning. Donahoe (1993) viewed culture as the values, beliefs, behaviours, rules, products, signs and symbols that bind a school together.

School improvement is portrayed as a process of transforming the culture of the school (Dalin, Rolff & Kleekamp, 1993; Fullan, 1993). School improvement requires effecting changes in the prevailing beliefs and values which govern behaviour within the school, and evaluation of school improvement programs centres based upon identifying changes in school culture (Cavanagh & Dellar, 2001; Cavanagh, Dellar &

Ellett, 1998). Fullan, Bennett and Rolheiser (1990) attested to the difficulty of changing school culture and suggested that sustainable school improvement requires at least three years. However, more recent research has revealed that shifts in school culture can occur over periods as short as one year (Cavanagh, 1997; Cavanagh & Dellar, 1998).

THE DEVELOPMENT OF YULE BROOK COLLEGE

This thesis is an evaluation of the impact and effectiveness of a school reform and improvement program. Specifically, it concerns the transformation of a traditional senior high school into a middle school through application of the principles of middle schooling. In 1999, Maddington Senior High School (SHS) was closed and in 2000, Yule Brook College was opened.

The initial catalyst for change was falling student numbers to a point where a serious consideration of curriculum offerings at Maddington Senior High School upper secondary (post-compulsory) students was undertaken. Whilst the school had maintained middle school numbers of 300, the upper school numbers had remained low for some years and therefore posed major challenges to the provision of broad curriculum offerings. Further, providing for breadth of offerings in the senior years required significant compromise in the middle years. This was evident in the areas of staff deployment, curriculum offerings, and opportunities for the implementation of flexibility initiatives in the middle years.

Against this backdrop - and combined with similar challenges in neighbouring high schools - a major review of educational provision and service in the school and adjacent schools was undertaken as part of the Local Area Education Planning (LAEP) process (Education Department of W.A., 1996). This Education Department initiative was designed to maximise educational opportunities and provision for

students. It was planned to recommend school closure in the case of small and unsustainable student numbers and in some circumstances, re-configuration of schools and learning programs to enhance and improve student opportunities and learning outcomes.

One of the major outcomes of the LAEP in the Cannington Education District was to reconsider educational provision (K-12) across the cluster of schools within the district. It became clear that such a review should also reconsider the traditional primary-secondary dichotomy. The areas of post-compulsory education and the early years of primary education had been the subject of extensive review and reform in W.A. however statistics on alienation, suspension and truancy in the middle years of schooling indicate that a major review and reconsideration of educational provision, structures and approaches in these years was timely. The outcome of the extensive LAEP community consultation was a proposal to re-cast educational provision in the cluster of schools. The result was the development of Yule Brook into a year 8-10 middle school based on a "middle schooling" approach. In July 1998 the Minister for Education approved the plan for an innovative new approach to education in the south-eastern corridor.

Yule Brook College commenced in 2000 as a Years 8-10 middle school. The original buildings and grounds, organisational structures, curriculum, teaching practices and learning approach were evaluated and re-developed. The college was the Education Department of Western Australia's first dedicated middle school catering to Years 8-10 students. The experience gained at Yule Brook College has subsequently informed further developments and educational reform in the middle years across the state.

Many of the features of middle schooling implementation at the college are referred to in the literature on school effectiveness and improvement research. Concomitantly, the preliminary theoretical framework to guide the design of the proposed investigation is based upon this research. In particular, the 11 attributes of

effective schools identified by Sammons (1995) constitute the preliminary theoretical framework.

RESEARCH FOCUS AND QUESTIONS

The key objective of the study has been to examine the effects of school improvement initiatives resulting from the development of Yule Brook College. After 12 months of College operations, questions as to whether changes had occurred with respect to the learning environment and classroom cultures of teaching and learning arose. Specifically, these were formulated as:

1. Did students and parents perceive changes in the classroom culture and learning environment?; and
2. Can the presence or absence of perceptions of change in the learning environment and classroom culture be attributed to aspects of the school improvement initiative?

SIGNIFICANCE OF THE STUDY

A case study that seeks to investigate the effectiveness of a program of middle schooling improvement is significant for a number of reasons. Firstly, the study provides an insight into the process of school renewal and improvement. The issue of school renewal and improvement are the focus of educators internationally and the data expected to derive from this study will contribute to a greater understanding of these processes.

Secondly, the study of lower secondary school reform, often described as the middle years of schooling, has been the subject of extensive international and national research (Beane, 1991; Evers, 1993 and Cumming 1995). Middle schooling is generally accepted as “an overall style of teaching and learning based on well-

founded beliefs about adolescents and their development” (Jackson, 1998, p.12). Subsequently, this has formed the framework for reform and improvement initiatives in many school systems. The study affords an opportunity to gauge the effectiveness of the middle schooling reform program and thereby contribute toward a greater understanding of middle schooling within both local and national contexts.

Thirdly, the Education Department’s “Plan for Government School Education” (EDWA, 1997), identifies lower secondary reform through middle schooling approaches as a priority within the restructuring and rationalisation of educational provision. The process of restructure and rationalisation of educational provision is driven by the associated LAEP policy. The initiatives at Yule Brook College provide an opportunity to consider the impact and effectiveness of government planning and policy. As the first school in Western Australia to emerge with a specific focus on adolescent education, the findings have the potential to advise and inform further, related developments. The expansion of middle schooling approaches is progressing as a consequence of policy decisions taken at this time and there is an urgent need to collect empirical evidence on the outcomes and effectiveness of middle schooling reforms.

Finally, the study has a focus on the classroom attributes of teaching and learning. The basis of the reform and improvement program was founded on pedagogy and effecting changes to the classroom learning environment perceived likely to achieve desired outcomes for students. The data derived from the study will provide an insight into the culture of the middle schooling classroom and the impact of the reform program. The findings will contribute toward a greater understanding of suitable classroom pedagogy for adolescent students.

POSITION OF THE RESEARCHER

The researcher was principal of the school during the period of investigation. To avoid potential researcher bias all data collected was administered by third parties.

LIMITATIONS OF THE STUDY

The study contains several limitations. These are:

1. Only one school undertaking middle schooling reform was investigated. Consequently, generalisations and general predictions made with respect to the study's findings should occur with caution.
2. The size of the respective samples of students and parents investigated may limit generalisability of results schoolwide.
3. The empirical investigation utilised quantitative questionnaires and qualitative surveys for data collection. The validity and reliability of survey type research can be limited by clarity of wording, understanding of terminology and the truthfulness of respondents.
4. Data were collected over an 18 month period and it is possible that this period of investigation might be too short for school improvement intentions to be realised fully.

ORGANISATION OF THE THESIS

Following this introduction, Chapter Two will present a literature review on school effectiveness and improvement. Chapter Three examines middle schooling literature from a school effectiveness and improvement perspective. In Chapter Four the research methodology is outlined. The reform program undertaken at the college and the foundation of the reform and improvement program are outlined in Chapter Five.

Chapter Six details the analysis of data collected during the quantitative questionnaire phase of the study. The qualitative survey results from the student and parent perspective are presented in Chapter Seven. In Chapter Eight the findings of the quantitative and qualitative phases of the study will be considered and discussed. Chapter Nine concludes the study with a summary and consideration of the implications of the study.

SUMMARY

This chapter has described the broad background to the study, the research focus and questions, and the limitations of the study. The chapter concluded with an overview of the organization of the thesis including the content of the chapters.

The following chapter is a review of the school effectiveness and improvement literature relevant to the study.

CHAPTER TWO

SCHOOL EFFECTIVENESS AND IMPROVEMENT

OVERVIEW

This chapter is a review of literature pertinent to school improvement and middle schooling reform. It has been organised according to a school effectiveness and improvement theoretical framework. This framework is drawn from Sammons (1995), who identified 11 factors or correlates of school effectiveness and improvement. In this chapter, each of Sammon's key factors are presented and discussed in consideration of complementary international research. The notion of school improvement being a process of school cultural transformation is then discussed. The chapter concludes with an examination of the application of school effectiveness and improvement research to middle schooling reform.

INTRODUCTION

Following extensive scrutiny of international research into school effectiveness and improvement, Sammons (1995) identified the factors or characteristics likely to be found in those schools which are most effective in promoting progress or whose performance is continually improving over time. These were: Professional leadership; shared vision and goals; a learning environment; concentration on teaching and learning; purposeful teaching; high expectations; positive reinforcement; monitoring progress; pupil rights and responsibilities; home-school partnership; and a learning organization. Together, these determinants of school effectiveness provide a framework to assess the extent of school improvement.

School improvement and enhanced effectiveness sits within the organization and practices of the learning community and its culture. School improvement requires a re-consideration of the characteristics of the learning community and its culture and the linking of inter-connected elements of the school. Effective school improvement requires a change in the culture of the school characterised by a shift in the beliefs, values and attitudes of teachers about their school and professional activity (Dalin, Rolff and Kleekamp, 1993).

The difference between re-structuring and re-culturing is critical in attempting to understand school reform and effectiveness. According to Fullan (1993) curriculum and organisational restructuring do not lead to improvement unless they stimulate a change in school culture. However, what does make a difference is “re-culturing”. This is the process of developing professional learning communities in the school. Re-culturing involves going from a situation of limited attention to assessment and pedagogy toward a situation in which teachers and others routinely focus on these matters in order to make associated improvements. When this happens, deeper changes in both culture and structure can be accomplished (Fullan, 2000). Sustainable change requires a holistic leadership approach guided by clarity of vision and commitment to mission, and with attention given to all aspects of school operations. Transformation of the school culture to improve the educational outcomes of students is inextricably linked to organisational and management issues.

The following sections of the chapter examine the literature on school improvement and effectiveness, and explore the 11 key correlates of effective schools identified by Sammons (1995). These correlates will constitute the theoretical framework for the study

PROFESSIONAL LEADERSHIP

The link between leadership and school improvement is well established. Leadership is at the heart of school improvement and leadership practices based on clarity of purpose, values and beliefs can transform a school into a learning organization (Sergiovanni, 1992).

In an earlier work, Sergiovanni (1984) identified five aspects of leadership that are linked to improvement and effectiveness. These are; technical, human, educational, symbolic and cultural. These aspects or forces are available to administrators, supervisors and teachers to bring about changes to improve schooling.

Technical leadership relates to management techniques and the skills and concepts of planning, organization and management to ensure optimum effectiveness. Human leadership harnesses the social and interpersonal resources of the school by providing support, encouragement and growth opportunities for the members of the organization. Educational leadership is linked to the role of the leader being clinical practitioner with expert knowledge about education and school matters including teaching, program development and supervision. Symbolic leadership focusses the attention of others on matters of importance to the school. The symbolic leader tours the school, spends time with students, presides over ceremonies and rituals, and provides a unified vision of the school through actions and modelling. The final dimension is cultural leadership which is linked to the building of a unique school culture. The cultural leader defines, articulates and strengthens the values, beliefs and cultural strands that give the school its unique identity and bonds together the school community (Sergiovani, 1984)

Leadership based on ideas, principles and values rather than bureaucratic processes is more effective (Sergiovanni, 1999). Successful schools are schools of character and exhibit dimensions of moral leadership that emphasise the bringing together of diverse people to further a common cause. At the heart of their work, principals are

ministers to the school community. They are responsible for promoting and developing the moral character of the school community (Sergiovanni, 1999).

Research on effective schools acknowledges that effective principals are flexible in approach and create and maintain a suitable learning environment and are a key ingredient in improving schools (Duttweiler, 1988). Leadership that is characterised by a purposeful and participative approach lead to school effectiveness. Effective schools have shared leadership (Duttweiler, 1988) and, according to Lontos (1992) have a strong commitment to the notion of the principal as the leading professional.

Effective leaders who improve schools draw upon the literature of both effective schools and research from the corporate world (Cawelti, 1987). A profile of leadership behaviours describing principals who improve schools in successful ways has emerged. Research by Calwelti (1987) identifies four behavioural patterns among effective leaders. Firstly, leaders have a sense of vision that draws attention to key curriculum areas in order to build consensus and seeks solutions. Secondly, they display the capacity to be an organization developer in which skills are used to build teams, resolve conflict and nurture people to gain a commitment to excellence. Thirdly, leaders provide instructional support and have expertise in teaching and the design of effective staff development programs. Finally, the effective principal monitors learning and activities, establishes clear indicators of student performance and provides progress reports to parents and staff.

The style of leadership conducive to school improvement and effectiveness is the subject of extensive school improvement literature. Transformational leadership is associated with school improvement (West, 1994; Cavanagh and Dellar, 1997). Transformational leadership is needed to pursue school effectiveness and development in a rapidly changing educational environment and to meet the challenges of worldwide educational reform trends (Cheng, 1997). Transformational leadership is characterised by a focus on teamwork and comprehensive school

improvement (Liontos, 1992). It is a style of leadership that draws together inspired, energetic leaders and followers with a mutual commitment to a mission that is based on a belief in empowering the members of organizations in order to effect lasting change (Chirichello, 1999). Transformational leadership has a focus on the goals of staff development and the establishment and maintenance of collaborative and professional school cultures. The outcomes of such approaches are engaged teachers with improved attitudes and commitment to school improvement (Liontos, 1992). This leadership style is in contrast to the bartering involved with transactional leadership which usually reinforces hierarchies and staff supervision and usually excludes teacher development. Transactional leadership is based on the exchange of services for various kinds of rewards that the leader controls (Liontos, 1992). Perceptions of principal and leader effectiveness have been found to correlate more positively with transformational than with transactional leadership (Tucker-Ladd, 1992; Chirichello, 1999).

School improvement also requires a re-thinking of school management structures. West (1994) for example, suggests six areas of consideration. These include: the gap between the management team and the school; the mismatch between the school goals/priorities and senior management roles; confusion about management and leadership; the relationship between management and empowerment; time to change; and the gap between policy and practice.

Sergiovanni (1990) had previously identified the developmental stages of leadership for school improvement. These were bartering, building, binding and bonding. Bartering involves an exchange between leader and followers to accomplish objectives. The wants and needs of followers are exchanged for the wants and needs of the leader. The second stage of leadership by building emerges as leaders and followers unite in pursuit of a common goal. The leader provides the climate and interpersonal support to raise human potential and enhance opportunities for fulfilment of followers needs for achievement, responsibility, competence and

esteem. Leadership by bonding focuses on elevating school goals and purposes to a shared level that bonds together leader and follower in a moral commitment. Leadership by bonding also responds to the human desire for purpose, meaning and significance. Leadership by binding is the fourth stage in school improvement and involves the institutionalising or making routine the improvement initiatives. At this stage leadership ministers to the needs of the school and works to serve others so that they are better able to perform their responsibilities.

SHARED VISION AND GOALS

The presence of a school vision is critical to the success of schools. Vision drives educational leadership, the organization of the school and learning in the school (Wallace, Engel and Mooney 1997). An organizational vision can unite a school and its community. Schools must create a collaborative vision that gives all members the opportunity to help create the vision. The school improvement effort depends on a shared vision and the commitment of the school community to a clear and focussed mission (Lezotte and Bancroft, 1985; Scales, 1996). A well articulated vision keeps a school on track (Chance, 1994).

To facilitate the vision, the principal must take the time to understand the school culture and work to integrate the culture with the vision (Smith and Stolp, 1995). Lessons learned from school improvement processes indicate the importance of the entire staff population in school improvement planning. Communicating a school vision in this way can aid in developing a shared vision (Fuentes, 1994). School leaders must be able to promote shared visions, facilitate change, pursue educational knowledge, and build community (Ashby, 1996). School leaders have a critical role as the leading professional (Sammons, 1995).

The literature on improvement, effectiveness and innovation also emphasises the need to consider institutionalisation. Institutionalisation depends on high quality innovations, local and external contexts and the change process. Vision building and the development of a clear, shared vision are desirable for the institutionalisation of school improvement reforms and innovations (Smith, S.C. and Stolp, S., 1995).

A LEARNING ENVIRONMENT

Effective schools research has revealed that aspects of the learning environment distinguish between effective and less successful schools. These are strong high expectations of all students, a carefully developed instructional focus, regular measurement of student learning, and an orderly and positive school environment (Chance, 1991).

One of the correlates of effective schools research is a positive school climate in which positive attitudes from staff and students create a warm orderly learning environment (Licata, 1987). The benefits of a collaborative work and learning environment, mutual help, joint planning, exchange of ideas and participative decision-making, have been confirmed consistently by studies of effective and successful schools (Smith & Scott, 1990). While there is no single model of collaboration in existence, collaboration is a generally bottom up process and cannot be imposed from above. It depends on educator's efforts at self-improvement through teamwork (Licata, 1987). Collaborative schools foster help-related exchange, harmonise teacher's professional autonomy and the principal's managerial authority. The benefits of collaboration include increased professional development opportunities, improved student cooperation and a more collegial environment (Licata, 1987).

The creation of an orderly and supportive work environment depends upon a number of factors. For example: Strong administrative leadership; a cooperative, caring and

committed teaching staff; an educational philosophy that stresses the importance of all students; and innovative programs that recognise and promote the self-worth of every student (Licata, 1987). In order to succeed, students need a safe, nurturing and healthy school where they are provided support to succeed (Boston Public Schools, 1996).

Re-invigorating schools through school renewal also requires innovative planning and design and high quality construction. Such processes need to be linked to the plans for school improvement and be developed collaboratively by the school community (American Institute of Architects, 1998). Factors that require consideration in this process are environmental quality, size and capacity, structural conditions, safety and security, site location, symbolic values and aesthetics (American Institute of Architects, 1998). The importance of a warm, pleasant learning environment is well documented in educational research (James Munroe Junior High School, 1984). Schools with physical environments devoid of landscaping and positive aesthetic appeal do not provide the basis for a quality-learning environment. Schools need to provide students with places to socialise. Improved grounds, buildings and facilities have been noted to improve student morale and inspire student care for and about the environment (James Munroe Junior High School, 1984). School leadership needs to provide appropriate resource allocations to develop and maintain a learning environment with trees, shrubs, settings for socialisation and, where possible, involve students in the design, construction and maintenance of such resources (James Munroe Junior High School, 1984).

Initiatives to bring about school improvement also recognise the development of professional learning environments. In such environments teachers strive for change and deepen and broaden their own and colleagues perceptions of their school. The learning environment is characterised by a blend of collegial challenge and support

and an ethos of collaboration that facilitates professional learning (Ainscow & Southworth, 1994).

CONCENTRATION ON TEACHING AND LEARNING

At the heart of school effectiveness, school improvement and reform efforts is student learning. Research is rich in a recognition that among the key characteristics or correlates of school effectiveness and improvement is a strong focus on teaching and learning (Perrone, 1983; Levine & Lezotte, 1995; Samdal 1999; Fullan, Bennett and Rolheiser, 1990; Newman, 1995; Hersh, 1985; Duttweiler, 1988; Wallace, Engel & Mooney 1997).

Effective schools have a primary focus on the improvement of teaching and learning and a major emphasis on documented outcomes for students. Effective schools monitor quality improvement efforts through the analysis of evidence and the disaggregation of data (Levine & Lezotte, 1995). This requires the collaborative efforts of the school community and a comprehensive needs assessment and analysis of effective schools and effective teaching (Levine & Lezotte, 1995). School improvement and classroom improvement are interrelated and the teacher forms the necessary link. For classroom improvement to occur the teacher must work on content, instructional strategies, classroom management, and instructional skills. Improvement also requires teachers to adopt the culture of “teacher as learner”. This requires teachers to work on technical skills, adopt a “teacher as researcher” approach, engage in on-going reflective practices and work collaboratively with peers and students (Fullan, Bennett and Rolheiser, 1990).

Successful teaching and learning is based on cooperation among teachers, between teachers and students, and among students (Ruest, 1994). Cooperative learning provides a context in which peers hold each other accountable for agreed standards of

conduct. Socially responsible behaviour in the form of helping and sharing knowledge and expertise has been observed to be an integral part of the learning process and is related to academic achievement (Wentzel, 1999). This author further acknowledges that adolescent peer groups provide a direct link between perceived support from peers and motivation at school. Cooperative learning results in a greater transfer gain from what is learned in one context to another. It also allows more time on task than does competitive or more individual learning (Johnson and Johnson, 1999). Cooperative groups help students to establish and maintain friendships with peers. With these more positive relationships, there are corresponding improvements in productivity, feelings of personal commitment, responsibility for work tasks and a willingness to take on more difficult tasks. Cooperative learning is considered to result in greater psychological health, higher self-esteem and greater social competence (Johnson and Johnson, 1999).

The goal of improving teaching and learning is supported by the establishment of high standards, and assessments that measure achievement and improvement (Boston Public Schools, 1996). Two complementary constructs which appear to be crucial determinants of effectiveness are active learning time and quality instruction (Anderson, 1984). Purposeful teaching approaches that carefully organise and sequence the curriculum and clearly explain and illustrate what pupils are to learn enable student learning to occur (Doyle, 1987). This author further acknowledges that students achieve at higher levels when a teacher explicates and emphasises academic goals and expects students to be able to master these goals. Throughout the process, student progress must be monitored through direct and specific questioning and feedback must be prompt and frequent. Student must have opportunities to practice and refine skill development through repetition.

Enhancing academic achievement is a major concern of educators. Most educationalists agree that academic achievement has an immediate effect on self-esteem and general student well-being (Samdal, Wold & Bronis, 1999). Students who

succeed academically tend to enjoy school. Academic achievement determines the future for students and builds the basis for participation in the community (Samdal, et.al. 1999). What then are considered the features of effective teaching? Effective teaching should be purposeful with high expectations; students should be given opportunities to organize their work; lessons should elicit and sustain pupil's interests and be perceived by students as relevant and challenging; work should match pupil's abilities and learning needs; pupil's language should be developed and extended; a variety of learning activities should be employed; and good order and control should be based on skilful management of pupils, involvement in lessons and mutual respect (HMI, 1990; Thompson, 1984).

Porter and Brophy (1988) identify eight characteristics of effective teachers. These are: Having clear instructional goals; being knowledgeable about content, teaching strategies and students needs; communicating expectations with students and accepting responsibility for student outcomes; devoting time to practices that enrich and clarify the content; teaching students meta cognitive strategies; monitoring student's understanding through regular feedback; using integrated curriculum approaches; and being thoughtful and reflective in their practice. Importantly, effective teachers learn how to elicit student participation and proceed to use student's ideas as a basis for helping students construct a new, more reasoned, accurate and disciplined understanding. Students who are actively engaged in class are learning. Effective teachers teach for student learning. Outstanding teachers enthuse students, treat them as individuals, know their content, are loving and warm, teach for learning, empathise with students and prepare students for life beyond school (McInerney and McInerney, 1998).

The notion of enhanced student involvement and participation in their education is the central focus of integrated curriculum approaches. Supporters of integrated curriculum approaches argue that schools should provide a general education in which the curriculum focuses on widely shared concerns of adolescents and the larger

world rather than specialisation among separate subjects (Beane, 1992). Integrated approaches involving multidisciplinary programs that inter-connect different subjects through common themes engage students in their learning (Drake, 1998). Beane (1992 and 1995) argues that the curriculum ought to serve students and adolescents should not be viewed as victims of their stage of development. The outcome of an integrated approach is a curriculum organised around themes rather than traditional subject disciplines. Students are given a voice in curriculum planning with meanings created by students rather than imposed by adults. The curriculum integrates affective and cognitive outcomes and is inter-connected and holistic. As well, the instructional program is not divided into blocks of time arbitrarily devoted to subject disciplines (Beane, 1995).

However, irrespective of assertions about the merits of different teaching styles and approaches, research reveals little concrete evidence in favour of one teaching style over another (Mortimore and McBeath, 1994). Merson (1990) argues that it is a sterile debate with little reference to clear evidence. Research appears to support the application of a combination of approaches suited to the learning context. Notwithstanding the debate about teaching style, contemporary instruction requires a range of skills in order to be effective. Mortimore and McBeath (1994) identified the general teacher skills of organization, analysis, synthesis, presentation, assessment, management and evaluation. Joyce and Showers (1991) argued that models of teaching are in fact models of learning. These researchers identified four basic models of teaching: Cooperative learning approaches; information processing; synectics and non-directive teaching; and direct instruction. Essentially, each model helps students to become more effective learners.

The Education Commission of the States (1996) reported that despite encouraging signs, American students and schools were losing ground. The report concluded that the most effective school improvement strategies strengthen the teaching and learning process. It noted that flexibility strategies such as charter schools and site-based

management worked best when combined with strategies that directly affect teaching and learning. With these concerns in mind educational authorities concerned with middle schooling outcomes have re-focussed on teaching and learning in an effort to raise standards and student outcomes.

Newman (1995) promoted the concept of an “authentic pedagogy”. This is consistent with an active learning perspective and clear standards of intellectual quality, rather than teaching techniques and processes as the central target of innovation. Linked to authentic pedagogy is “authentic academic achievement”, the construction of knowledge, disciplined inquiry and value beyond school.

Effective school research acknowledges that a concentration on teaching and learning is at the heart of school improvement. A focus on achievement, an academic emphasis and maximisation of learning time have a positive effect on student progress (Sammons, 1995).

HIGH EXPECTATIONS

Expectations are a powerful tool for change and improvement (Stoll & Fink, 1996). Although based upon our knowledge, beliefs, attitudes, stereotypes and norms, expectations govern our behaviours and importantly are used to evaluate appropriateness of behaviours (McCroskey, 1998).

Effective schools researchers identify high expectations as a key correlate of school improvement frameworks and the effective schools research model (Evers & Bacon, 1994; Levine & Lezotte, 1995; Fredericks & Piltch, 1988). High expectations for students as well as school staff are characteristics of effective and improving school (Gibbons, 1987). In the middle school years, high expectations, high content of challenging materials and high levels of support from parents, teachers and the

community are essential (Berry, 1995). Teacher expectations directly effect students' achievement and attitudes (Cotton, 1991). Educator's low expectations of themselves and negative attitudes toward student potential is viewed as the root cause of many schools' problems. These situations require the re-drafting of school mission statements, the establishment of standards, empowering staff with knowledge and increased autonomy at the school level, and active school-community partnerships (Murphy, 1990).

High expectations of student achievement effect school improvement efforts (South Carolina School Improvement Process, 1986). Furthermore, high expectations must permeate the school culture and must also be conveyed by the entire staff at both school, community and classroom levels (Kritek, 1986; Purkey & Degan, 1985; Minnesota School Effectiveness Program, 1984). Successful schools are characterised by high expectations of students and have academically rich and challenging programs.

MONITORING PROGRESS AND POSITIVE RE-INFORCEMENT

Effective schools frequently monitor student progress. Careful monitoring of student progress and public recognition of student accomplishments improves academic achievement (Lezotte & Bancroft, 1985; Stavros, 1982; Thurlow, 1987; Gibbons, 1987).

Pupils achieve at higher levels when teachers frequently ask direct and specific questions to monitor student progress and check student understanding of material. The provision of prompt and frequent feedback to students ensures progress and success (Doyle, 1987). Doyle also recognised the important role of correcting mistakes and allowing pupils to use a skill until it is over-learned and automatic. He

also acknowledged the importance of regular reviews and holding students accountable for their work as a strategy for school-wide improvement.

A continuous system of monitoring student progress will improve student outcomes (Fredericks and Piltch 1988). Beckers (1992) also suggests a testing protocol to support effective learning. Other research findings acknowledge the effectiveness of frequent monitoring of student progress including teacher monitoring of class assignments and day-to-day work activities (Stavros, 1982). Effectiveness research similarly emphasises the importance of a culture of positive reinforcement. A positive school climate that exhibits a positive attitude on the part of the entire staff and student body and is evident by overt behaviour that creates a warm, orderly learning environment supportive of student success (Licata, 1987).

Effective schools exhibit fair discipline systems that establish a safe and orderly learning environment (Druian, 1986; Beckers, 1992). Discipline systems must be clear and consistently enforced in order to establish a positive school climate conducive to student learning and achievement (Licata, 1987). Good order and control should be based on the skilful management of pupils, their involvement in lessons and a culture of mutual respect (HMI, 1990). These findings are supported by research concerning parent perceptions. When asked to provide perceptions of characteristics vital to successful school programs, parents considered safety and security as the most important. Other factors rating highly were, continued recognition for student achievement and systems for rewards and incentives (Murray, 1995). Rewards and incentives promote school effectiveness (Mortimore, 1993). Licata (1987) promotes a range of strategies including a school mission that emphasises that every student will receive at least one successful experience during the year and recognition initiatives such as lunch with the principal, student incentive programs leading to monetary rewards and/or gift certificates and student of the month.

In many OECD (1995) countries there is general concern about the overall performance of education systems and as a result the assessment of school performance is being used to judge schools, improve schools and account for system performance (OECD, 1995). With this in mind mechanisms for accountability have received extensive consideration. In "Schools Under Scrutiny" (1995) the authors offer four key messages for school accountability strategies. These are: Objective, external assessment and "friendly" advice from those acquainted with the school; the establishment of performance indicators related to the quality of a school's education; acknowledging that making schools accountable is insufficient to improve performance, though desirable in terms of transparency and democracy; and to build on the expertise and professionalism of teachers in order to develop an unthreatening but demanding climate of self review in schools.

Monitoring progress also requires evaluating school performance and progress. Effective schools have a primary focus on the improvement of teaching and learning, a major emphasis on documented outcomes for students, and analysis of evidence by disaggregation of data to monitor for quality and equity (Levine & Lezotte, 1995). Evidence that schools can collect to support school improvement efforts includes achievement data, student behaviour data, satisfaction surveys, student participation and staff activities (DuFour, 2000). Decision-making based on building a base of quality data is considered to be critical to school improvement efforts (Bernhardt, 1999).

The resultant school performance review methodologies developed by educationalists makes use of a range of strategies. Components include annual statewide performance reports against established benchmarks, annual individual school progress reports, suggested school improvement goals and school self-review reports on local indicators (Fetler, 1989). Other strategies include administrator, teacher, student and parent surveys to measure elements of school organization related to effectiveness (Chubb, 1987; Cavanagh & Dellar, 1997; Meyers and Carlson, 1992),

the development of matrices to define the effectiveness of school improvement initiatives against their baseline data (Bramley and Fletcher, 1995) and criteria-based improvement plans and norm-reference expectations (Webster and Mendro, 1994). A recent study on the measurement of school performance outlined a system that captures the complexity of schools. The system incorporates a hybrid model of critical indicators that report on levels of performance, cross cohort changes, growth or gain scores, and value added measures. The model also includes the establishment of specific standards set in a collaborative manner by stakeholders and a cycle of continuous school improvement planning (Heistad & Spicuzza, 2000). The school improvement effort requires a systematic approach to the monitoring and evaluation of student and school performance. The effort must also be supported by systems of positive reinforcement and feedback.

PUPIL RIGHTS AND RESPONSIBILITIES

The decisions of educator's affect the lives of students and for this reason it is important that input is sought from students about their school life (Newman, 1992). While some educators may be concerned that students will make irresponsible decisions, Newman believed that experience shows students can make excellent decisions when guided in the decision-making process by a caring and open adult.

To establish an environment that encourages students to value their school experience, schools must involve students in decision-making. Example of where and how this may occur include: Goal setting and having students dream and visualise what the school might be; strategic planning and involvement in achieving the school's goals; and importantly, actual involvement in decision-making that affects the school (Newman, 1992). Issues of student control, responsibility and general empowerment may consequently be viewed as linked to student self-esteem. Viewing students as fully-fledged organisational members who participate in school planning,

problem-solving about school curriculum, grading policies, teacher evaluation procedures, and budgeting, promotes student responsibility, self-esteem and engagement in education (Schmuck, 1979). The role of responsible teaching in which the professionally empowered teacher moves students toward becoming empowered and independent learners is also important (Suleiman, 1998). Suleiman argued that teachers must be professionally appealing to students, effective in learning-teaching contexts and professionally ethical. They must believe in and act upon a belief in the student's potential for learning.

Moore (1996) stressed a responsive pedagogy derived from cognitive, social, and contextual constructivist perspectives, and making use of student's present knowledge and experiences as the foundation for learning. A classroom pedagogy that focuses on empowering students and creating a culture of learning has a positive effect on all individuals in the classroom. Collaborative learning and group approaches create positive independence, individual accountability and enhanced social skills (Johnson and Johnson, 1999). Cooperative groups help students establish and maintain peer friendships. As relationships become more positive, there are improvements in productivity, feelings of moral commitment, increased responsibility for work and a willingness to take on and persist with difficult tasks (Johnson and Johnson, 1999). Interdisciplinary teams are also shown to promote student's self-esteem and attitudes toward school. Genuine empowerment through positions of responsibility for the school and their individual learning are shown to engage students in the learning process and raise self-esteem. Allowing all affected persons a share in decision-making processes develops a spirit of trust and a focus on continual improvement. Engagement, in turn, leads to improved student outcomes and school effectiveness (Mizelle, 1993).

The research demonstrates that recognition of students rights and responsibilities through the establishment of structures which provide students with positions of responsibility and encourage control of work, significantly impacts on student self-

esteem and performance. High levels of student participation and engagement in the life of the school and reform initiatives may thus be seen to support school effectiveness and improvement.

HOME-SCHOOL PARTNERSHIP

The importance of parental involvement in children's learning is a key correlate of student learning and school effectiveness. School practices that develop parent involvement have been proven to increase student achievement and commitment (Coleman, 1998). Home-school relationships are a key attribute of effective schools and are a powerful factor in enhancing student performance (Coleman, 1998; Cheng, 1997; Melnick & Fiene, 1989; Cawelti, 1987).

The relationship between successful home learning environments and effective schools is strong and provides schools with a framework for improvement (Chrispeels, 1996). Communication is seen as the basic foundation for learning and is also the means for developing parent involvement programs and building a strong home-school partnership. Parents need to help their children succeed at school (Chrispeels, 1988). The wider family group is also important for children's learning, development, and school success (Epstein, 1992). The influence on children's attitudes, values and achievements are higher when parents become directly involved in the educational program of their child (Hobson, 1979). Epstein (1992) stated that students in all years have a more positive school attitude, higher aspirations and other positive behaviours if their parents are aware, knowledgeable, encouraging and involved. Parental involvement can increase student self-esteem and motivation and decrease drop-out rates (Rockwell et.al. 1995). Paprikakou (1997) found that parental expectation can serve as a motivating force for guiding student's academic learning. Krumm (1996) emphasised the influence of parents in creating and improving the conditions that support learning. Students who are positively influenced at home are

more motivated to concentrate on their studies. Assistance at home has an important impact on children's achievement, attendance, school adaptability and classroom behaviour (Davies & Johnson et.al. 1996). While research studies provide evidence that parental involvement plays an important role in the academic progress of students there is a decline in parental involvement in the adolescent years. Parents of adolescent students do not appreciate the critical role they play in their child's academic achievement (Paprikaku, 1997).

Coleman (1998) found that many parents believe they can help their children to be successful students. When they were present in classrooms they appreciated the opportunity to observe curriculum implementation, performance expectations of the teacher and how their child was performing in comparison to peers. Parents need assurance that they can contact the teacher at any time about anything and always feel welcome in the school. Strong partnerships between school and home can help parents understand the work of the school and build pro-active and supportive relationships (Rockwell et.al. 1995). Parental involvement is designed to help school administration and teachers conduct more effective programs so that more students succeed. Parental involvement contributes to more effective teaching and a more positive school climate (Epstein, 1992). Coleman (1998) believes that teachers who actively encourage parent involvement enjoy an increased sense of personal efficacy. Teacher and parent collaboration develops in teachers more positive feelings about their teaching, about their school and raises expectations and appreciation of parents as partners (Epstein, 1992).

Parental involvement can take many forms. According to Epstein (1992), Rockwell, Andre & Hawley (1996), Sullivan (1998) and Trusty (1999) there are six categories of parental involvement. These are: Parenting practices; communication; volunteering; supporting learning at home; participation in school decision-making; and collaboration with the community. Communication is particularly important, Soliman (1995) identifies it as the basis for all interaction between school, parents

and community. Communication is regarded as the first step in achieving closer school community relationships and a higher degree of parental involvement in school decision-making. It is also symbolic of trust and respect among parents and school staff and contributes to the quality of relationships in class and between students and teachers (Coleman, 1998).

Parents are the most influential force in children's development and success in learning depends not only on the organization of classroom conditions, but also conditions at home (Krumm, 1996). Parents can be involved in a range of learning activities including skill development, providing facilities to support learning, supervising and tutoring (Kelleghan, Sloan, Alvarez & Bloom 1993). School and parent partnerships in decision-making are considered the culmination point of parental involvement. Participation ensures the right of parents to have a voice in matters that have direct consequence for their child's education (Soliman, 1995). Cavarretta (1998) promotes the role of parents in continuous school improvement planning and acknowledges the outcomes of partnership, trust and accountability for school and student performance. Homes and schools play a complementary and mutually reinforcing role in children's education. Parental involvement enables students to accept responsibility for their own learning, actively participate in the classroom, and develop positive relationships with teachers (Coleman, 1998).

Parental involvement in schooling can therefore be viewed as beneficial for parents, teachers and students. It influences student's perceptions, attitudes, values and achievement leading to increased motivation and purpose which in turn leads to increased achievement.

A LEARNING ORGANIZATION.

Learning organizations can develop a sound shared vision when personnel base discussions on a collective investigation of research, emphasise meaning, identify credible improvements, and share their thoughts and hopes while working toward consensus (DuFour, 2000). For a school to be effective, all stakeholders, including students, teachers, administrators, board of education members, office personnel and community members, must develop collaboratively, a common vision that can guide the developments of that school (Swaim, 1996).

Schools research acknowledges practice-oriented staff development at the school site as a key correlate of effective schools (Levine and Lezotte, 1995; Reynolds, 1993; Talbert and Smoyer, 1984). Effective schools are also committed to extensive staff development (Duttweiler, 1988; Fuentes, 1994; Smith & Scott, 1990; Ainscow & Southworth, 1994; Chance, 1991). Wallace (1982) recognised that school improvement will only occur as a result of changes in attitudes, perceptions and behaviours. Only when teachers have worked out their own concerns with regard to improvement strategies will they implement such strategies effectively in the classroom. Staff development activities thus need to centre on the need for more effective schooling, increased student achievement, more effective discipline and more stringent demands on students to learn. Wallace (1992) argued that teachers need to become more diagnostic, prescriptive and reflective in their planning and need professional development support to develop these skills and competencies. DuFour (1991) believed a recurrent theme in school improvement efforts is the critical significance of staff professional development and the role of the principal. Effective school improvement and staff development is underpinned by an acknowledgement that the school provides the best arena for school improvement efforts. Wood (1993) detailed a five stage school-based approach to staff development: readiness, planning, training, implementation, and maintenance. The model is based on the belief that the school is the basis for change and improvement.

The model advocates the development of ownership, the continuous improvement of all staff through professional development, the design of in-service education based around adult learning theory and a focus on staff development to support school improvement. School improvement thus means people improvement. Schools seeking meaningful improvement must therefore make a commitment to professional development programs that are purposeful and goal-directed.

Jennings and Meis (1987) proposed a professional development approach that focuses on teachers' ability to solve critical professional problems. Through this process, it was envisaged that teachers be given the responsibility for planning, implementing and evaluating their own staff development. Their program for school improvement is a cyclical process. It involves: Establishment of teacher awareness, readiness, and commitment to the program; an interactive needs assessment; preparation of a staff development plan; implementation of the plan; plan monitoring and evaluation; and reassessment of needs. Improved work relationships and staff communication are seen as the key to the success of individual school programs and academic achievement rates improved when programs achieve that goal. Similarly, Showers (1984) emphasises that in-service training must be embedded in coherent school improvement programs in order for change to be sustained. Staff development is critical for school improvement if new behaviours are to be integrated into the classroom. Schools must therefore examine priorities for staff development and the allocation of necessary funds. Principals must be able to facilitate the implementation of professional development systems by establishing new norms that reward collegial planning, collaborative teaching, constructive feedback, and experimentation through collaborative problem solving with teachers. Fuentes (1994) believes there are a number of lessons to be learned from school improvement initiatives aimed at improving outcomes for students and closing the gaps among various student groups. Professional development has a greater impact when provided to faculties and teams as a whole and reflection and critical inquiry are important components of staff development.

Fullan, Bennett and Rolheiser (1990) view improvement as an interrelationship between school improvement and classroom improvement. In this model the critical link is the “teacher as learner” who must work on technical repertoire, collaboration, reflective practice and teacher as researcher. Effective teachers are thoughtful and reflective in their practice (Porter & Brophy, 1988) and require evaluation skills in order to continually improve their teaching (Mortimore, 1994). Reflective practice is a critical ingredient for staff growth and development and school improvement. Engaging staff in cognitive processes and an open perspective that involves self-examination in order to gain understanding and improve the lives and educational outcomes of students is the basis for successful reform and improvement (Montie, York-Barr, Kronberg, Stevenson, Vallejo & Lunders, 1998). Reflective teaching requires teachers to engage in serious thinking and analysis of their pedagogy and about the learning environment and constraints in the curriculum, school and social contexts in which they work (Dougherty, 1997). Reflective and professional dialogue supported by a climate that promotes the teacher as researcher and learner is at the centre of effective schools (Newmann, 1995).

The creation of a learning organization is at the heart of school improvement and effective teaching and learning. A learning organisation in which there is a commitment to staff development and reflective practices will therefore assist with the realisation of school improvement.

SCHOOL CULTURE

In recent times the quest for reform and improvement has been focussed sharply on a broader understanding of factors that promote effectiveness and improvement. Accordingly, school improvement and effectiveness research has given consideration to school climate, culture, structures and procedures (Chrispeels, 1992).

The cultural approach to school improvement suggests that teachers and students are strongly influenced by the culture of its school, its norms and conventions. Attitudes and beliefs, attitudes to change and cultural norms can facilitate school improvement (Boyd, 1992). Rossman (1985) acknowledged the relationship between efforts to improve schools, the definitions of effectiveness that drive these efforts and how these are affected by the cultures or inner life of the school. The deeply held beliefs or cultures of adults in schools shape effectiveness and local improvement efforts. Rejuvenating ineffective schools require a school culture able to handle the paradigm of change and serve to create a more cohesive organization (Reynolds, 1995).

According to Hopkins (1994) the key to bringing about sustained school improvement is the development of collaborative work cultures. Collaborative cultures have been associated with achieving various school reform objectives for students and teachers. Collaborative cultures facilitate professional learning, collegial challenge and support (Leithwood and Jantzi, 1990; Ainscow & Southworth, 1994). Kritek (1986) notes a distinct culture at work in schools that are moving toward effectiveness. Staff in more successful schools appear to accept responsibility for school improvement.

Sergiovanni (2000) links school character and school improvement and a school culture characterised by layered loyalties, shared accountability, ideas built on local initiatives, and higher levels of thoughtfulness such as care and civility. Cavanagh and Dellar (1997 and 1998) viewed schools as learning communities rather than as formal organizations when they examined school culture through application of sociological constructs. These authors depicted a school improvement model of school culture based on the relationship between six cultural elements and their effect on the overall school culture. These elements effect school improvement and include: Professional values; emphasis on learning; collegiality; collaboration; shared planning; and transformational leadership. These elements are vehicles for improving the effectiveness of schools. Successful school improvement can therefore be viewed as dependent on using culturally oriented planning and implementation strategies.

School culture is a vital factor in school effectiveness and school improvement (Hargreaves, 1995). Curriculum and organisational change and re-structure on their own do not lead to improvement unless they stimulate a change in school culture (Fullan, 1993). School improvement requires a change in the culture of the school (Dalin, Rolff & Kleekamp, 1993).

School effectiveness and improvement initiatives, whilst guided by extensive educational research that has identified specific aspects of effective schools, require a holistic approach whereby particular attention is paid to a number of important and interrelated elements. Importantly, these include reform and improvement initiatives that have the culture of the learning community at their core. The notion of an effective school culture is a unifying construct embracing conceptions of effective schools and school improvement (Cavanagh & Dellar, 1997).

CONCLUSION

School effectiveness and improvement research has provided educational leaders with knowledge for directing school improvement. However, the process of improvement is complex and research indicates that to effect deep and sustainable school change, a multiplicity of factors need to be addressed. Identification of such factors informs both the design of school improvement programs and the evaluation of these programs. Synthesis of the attributes of effective schools into lists or models provides a theoretical structure for empirical investigation of specific school improvement initiatives. The utility of the Sammons (1995) model for this purpose has been evidenced by the large body of school effectiveness research examined in this chapter – most of which supports Sammon’s synthesis.

SUMMARY

Research into school effectiveness and improvement has identified a number of characteristics of schools promoting progress and whose performance is continually improving over time. In this chapter, these correlates or factors of school improvement and effectiveness have been discussed and provide a theoretical framework to underpin the empirical investigation.

The following chapter is an examination of literature on middle schools and middle schooling. This is discussed in terms of the literature on school effectiveness and school improvement previously presented.

CHAPTER THREE

LITERATURE REVIEW II: MIDDLE SCHOOLING FROM A SCHOOL EFFECTIVENESS AND IMPROVEMENT PERSPECTIVE

OVERVIEW

This chapter commences with a presentation of a theoretical framework for organising the literature on middle schooling and middle schools. The foregoing chapter then proceeds with an examination of pertinent literature, structured according to the framework. It concludes with a discussion of the similarities between middle schooling and the body of school effectiveness and improvement research presented in the previous chapter.

A CONCEPTUAL FRAMEWORK FOR MIDDLE SCHOOLING

There is worldwide concern and debate with regard to adolescent alienation. Further, there is a public perception of falling standards and a growing divide between levels of student achievement. The challenges of the middle years consume educators worldwide.

Teaching and learning in the “middle school” concerns meeting the educational needs of young adolescents. Young adolescents make up a distinctive developmental group and are placed across the two cultures of primary and secondary schooling. Schools are dealing with a developmental group who have characteristics and needs different from young children and emerging adults in their late adolescent years. However, in

traditional schooling this phase of their education is interrupted by the transition from primary to secondary schooling. Middle schooling approaches are designed to cater for the developmental needs of young adolescents through provision of integrated and continuous instructional programs (Eyers, 1993).

According to Dougherty (1997), middle schooling is underpinned by four philosophical approaches. These are: Invitational education; democracy; constructivist teaching; and reflective teaching. Invitational education involves working from the language that expresses care and is reflected through modelling, dialogue, practice and confirmation. Democratic schools make a commitment to conditions and processes that encourage mutual respect and continuous dialogue among all participants. Constructivist teaching is based on a belief that learning is a social process in which teachers help learners to internalise and reshape their information or reinvent their knowledge. Reflective teaching is the final approach and requires serious thinking about the origins and consequences of the applied pedagogy and the situations and constraints embedded in the instructional, curricular, school and social contexts of the learning environment. These approaches are complementary and provide a basis for educators to provide meaningful experiences to adolescent students (Dougherty, 1997).

The philosophical approaches outlined by Dougherty (1997) provide a framework for a consideration of pertinent middle schooling literature. Table 1 details this framework and the key elements of each construct or philosophical approach. The framework provides an outline of the key attributes of middle schooling and middle schools.

Table 1.

A Framework For Middle Schooling

(Dougherty, 1997)

Major constructs	Sub-constructs
Invitational Education (Working from the language that expresses care and is reflected through modelling, dialogue, practice and confirmation)	Positive Learning Environment Focus on Relationships Embedded Pastoral Care Student Empowerment Cooperative Learning Teacher as Coach and Mentor Learning Community
Democracy (Democratic schools make a commitment to conditions and processes that encourage mutual respect and continuous dialogue among all participants)	Collaborative Teaching and Learning Teamwork Student Responsibility Negotiated Curriculum Students as co-workers Community Partnerships
Constructivist Teaching (Based on a belief that learning is a social process in which teachers help learners to internalise and reshape their information or reinvent their knowledge)	Integrated teaching and learning Student Centred Teacher as Coach and Mentor Problem or Challenge Based
Reflective Teaching (Serious thinking about the origins and consequences of the applied pedagogy and the situations and constraints embedded in the instructional, curricular, school and social contexts of the learning environment)	Reflective Practice Action Research On-going Professional Development Pedagogy for the Middle Years

INVITATIONAL EDUCATION

Invitational education describes practice designed to create a total school environment that summons people intentionally in schools in order to realise their potential. Its purpose is to make schooling a more exciting, satisfying and enriching experience for all involved in educative processes (Purkey, 1991). It centres on five basic principles. Firstly, people are valuable, able, and responsible and should be treated accordingly. Secondly, education should be a collaborative, cooperative activity. Thirdly, the process is the product in the making. Fourthly, people possess

untapped potential in all areas of human endeavour. Finally, this potential can best be realised by places, policies, programs and processes specifically designed to invite development and by people who are intentionally inviting with others personally and professionally (Purvey and Novak, 1996).

According to Novak (1981) invitational education is a system that intentionally invites students to see themselves as valuable, able and responsible and as a result to behave and act accordingly. It is a means of treating students fairly, humanely and effectively inviting school success. An invitational approach has a focus on people rather than systems. It is holistic, stresses the cooperative and inclusive nature of the education process, and emphasises a teaching and learning process in which students are continually using their initiatives (Brinson & Miller, 1995). An invitational approach works from a common language that expresses care and is reflected through modelling, dialogue, practice and confirmation (Dougherty, 1997). Schools must continually demonstrate a belief in students and be a place where students will not only meet important academic goals but also acquire good intellectual habits and develop their own moral agency. Only then will students go on to make wise and principled decisions, even when they are on their own (Sizer & Sizer, 1999). Students learn not just from their classes but from their school's routines and rituals, especially about matters of character (Sizer & Sizer, 1999).

Research into the middle years of schooling highlights a perception that adolescents feel boxed-in and bored (Scales, 1996). Although in many classrooms students tend to be apathetic or indifferent to learning activities, invitational approaches have evinced a high degree of success in engaging greater student interest (Lang, 1988). Studies have shown that students recognise clearly the difference between inviting and uninviting teachers (Lang, 1988). Invitational approaches result in students beginning to reflect more about their reasons for attending school, become clearer about their goals and post-school aspirations and take more responsibility for their learning (Lang, 1988).

The enhancement of self-esteem is a basic responsibility of the middle level schools (Beane & Lipka, 1987). Self-perception is a key ingredient in student engagement in learning and ultimately success in learning. In the middle years this is exacerbated by the adolescent's unpredictable feelings of self and their physical and emotional development. A middle schooling approach requires structures that define and regulate day-to-day life in the school. These institutional features include such things as climate, decision-making processes, rules and regulations, reward and punishment systems, grouping, relations with the outside world, and morale. The way in which these features are planned or carried out contribute to positive self-perceptions and they may debilitate self-worth (Beane & Lipka, 1987). Friedland (1992) recognises the link between self-esteem and improved learning outcomes. To reduce student isolation cooperative learning, outcomes based instruction and confluent education must become widespread.

Research also reveals that developmentally responsive middle schools are characterised by a commitment to young adolescents and a shared vision (Scales, 1996). At the centre of middle schooling approaches is the implementation of developmentally appropriate education and helping young adolescents negotiate the transition from childhood to emerging adulthood (Stevenson, 1992). Underpinning this approach is pedagogy for middle school students. Pedagogy that is thoughtful and allows adolescents to reconstruct images of the adult world through self exploration, adult-adolescent bonding and experience the love and care of appropriate role models (White-Hood, 1994).

A sense of community underpins the invitational approach. Novak (1983) likens schools to an inviting family in which there is respect for each individual, a cooperative spirit, sense of belonging, pleasing environment and positive expectations. Cooperative learning approaches help students establish and maintain positive and rewarding relationships with their peers. Cooperative learning results in

greater psychological health and corresponding improvements in productivity, commitment and responsibility for their learning (Johnson & Johnson, 1999). These approaches provide a learning context in which peers hold each other mutually accountable for their learning and support socially responsible behaviour in which students help and share knowledge and expertise throughout and as part of the learning process (Wentzell, 1999). Cooperative learning approaches allow more time on task when compared to more competitive and individual learning and enables students to build self-esteem, social competence and maintain positive peer relationships during the critical adolescent phase of schooling (Johnson & Johnson, 1999).

DEMOCRACY

A democratic orientation to schooling is critical to the creation of a supporting and engaging learning environment and culture. Democratic schools make a commitment to conditions and processes that make mutual respect and continuous dialogue possible for all participants (Dougherty, 1997). A democratic culture for learning invites student participation and decision-making on educational content, and learning and teaching practices (Levin, 2000).

Democratic schooling is an extremely important factor in the education of young students to participate in a democratic society (Hepburn, 1982). Students who experience democratic leadership are more effective in accomplishing their social and work goals. Furthermore, a democratic orientation is supportive of a safer school environment by minimising student frustration and aggression and maximising school identity (Hepburn, 1982). Mosher (1994) argued that there are three compelling reasons to engage students in an experience of democratic schooling. Firstly, students are more likely to understand and value democracy and develop the skills for effective citizenship through first hand experience (Lockwood, 1997). Secondly,

democratic education is a powerful stimulus for full human development, including cognitive, social, political and moral. Finally, democratic governance offers a practical, effective means of improving the school's moral culture and affecting the operative moral norms that shape the behaviour of the school's members. Adopting democratic practices in the classroom have been successful in increasing student participation in decision-making (Hepburn, 1983). Beane (1999) believed that a commitment to democratic values and practices are an essential ingredient to responding to the needs of students in the adolescent years. A curriculum forged in democratic values and aspirations is required to rectify teaching and learning conditions and level the school resource playing field (Beane, 1998).

Glickman (1993) encouraged schools to become more democratic, moral and purposeful through developing a school covenant based on core principles of teaching and learning. Creating a more moral and democratic school supports school renewal and works to create optimal conditions for learning. A vision of schools - as communities of learners based on democratic discourse, supported by enabling policy, and grounded in learner centred practice - provides the basis for engagement and participation (Darling-Hammond, 1994). Gibson (1971) identified a democratic school as a key component of quality education and quality schools. A democratic orientation supports school reform, particularly when supported by greater democracy in school decision-making, shared governance and parental consultation (Dixon, 1998). An organic view of school reform that supports the development of learner centred schools, and teachers and students working collegially are seen as the key element in successful educational change (Darling-Hammond, 1994).

Advocates for a more democratic approach, particularly in the middle years, believe that such an orientation promotes students' active and pleasurable participation in the learning process (Gips, 1989). Shared decision-making in classrooms that involve students in curriculum decisions, playground arbitration and other aspects of their school lives are central to reform and improvement initiatives (Diessner, 1990). When

students are given a voice in curriculum planning, meanings are created by students rather than imposed by adults. This promotes a curriculum that serves students and allows them to address questions they have about themselves and the world around them (Beane, 1992). Beane (1992) argues that the curriculum must be planned by teachers and students in order to respond to students developmental needs, create meaning and promote engagement. A negotiated curriculum approach facilitates learning and requires interaction between teacher, student and content to promote optimum learning (Boomer, 1978).

A democratic approach is founded on empowerment and the meaningful participation of all stakeholders in the education process, particularly adolescent students in the middle years. For students in these years a democratic approach expresses a language of respect, participation, empowerment and collaboration.

CONSTRUCTIVIST TEACHING

Constructivist teaching entails a belief that learning is a social process in which teachers help learners to internalise and shape information or re-invent knowledge (Dougherty, 1997). Knowledge is constructed by people and grows through experience (Zahorik, 1995). Learning is a process of construction from within the individual rather than one of internalisation or absorption from the environment (Kamii, 1982).

Key assumptions guiding constructivist teaching include a notion that students naturally construct knowledge by putting things into relationships and that their knowledge is constructed as an interrelated whole and not compartmentalised into subject matters. Importantly, knowledge is viewed to advance within the constraints of developmental levels. The constructivist model aims for personal autonomy in which students are governed by themselves and have the ability to think logically

(Kamii, 1982). Elements of constructivist teaching practice include activating prior knowledge, acquiring knowledge, understanding knowledge, using knowledge and reflecting knowledge. As a consequence the four types of constructivist teaching that emerge from these elements are application, discovery, extension and invention (Zahorik, 1995).

Teaching and learning in a constructivist model is guided by a number of key principles underpinning instructional practices to facilitate student learning (Stein, 1994). Each student must construct meaning actively in order to understand the material being learned. Learning therefore may be seen to depend on the previous understanding that students bring to the learning situation. Importantly, what and how much is learned depends on the context in which the learning takes place and the shared understandings that student's negotiate with the teacher and each other. Constructivist teaching involves meeting students 'where they are' and helping them to move to higher levels of knowledge and understanding. In constructivist teaching, the teacher uses specific teaching methods to facilitate students' active construction of knowledge and most importantly, emphasises the process of how to learn. Constructivist teachers use continuous assessment to facilitate learning and model themselves as constructivist learners (Stein, 1994).

Constructivist learning practices enable problem solving (Ziegler & Wan, 2001) and thus require a qualitative change in teaching practice from didactic to self-directed student learning (Heflich, 1996). The author also acknowledged that the use of on-line technology is supportive of constructivist approaches as computer mediated communication encourages teachers to become more committed to individualised instruction and small group work, which are both elements of self-directed students (Heflich, 1996).

Middle schools should provide a general education in which the curriculum focuses on widely identified concerns of early adolescents and the larger world rather than

specialization among separate subjects. The curriculum must serve the adolescent students who are not be viewed as victims of their developmental stage. These concepts, along with the notion of curriculum integration, point to a form of middle school curricula that addresses the questions adolescents have about themselves and their world, and questions shared by adolescents and older people. The curriculum needs to be organized around themes rather than artificial subject areas (Beane, 1992). Meaning is created by students and not imposed by teachers, and knowledge and skills are removed from abstract subject categories. In this model, the curriculum integrates the affective and cognitive domains and the curriculum is integrated and whole, rather than divided into blocks of time devoted to subject areas (Beane, 1992). Educational reformers contend that students in secondary schools are rarely challenged to use their minds in any meaningful way. Faced with the remarkable absence of classroom thoughtfulness, these reform-minded educators have suggested that major organizational changes are necessary to heighten the emphasis on higher order thinking in schools (Ladwig & King, 1991). This requires a re-consideration of the structures, curriculum and pedagogy in these years so as to support meaningful engagement and student achievement.

Critically, constructivist teachers are learner-centred and viewed to employ a range of proven and effective teaching methods and practices. These teachers use more than the lecture method, approach teaching from the perspective of the learner, and re-think their role and the role of students in the learning process (Huba & Freed, 2000). The learner-centred teacher is committed to approaches that use constructivist teaching approaches requiring student reflection with the use of problem-based learning requiring participation in action research greatly in evidence (Lauer, 1999). Constructivist classrooms do not look and sound like average classrooms (Pelika, 2000). More noise and movement can be a sign that students are emotionally engaged in learning. Pelika (2000) believed that students must work in project-orientated groups with self-chosen topics, share with other groups, move around the room and use manipulative materials. The constructivist teacher models learner-centred

teaching practices and creates a positive climate for learning, creates opportunities for collaboration and supports the development of school-community partnerships (Lauer, 1999). Constructivists advocate classroom procedures that encourage students to identify the subjectivity and biases of existing interpretations and arrive at their own conclusions (Scheurman, 1998).

REFLECTIVE TEACHING

Reflective teaching requires teachers to think seriously about the origins and consequences of their pedagogy and about the situations and constraints embedded in the instructional, curricular, schooling and social contexts in which they work (Dougherty, 1997). Teachers need to learn more about themselves, their students, and the ways to support students so that they, in turn, learn more about themselves and each other (Close, 2000). Professional development models emphasise the importance of school based improvement and a focus on continuous improvement (DuFour, 1991; Wood, 1993). The middle years are characterised by students struggling with who they are and educators struggling with the day-to-day growth of their students and the need to provide an environment conducive to groups of students in transition (Close, 2000).

Highly reflective teachers show a greater sense of efficacy in their work, ownership within classrooms and schools, and continually seek to be innovative. In contrast, less reflective teachers emphasise classroom practice and control practices (Kruse, 1997). Reflective practice and action research on a school-wide basis improves staff development, evaluation, administrative practice and curriculum development (Teachers as Researchers, 1991). Reflection and inquiry contribute to both teacher and curriculum development (Ross, 1994).

Research (Snell & Swanson, 2000), has highlighted that teacher-leaders demonstrate the ability to work effectively with students and peers in their own classroom and beyond. These teachers emphasise the importance of subject matter, their commitment to working collaboratively, the role of reflection in their professional growth, and a sense of empowerment and enthusiasm for continual innovation in the classroom. Teacher leaders develop high levels of skills in expertise, collaboration, reflection and empowerment. The importance of professional development experiences in cultivating expertise in these areas is widely noted (Snell & Swanson, 2000).

Hochman (1997) acknowledged that successful middle schooling practice is not just about teaming, advising, interdisciplinary units, teacher-parent conferences and other middle schooling issues. Rather, it is about thinking about all these things concurrently. Effective middle schooling approaches require an holistic approach rather than an issue-by-issue orientation. The goal is the creation of a middle schooling culture of engagement, participation and learning. Middle schools should be built around the students (Hochman, 1997). Teacher effectiveness must be improved in order to help students achieve more (Flecknoe & Saeidi, 1999). This is particularly so in the middle years where claims of disengagement and low levels of achievement are apparent. The most effective way to raise academic achievement is for teachers to become inquiring professionals with action research and thinking skills. Literature on school effectiveness acknowledges inquiring school teachers and administrators as a key characteristic of effectiveness (Flecknoe & Saeidi, 1999).

Collaborative time for teachers to undertake and sustain school improvement may be more important than equipment, facilities, or even staff development (Raywid, 1993). Schools must provide time for collaboration and consider creative scheduling or instructional groupings that favour teacher collaboration (Raywid, 1993). Providing opportunities for teachers' talk about pedagogy and practice is a powerful impetus to reflect on one's own practice (Tertell, 1998). Teachers in the middle school require

opportunities for reflection and self-analysis (Moallem, 1997). Effective and reflective teachers recognise no singular or best way to teach in any given situation. They seek innovative solutions to unanticipated problems (Shedd, 1986).

MIDDLE SCHOOLING, SCHOOL EFFECTIVENESS AND IMPROVEMENT

The middle schooling framework outlined in Table 1 was used to organise the pertinent middle schooling literature. This framework can be modified to include the general findings of research into school effectiveness and improvement. Table 2 illustrates the linkage between the constructs of middle schooling and the elements of school effectiveness and improvement considered in Chapter Two.

Table 2.

A Framework for Middle Schooling and School Effectiveness and Improvement

Middle schooling constructs	School effectiveness & improvement constructs
Invitational Education Working from the language that expresses care and is reflected through modelling, dialogue, practice and confirmation	Learning Environment High Expectations Positive Reinforcement Pupil Rights and Responsibilities
Democracy Democratic schools make a commitment to conditions and processes that encourage mutual respect and continuous dialogue among all participants	Pupil Rights and Responsibilities Home-School Partnerships High Expectations Professional Leadership
Constructivist Teaching Based on a belief that learning is a social process in which teachers help learners to internalise and reshape their information or reinvent their knowledge	Concentration on Teaching and Learning Purposeful Teaching High Expectations Monitoring Progress
Reflective Teaching Serious thinking about the origins and consequences of the applied pedagogy and the situations and constraints embedded in the instructional, curricular, school and social contexts of the learning environment	A Learning Organisation Professional Leadership Shared Vision and Goals Monitoring Progress

The following sections discuss the connections between the four attributes of middle schooling and school effectiveness and improvement constructs.

INVITATIONAL EDUCATION, SCHOOL EFFECTIVENESS AND IMPROVEMENT

The middle school construct of invitational education is similar to the school effectiveness and improvement constructs of learning environment, high expectations, positive reinforcement and pupil rights and responsibilities. The creation of a learning environment that exhibits a positive attitude from staff and students, a collaborative work culture and characteristics of mutual help, joint planning, exchange of ideas and participative decision-making are descriptors of effective and improving middle schools (Licata, 1987; Smith & Scott, 1990). A cooperative, caring and committed staff that stresses an educational philosophy based upon appreciation of the importance of all students and promotion of self worth are features of the invitational approach to education. Such an orientation is compatible with an approach that works from the language of care and invites students to see themselves as valuable, able and responsible (Licata, 1987; Dougherty, 1997; Novak, 1981).

High expectations are a powerful tool for school improvement leading to effectiveness. Expectations govern behaviour and can enhance school effectiveness. (Stoll & Finck, 1996; McCroskey, 1998). Berry (1995) acknowledged that in the middle years, high expectations, high content of challenging matter and high levels of support from parents, teachers and community are essential for improvement. Teacher expectations do affect student achievement and attitudes to learning (Cotton, 1991). The research on effectiveness details the impact of high expectations on the creation of a school culture that views all students as able and capable and invites participation and engagement. An invitational approach is based on the understanding

that schools will continually demonstrate a belief in students and provides an environment where students will meet their academic goals and aspirations (Sizer & Sizer, 1999).

The effectiveness and improvement construct of positive reinforcement similarly emphasises the critical role that positive reinforcement plays in promoting and encouraging student achievement. Prompt and frequent feedback to students ensures progress and success (Doyle, 1987). A culture of positive reinforcement creates a warm and orderly learning environment that supports student success. Here both staff and students exhibit a positive attitude toward learning (Licata, 1987). Such a culture is inviting, it empowers students of all abilities, and it helps to create a culture of mutual respect (HMI, 1990).

Invitational approaches to education stress pupil rights and responsibilities. Educators' decisions affect the lives of students and it is important that input is sought from students about their school life (Newman, 1992). Classroom pedagogy that focuses on empowering students and the creation of a culture of learning has a positive effect on students (Johnson & Johnson, 1999). If education for adolescent students is to be inviting, it must provide opportunities for student decision-making. Opportunities for student control, responsibility and empowerment link to effective and improving schools and the development of student self-esteem (Schmuck, 1979). Schools that view students as organisational members who participate in planning, problem solving, curriculum and assessment policies promote student responsibility, self-esteem and engagement (Schmuck, 1979).

DEMOCRACY, SCHOOL EFFECTIVENESS AND IMPROVEMENT

The middle school construct of democracy is consistent with the school effectiveness and improvement constructs of pupil rights and responsibilities, home-school

partnerships, high expectations and professional leadership. A democratic approach creates a learning environment in which conditions and processes encourage mutual respect and continuous dialogue among all participants (Dougherty, 1997). Development of an environment in the middle years that encourages students to value their learning experience requires schools to involve students in decision-making. This includes goal setting, planning and making decision that affect the school and their classroom (Newman, 1992). Students who participate in school and classroom planning, problem solving, and decision-making about school curriculum and evaluation have increased self-esteem and higher levels of engagement (Schmuck, 1979).

Democracy in the middle years of schooling acknowledges the role of all members of the school community in decision-making - including shared governance and parental consultation (Dixon, 1998). Successful home-school partnerships that result in greater parental involvement in the life of the school builds a proactive and supportive relationship which in turn contributes to more effective teaching and a positive school climate (Rockwell et.al. 1995; Epstein, 1992). School and parent partnerships in decision-making ensure the right of parents to have a voice in matters impact on their child's learning and promotes the role of parents in continuous school improvement (Cavaretta, 1998; Soliman, 1995). High expectations is an element of both invitational education and a democratic approach to schooling. The middle years are often characterised by low levels of engagement and low levels of student self-esteem. The research on effectiveness and improvement highlights the positive effect of high expectations from schools and parents in turning around student's poor attitude to learning and achievement (Gibbons, 1987; Berry, 1995; Cotton, 1991). A democratic approach and ethos encourages and supports mutual respect and dialogue between all members of the school community, including teachers, students and parents.

Professional leadership assumes that successful schools are schools of character built on the notion of bringing together people, that is, teachers, students, parents and the community, into a common cause (Sergiovanni, 1999). Successful schools are characterised by a purposeful and participative approach, and shared leadership (Duttweiler, 1988). Creating a community in which all its members are empowered to be involved and participate in broad decision-making is central to the democratic approach in the middle school and school effectiveness and improvement.

CONSTRUCTIVIST TEACHING, SCHOOL EFFECTIVENESS AND IMPROVEMENT

A constructivist teaching approach with its focus on meeting students where they are, helping them move to higher levels of knowledge and understanding, and emphasizing the process of how to learn through the application of specific techniques and methods has links to the effectiveness and improvement construct of concentration on teaching and learning (Stein, 1994).

Research literature on teaching and learning acknowledges that school and classroom improvement are the product of a focus on content, instructional strategies, classroom management and instructional skills (Fullan, Bennett, Rolheiser, 1990). Purposeful teaching and learning that organises and sequences the curriculum and allows opportunities to practice and refine skills development support achievement (Doyle, 1987). Importantly, effective teachers understand how to elicit student participation and proceed to use student's ideas as a basis for helping students construct new and reasoned understandings (McInerney & McInerney, 1998). Constructivist teaching acknowledges the concept of authentic pedagogy, active learning and the construction of knowledge and disciplined inquiry (Newman, 1995).

Constructivist teaching also acknowledges the power of high expectations to bring about change and improvement. Constructivist approaches seek the empowerment and engagement of students throughout the learning process. These approaches are learner-centred and expect students to be active and involved in their learning and the construction and application of knowledge. Students must be challenged to use their minds and enhance their skills and abilities in order to make meaning of the knowledge they acquire through higher order thinking and the understanding, application and reflection of knowledge (Ladwig & King, 1991; Zahorik, 1995).

Monitoring student progress and the classroom learning environment are key elements of the constructivist teaching approach. Learning is a social process in which teachers work with students to internalise and shape information and re-invent knowledge (Dougherty, 1997). The critical role of on-going monitoring and continuous assessment to facilitate learning is central to this process (Stein, 1994).

REFLECTIVE TEACHING, SCHOOL EFFECTIVENESS AND IMPROVEMENT

Reflective teaching is conceptually similar to the school effectiveness and improvement constructs of learning organisation, professional leadership, shared visioning processes and goals and monitoring progress. Reflective teaching engages teachers in a continuous process in which they think about their pedagogy (Dougherty, 1997). They continually seek innovation in the classroom and school that will increase engagement and achievement (Kruse, 1997).

The learning organisation is characterised by a culture of ‘teachers as learners’, teachers engaging in on-going reflection and working collaboratively with peers and students (Fullan, Bennett and Rolheiser, 1990). The learning organisation is a community of learners, both staff and students, driven by a model of continuous

learning and a commitment to staff development, reflective practices and action research.

Professional leadership supports and encourages growth opportunities for all members of the organization (Sergiovanni, 1984). In particular, transformational leaders focus on teamwork and collaboration and a commitment to school improvement through processes of reflection that seek solutions and a culture of improvement (Liontos, 1992; Cawelti, 1987).

The construct of shared vision and goals is a key ingredient of effective and improving schools. The leadership and teachers in these schools work in concert to create a shared and common vision and a commitment to quality innovations. This requires that staff engage in reflection about pedagogy and are concerned about the workings and operation of the school. This includes instructional approaches, curriculum and social contexts (Dougherty, 1997). Reflective teachers also have a more general concern for school-wide improvement and effectiveness.

The careful monitoring of student progress is a key element of school improvement. Effective schools frequently monitor school-wide student progress and require that all staff engage in active reflection of their approaches to the monitoring of student progress (Doyle, 1987). Teachers need to review and refine their monitoring approaches in a continuous manner so as to provide a learning environment that continually seeks to improve student outcomes (Fredericks & Piltch, 1988).

SUMMARY

In this chapter the literature on middle schooling and middle schools has been discussed according to the four philosophical approaches underpinning middle schooling. These approaches – identified as invitational education, democracy,

constructivist teaching, and reflective teaching - were related to the findings of school effectiveness and school improvement research. There are similarities between the core attributes of middle schooling and propositions about school effectiveness and improvement. Accordingly, the ensuing design of the empirical investigation will be based upon a school effectiveness and improvement model. In this respect, the model prepared by Sammons (1995) gains pre-eminence.

The following chapter describes the research methodology applied in the study and the methods of the empirical investigation.

CHAPTER FOUR

RESEARCH METHODOLOGY

OVERVIEW

In this chapter the research methodology of the thesis will be detailed. The chapter commences with a consideration of the research questions followed by an outline of the research approach. In subsequent sections, consideration will be given to reliability and validity mechanisms, the preliminary theoretical framework and the specifics of data collection (instrumentation, sampling, and data collection and analysis).

RESEARCH QUESTIONS

The key objective of the study was to examine the effects of school improvement initiatives resulting from the development of Yule Brook College. After 12 months of College operations did the learning environment and classroom cultures of teaching and learning change? Specifically:

1. Did students and parents perceive changes in the classroom culture and learning environment?; and
2. Can the presence or absence of perceptions of change in the learning environment and classroom culture be attributed to aspects of the school improvement initiative?

RESEARCH APPROACH

The study was a developmental, mixed-method investigation utilising quantitative and qualitative data collection procedures. These were based on a common paradigmatic framework outlined by the researchers Greene, Caracelli and Graham, (1989).

Greene, Caracelli and Graham (1989), developed a conceptual framework for mixed-method inquiries and proposed classification of these approaches as being either triangulation, complementarity, development, initiation or expansion. Their framework, based upon an empirical study of 57 mixed-method examinations of educational programmes, identified relevant design characteristics and suggested how these could be combined successfully in any single approach. The rationale for the combination of methods in this particular case study was to use the results of the quantitative method in the design of the qualitative investigation. It was intended that the qualitative data could then be used to validate the quantitative findings and provide a more comprehensive description of the phenomenon under investigation. This is a developmental approach. Greene, Caracelli and Graham (1989) highlighted the point that such an approach requires both methods be used in order to examine overlapping phenomena or different aspects of the same phenomenon. The methods have a similar paradigmatic framework, are given the same status, are interactive and are implemented sequentially.

In this study, quantitative questionnaires were administered to students and parents before implementation of the school improvement program. The questionnaires were also administered 12 months later in a post-treatment phase. These instruments are aimed primarily at profiling the classroom and school learning environments. The resulting quantitative data was then analysed statistically to compare the level of perceived presence of learning environment attributes pre and post-treatment.

Qualitative methods were subsequently applied. The qualitative surveys consisted of open-ended questions and were administered to students and their parents in order to provide information for a more thorough analysis of the learning environment.

In a complementary mixed-method investigation, it is important that a common paradigmatic framework is used to underpin both data collection methods. This enables triangulation of data on certain aspects of the phenomenon and a convergence in overall findings. All of the questionnaires used in this study and the surveys sought information on a similar set of constructs. The qualitative surveying was also designed to solicit additional information concerning the influences upon the prevailing classroom and school environments not obtainable through administration of the questionnaires.

RELIABILITY AND VALIDITY MECHANISMS

The question of validity and reliability and the extent to which conclusions drawn by the researcher are valid, applies to all educational research methodologies. Reliability refers to the consistency of the data obtained and is based on two assumptions: That the study can be replicated; and, that two or more of the interviewees provide similar responses by using the interview guide (Burns, 2000). Validity refers to the appropriateness, meaningfulness and usefulness of the inferences made from data collected and validation is the process of collecting data to support the inferences made by the researcher (Fraenkel and Wallen, 2000).

Reliability of the quantitative data was enabled through the use of factor analysis to organise data into internally reliable and discrete factors. When a number of variables are investigated in a single study it is desirable to group those variables that are moderately or highly correlated with one another into factors. Factor analysis allows the researcher to reduce the number of variables to a smaller set of factors - or

“clusters” - that summarise the information contained in the variables (Fraenkel and Wallen, 2000). In this study, factor analysis was applied to the student classroom survey to identify clusters of common factors in a large pool of items that measure elements of the classroom learning environment and culture. Factor analysis was used to investigate the survey data and to refine the instrument scales to include items that were moderately or highly correlated and measure a common construct. Internal reliability and consistency of the questionnaire scales was ascertained through Cronbach alpha analysis of reliability.

Ensuring reliability for the data in the qualitative survey was achieved through gradual refinement of the survey questions through testing and re-testing to ensure a consistency of responses and interpretations. Reliability was also achieved by allowing respondents to write their responses, careful coding of responses and the verbatim reporting of respondents’ perceptions to support inherent assertions and inferences exhibited by the researcher. Triangulation of data from both quantitative and qualitative methods provided increase reliability in this respect.

In the study, ‘validity’ primarily concerns the match between the phenomenon and how the results portray the phenomenon. That is, it questions whether data issuing from the instruments allow appropriate, meaningful and useful inferences to be made about the classroom learning environment and culture. Construct validity of the quantitative questionnaire instruments was assessed initially through factor analysis. This form of analysis provided information as to the nature of information the questionnaire was soliciting, and identified those items that were highly correlated into factors. These factors represent the constructs being profiled by the items for the sample under investigation and are reflected in the theoretical framework (Fraenkel and Wallen, 2000).

The validity of the qualitative survey instrument was achieved through cross-checking data or triangulation with the findings of the quantitative questionnaires.

Triangulation of the findings of each data collection method seek to support or validate the assertions and conclusions deriving from the study. Structuring the survey instrument so as to permit written comments by respondents, as well as seeking clarification of responses and perceptions, also enhanced validity.

THEORETICAL FRAMEWORK

The theoretical framework for the study was based upon the key characteristics of effective schools identified by Sammons (1995). Following a review of international research, the author identified a common core of characteristics likely to be found in those schools which are most effective in promoting progress, or whose performance is continually improving over time. They are: professional leadership; shared vision and goals; a learning environment; concentration on teaching and learning; purposeful teaching; high expectations; positive reinforcement; monitoring progress; pupil rights and responsibilities; home-school partnership; and a learning organization (see Table 3). Together, these determinants of school effectiveness provide a framework to assess the extent of school improvement. School improvement and enhanced effectiveness sits within the organization and practices of the learning community and its culture.

Table 3.
Theoretical Framework
(Sammons, 1995)

Characteristic	Elements
Professional leadership	<ul style="list-style-type: none"> • Firm and purposeful • A participative approach • The leading professional
Shared Vision and goals	<ul style="list-style-type: none"> • Unity of Purpose • Consistency of practice • Collegiality and collaboration
Learning environment	<ul style="list-style-type: none"> • An orderly atmosphere • An attractive working environment
Concentration on teaching and learning	<ul style="list-style-type: none"> • Maximisation of learning time • Academic emphasis • Focus on achievement
Purposeful teaching	<ul style="list-style-type: none"> • Efficient organization • Clarity of purpose • Structured lessons • Adaptive practice
High expectations	<ul style="list-style-type: none"> • High expectations all round • Communicating expectations • Providing intellectual challenge
Positive reinforcement	<ul style="list-style-type: none"> • Clear and fair discipline • Feedback
Monitoring progress	<ul style="list-style-type: none"> • Monitoring pupil performance • Evaluating school performance
Pupil rights and responsibilities	<ul style="list-style-type: none"> • Raising pupil self esteem • Positions of responsibility • Control of work
Home-school partnerships	<ul style="list-style-type: none"> • Parental involvement in their children's learning
A learning community	<ul style="list-style-type: none"> • School based staff development • Embedded reflective practice and action research for all staff

INSTRUMENTATION

As part of a Yule Brook College and Curtin University Faculty of Education Memorandum of Understanding the Classroom Cultural Elements Questionnaire (CCEQ) and Parental Involvement in Schooling Questionnaire (PISQ) instruments were used to collect data in November 1999. These tools were used to re-survey

students and parents perceptions following implementation of the school improvement reform program (see Appendices A and B).

Qualitative surveys of students and parents were also undertaken to ascertain perceptions of the college culture following application of the treatment (see Appendices C and D). The qualitative surveys targeted and solicited information on the influence of specific school improvement strategies on school culture and permit interrogation and exploration of the quantitative findings of the research instruments. This approach provided a way to confirm and validate the accuracy of findings to emerge from the quantitative correlational study and permits closer examination of the perceptions of students and parents (Fraenkel and Wallen, 2000). The surveys were comprised of a combination of closed and open-ended questions. Students completed the surveys in class. Parent surveys were issued by participating students and returned via reply paid envelope to the researcher. All surveys maintained respondent anonymity and were confidential.

Quantitative Questionnaires

The questionnaire administered to students was the Classroom Cultural Elements Questionnaire (CCEQ) (Cavanagh, Dellar, Ellett and Rugutt, 2000). This instrument was selected because of the consistency between the constructs underpinning its development and the theoretical framework of this study.

The basic CCEQ contains 151 items structured into 10 scales. Table 4 presents the number of items and sample items for each of the scales.

Table 4.
CCEQ Instrument Scales: Number of Items and Sample Items

Scale	Number of Items	Sample Item
Educational Values	19	Attending school will be useful for my future education or work
Emphasis on Learning	19	We believe that everyone can learn
Classroom Support	13	Students are willing to help each other when problems arise
Classroom Discussion	10	We listen to what others have to say
Shared Planning and Organisation	12	We are involved in deciding how our progress will be assessed
The Teacher	16	The teacher provides us with encouragement
Caring	12	We feel safe in this teachers class
Higher Expectations	13	The teacher expects us to perform to the best of our ability
Parental Involvement	15	My parent(s) help with my homework
Learning Outcomes	14	I perform to the best of my ability

The CCEQ utilises a four point 'Likert Scale' response facility for each item. The four categories indicate 1 for strongly agree, 2 for agree, 3 for disagree and 4 for strongly disagree. The nature and ordering of these four response categories constitute a continuous scale.

It was anticipated that the sample and resulting data-set from CCEQ administration would be of sufficient size to enable the data to be explored through exploratory factor analysis. Accordingly, it was planned to apply principal components factor analysis to data from 151 items to refine the instrument scales prior to data analysis. The refinement process was intended to produce instrument scales with sample-specific reliability and validity.

The Parent Involvement in Schooling Questionnaire (PISQ) (Cavanagh & Dellar, 2001) was also administered to parents. This instrument was selected because the constructs it profiles were consistent with school effectiveness and improvement research (Coleman, 1998), and also the theoretical framework for this study. Also,

instrument refinement had been conducted with a sample of parents from three local secondary schools including those from the college being investigated in this study. Anticipated sample size ruled out factor analysis of data specific to this college. Hence the previously refined version of the instrument was administered.

The basic PISQ contains 90 items structured into 10 scales. Table 5 presents the number of items and sample items for each of the ten scales.

Table 5.
PISQ Instrument Scales: Number of Items and Sample Items

Original Scale	Number of Items	Sample Item
My Child's Values about Schooling	19	My child would like to become a well educated person
My Child's Educational Progress	14	His/her test scores are high
Provision of Information from My Child	8	My child keeps me informed about school activities
The School	9	There appears to be a vision for the future of the school
Provision of Information from Teachers	12	Teachers give me useful ideas about how I can help my child learn at home
Commitment of Teachers to Working with Parents	10	Teachers seem interested in hearing my opinions about my child
Parent Confidence in Communicating with Teachers	4	I feel free to contact my child's teachers when I think he/she is having difficulty
Parental Values about Schooling	8	I set high expectations for my child's school achievement
Parent Confidence to Support Child's Learning	6	I am able to make a strong contribution to how well my child does in school
Total	90	

The PISQ utilises a four point 'Likert scale' response facility for each item. The four categories indicate 1 for strongly agree, 2 for agree, 3 for disagree and 4 for strongly disagree. The nature and ordering of these four response categories constitute a continuous 'scale'.

Qualitative Surveys

The qualitative survey instruments were designed to confirm, validate and explore findings to emerge from the qualitative correlational study. In effect, the surveys sought to triangulate quantitative findings. The surveys were also designed to solicit information on the influence of specific school improvement strategies. Each of the survey instruments was trialed, tested and modified as part of the development and refinement process. The draft survey questions were subsequently administered to a trial group of students and parents. Feedback was used to increase refinement of the survey instrument before a second trial was administered. This feedback was therefore used to refine and develop the final qualitative instrument questions.

The Classroom Survey consisted of 10 questions concerning the classroom, teachers and learning. Each question sought further information and feedback on each of the constructs identified in the quantitative investigation using the CCEQ instrument. The focus construct and specific questions are outlined in Table 6.

Table 6.
Classroom Survey Constructs and Questions

Construct	Questions
Educational Values	How important to you is getting a good education? How far do you want to go with your education?
Shared Planning and Organisation	Do teachers talk to you about areas of study you want to learn? How do they do this?
Classroom Support	Do teachers and students support and work with each other in your classrooms. How do they do this?
Assessment	Does your teacher involve you in marking and assessing your work? In what ways are you involved?
Student Centred Teaching	Tell me about the ways in which your teachers involve you and other students in classroom activities and learning.
Caring Teacher	Do your teachers show care for you and other students? How do they do this?
Learning Outcomes	How well you are going in your classes. Are you achieving to the best of your ability?
Teacher-Parent	How do teachers make contact with your parents? Why do teachers contact your parents?

High Expectations	What do your teachers expect from you and other students in the classrooms?
Parent-Teacher	How do your parents make contact with your classroom teacher and the college? What are the major reasons for your parents making contact with teachers?

The Parent Survey consisted of 10 questions related to the classroom, teachers, school and learning. Each question sought further information and feedback on each of the constructs surveyed by the PISQ instrument. The focus construct and specific questions are outlined in Table 7.

Table 7.
Parent Survey Elements and Questions

Construct	Questions
Parent to Student Expectations	How important is it for your child to do well at school? What level of education do you seek for your child?
Parental Confidence to Assist Student	How confident do you feel about your ability to support and assist your child in their learning?
Parental Confidence in Communication with Teachers	How confident do you feel about making contact with your child's teachers?
School Culture	Does the college appear to have a clear vision for the future and student learning?
Student Educational Values	What value does your child place on getting a good education?
Student Learning Outcomes	Do you believe that your child is achieving to the best of his/her ability?
Student Learning Preferences	Does your child feel comfortable at the school? Are students involved in planning classroom activities?
Student to Parent Assistance Requests	Does your child seek assistance from you with their school work? In what ways do you help them in their schooling?
Student to Parent Information	Does your child keep you informed about their learning and events at school? What types of things about school do they tell you?
Teacher to Parent Communication	Do teachers keep you informed about your child's learning and progress? For what reasons do teachers communicate with you?

THE SAMPLE

Quantitative Questionnaire Administration

All students in Years Eight to Ten in 1999 were surveyed using the CCEQ questionnaire instrument. The survey was administered to students in Mathematics and English classes. In 1999 this comprised a sample size of 389 students. In November 2000 the CCEQ was re-administered to 340 Year Eight to Ten students. In Year Eight and Ten the CCEQ was administered in Mathematics and English classes. The CCEQ was administered in these classes in order to identify and account for the different classroom pedagogies typically identified with humanities and quantitative teaching-learning orientations. The total sample comprised 729 students and provided an appropriate correlational study sample size for meaningful, statistically significant results to eventuate (Fraenkel and Wallen, 2000).

The PISQ was administered in each of the survey periods (1999 and 2000). In 1999 the survey was posted to all parents of the school and 34 responses were received. There were 44 responses to the survey in 2000. The sample size of 77 exceeds the recommended minimum of 30 for a correlational study (Fraenkel and Wallen, 2000).

Qualitative Survey Administration

A random selection of students was surveyed using the qualitative survey instrument. Within each year group one class was selected randomly to participate in the surveying. Student participation was voluntary and confidentiality assured and maintained. Fifty (50) students completed the survey. This comprised 20 Year Eight students, 11 Year Nine students and 19 Year Ten students. This represented 18% of the student population.

Parents of the randomly selected student sample were invited to respond to the Parent Survey instrument. Fourteen (14) parents responded to the survey.

DATA PROCESSING AND ANALYSIS

Quantitative Data

Overall data from the CCEQ pre and post-restructuring administration were entered into a database - the Statistical Package for Social Science (SPSS). Data were then subject to exploratory factor analysis (principal components with oblique rotations) to explore the constructs or elements of the classroom and school culture being measured by the instrument. Refined instrument scale internal reliability was estimated by calculating Cronbach's Alpha for each scale. Construct validity was assessed by calculating and examining inter-scale correlation (Spearman).

The CCEQ also solicited category variable data from respondents including classroom group, class subject area (Mathematics or English), gender and year level. One-way analysis of variance (ANOVA) was then conducted to examine possible differences in refined scale scores due to membership of these different 'groups' of respondents. ANOVA by period of administration was conducted to compare data in the periods before and after school restructuring.

As a consequence of the small PISQ sample size (78 responses), data from the pre and post-restructuring administration could not be explored by factor analysis. Consequently, the data from instrument administration was assumed to be reliable and valid. However, instrument scale internal reliability was estimated by calculating Cronbach's Alpha for each scale and construct validity was assessed by calculating and examining inter-scale correlation (Spearman). One-way analysis of variance (ANOVA) by period of administration was conducted to compare data from before and after school restructuring.

Qualitative Surveys

The presentation of the qualitative data was structured upon the common framework or constructs derived from the quantitative phase of the case study. These constructs provided a common paradigmatic framework for a consideration of results in both quantitative and qualitative phases of the study.

The findings from the qualitative surveys were analysed to identify common responses to each survey item. Responses from students and parents to the qualitative survey items were classified or coded into standardised or 'like' responses. Standardised responses were then aggregated to provide an overview of respondent's perceptions to each item. The results of this qualitative phase are presented in written form, comprising an explanation of the coded response and the occurrence of response.

Cross-methods Analysis

The data analysis and presentation utilised in the case study adopts a two levels of description approach (Pittman & Maxwell, 1992). This involves compiling information or findings from both the quantitative and qualitative phases of the study and is presented in the ensuing 'Quantitative Questionnaire Results' and 'Qualitative Survey Results' chapters.

The second level is conceptual in which the researcher combs or sifts through the body of data to identify common themes, patterns, topics or conceptual content that can be elicited from the data (Pittman & Maxwell, 1992). The analysis of empirical findings is presented in the 'Discussion of Results' chapter.

SUMMARY

This chapter described the methodological framework upon which the research was conducted. The chapter detailed the research approach, reliability and validity, theoretical framework, research questions, sample, instrumentation, data collection, and data processing and analysis.

The following chapter presents the school reform and improvement program that was based on middle schooling principles.

CHAPTER FIVE

THE REFORM PROGRAM

OVERVIEW

In this chapter, the middle schooling reform and improvement program undertaken by the college is explained. This program covered a broad range of structural, organisational, curriculum and pedagogical changes.

INTRODUCTION

Yule Brook College is situated in the south-eastern corridor of the Perth metropolitan area between Cannington and Armadale. Students are drawn from the suburbs of Maddington, Kenwick, Gosnells and Orange Grove and the college has a mix of nationalities and cultural groups. The ethnic composition of the college includes Asian, New Zealand, African, European and Aboriginal students. The school is in a low socio-economic area which is characterised low income, racial diversification, student alienation, and high rates of suspension and truancy. More than 50% of parents receive Secondary Assistance to support their children's education.

To support the transformation of Maddington S.H.S. into a middle school, the Minister for Education committed a \$1 million budget. This budget focussed on supporting a middle schooling focus; renovation and re-development to create dedicated learning communities; provision of a technology network across the college; enhancement of the college grounds; and creation of a new entry statement to the college.

Before the commencement of the reform program, a new Principal was appointed to lead the middle school development. As part of this re-development process the Principal initiated a comprehensive review of existing structures, curriculum and pedagogy. This was undertaken by a committee of all stakeholders in the form of two collaborative and representative groups. These groups, known as the Middle School Development Committee (MSDC) and the Implementation Committee undertook a review of all existing school structures, curriculum and pedagogy and established a theoretical basis and plan for the development of the middle school.

The development and implementation of the “middle schooling” approach at Yule Brook College was thus guided by the constructs of structures, curriculum and pedagogy. At the outset of the reform and improvement program a broad plan was established using these constructs under the “Middle School Development Committee Plan” (see Appendix 4). The newly appointed Principal in consultation with existing staff and parent stakeholders developed the program for reform. It is notable that less than half of the staff participating elected to apply for positions in the new college.

The Middle School Development Committee (MSDC) was made up of staff that had decided to seek a position at the new college and a number of staff who expressed a desire to apply for available positions. As a consequence the MSDC represented the views of traditional and reform minded educators interested in a middle schooling approach. Middle schooling implementation and the school improvement program undertaken at Yule Brook College was designed around a broad framework of vision, organisational structures, curriculum and pedagogy.

The basis of the middle schooling reform and improvement program is outlined in the remainder of this chapter.

Physical Restructuring

The reform program involved a major re-structure and re-development of the existing physical and organisational structures of the school to support a middle schooling and improvement focus. The initial focus of the reform program involved a major re-structure and re-development of the existing physical structures of the school. To support the transformation into a middle school the Minister for Education (Education Department of Western Australia) had committed a \$1 million budget to the program. The budgeting process was framed around:

- supporting a middle schooling focus;
- renovation and re-development of existing buildings to create dedicated learning communities;
- provision of a technology network for students and staff throughout the college; and
- enhancement of the college grounds.

The \$1 million re-development program was therefore used to re-configure the school to facilitate the effective delivery of a middle schooling approach. The former senior high school was built in the late 1970's and was suited for re-configuration into a collaborative and flexible community structure. Learning communities or a block of flexible and integrated learning areas for each year group were developed. These areas provided adolescent students and teaching staff with a stimulating and flexible learning environment. Learning areas were interconnected and had extensive access to computers and information and communication technology facilities.

Vision

The program began with an expression of a vision of the college's future state and a statement of the mission of the school leadership and teaching staff. Driving the new approach was the development of an agreed vision and a set of guiding principles to

inform the development and operation of the middle schooling approach. Together they provided the focus for the new college and have guided initial developments during the period under examination.

The basis of this vision was the product of a collaborative consultation process that involved staff, students and parents. This process enabled the school community to articulate the future state of the school. Under the direction of the newly appointed principal the school community gave expression to this future state through a statement of vision and the establishment of a set of guiding principles.

The Vision provided a clear target for the future and captures the ethos of “teamwork, innovation and challenge” that underpins the new college culture:

Yule Brook College is a progressive and innovative college providing a learning environment that encourages students to become productive and independent learners. A strong focus on technology and a new ethos of “teamwork, innovation and challenge” creates a community that enables students to reach their potential. Parents and community members are welcome and actively participate in the life of the college.

(Yule Brook College Plan 2000-2002)

The vision also established a link between the college and the wider community.

Driving the college vision was the intention to provide an educational and social environment that caters specifically for adolescent students and the establishment of a new and dynamic ethos throughout the community. In short the college sought to establish:

- a culture of teamwork in which students are encouraged to work collaboratively with their peers and staff work with colleagues across learning areas to maximise learning opportunities and outcomes;

- a learning community that fosters innovation by continually seeking improvement, the integration of “good practice” approaches, and supported by up-to-date learning technologies; and
- a learning environment in which each student is provided a challenging and stimulating educational program that encourages a rigorous and passionate approach to learning.

Vision realisation and mission attainment were recognised as being dependent upon a common set of beliefs and values about: learning; loyalty to the College; the unique needs and characteristics of the adolescent; and respect and empowerment of the individual through equality of opportunity, social justice and pastoral care. The drive for vision attainment required an extensive re-configuration of the existing school structures, curriculum and pedagogy. Importantly, the vision and ethos of the new college approach seeks to transform the learning culture of the school community. It set a path for school improvement and cultural change. Subsequent action has sought to strengthen a collaborative vision that gives all members the opportunity to shape and share the vision and establish a clear and focussed mission (Lezotte & Bancroft, 1985; Scales, 1996).

Guiding Principles

The “Guiding Principles” (Table 8) provided a framework or philosophical base for the development of the college middle schooling approach. Together with the vision, they provided a basis for decision-making and establish a clear set of beliefs, values and understandings underpinning the new college approach. In short they formed the foundations and signposts for the new and emerging culture of the college.

The Guiding Principles were used to direct and inform the development of the middle schooling approach during the initial implementation stage and during the period of investigation.

Table 8.

The Guiding Principles

The activities and operation of Yule Brook College are guided by a number of principles. These principles inform the operation of the college and decision-making processes. Yule Brook College is committed to:

- a belief that all students can learn;
- the creation of a learning environment in which staff, students and the community are passionate about learning and the college identity;
- a culture of personal best and excellence;
- catering for the unique needs and characteristics of the adolescent;
- the establishment of middle schooling practice and pedagogy;
- a student centred approach for developmental learning;
- a collaborative team approach to teaching and learning;
- respect and value of the individual based on values of equity and social justice;
- embedded pastoral care;
- providing our students with a safe and caring place for learning;
- the promotion of healthy, active life styles for students;
- staff as learners who engage in reflection of practice and activity in order to improve student learning; and
- staff as role models to our student community.

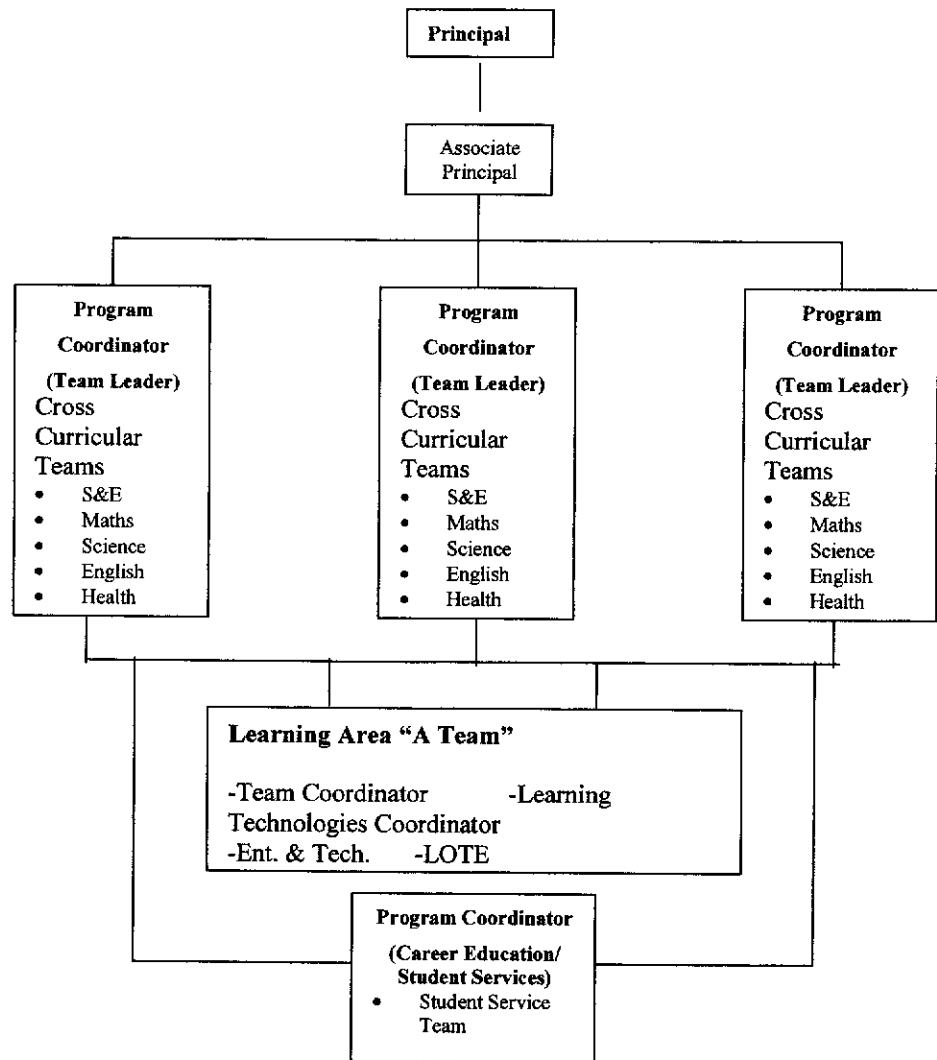
(Yule Brook College Plan 2000-2002)

Organisational Structuring

Organisational reforms were thus undertaken with a clear motive to support the middle schooling pedagogy. As acknowledged by Fullan (1993) organisational and curriculum restructuring does not lead to improvement unless they stimulate a change in school culture. Organisational restructuring provides the means to bring about effective reform but as a matter of principle should never serve to be viewed as an end in itself. The organisational structures provide the foundation upon which pedagogical and curriculum reform can proceed in the drive to improve outcomes for students.

The transformation to a middle school structure resulted in a new organisational structure for the college (Figure 1).

Figure 1.
The Leadership and Team Structure



(Boland, 2000 p.7)

The administrative profile was based on a team structure markedly different from its previous senior high school structure.

A Team Leader was appointed to each Learning Community to guide and manage the learning community, a team of cross-curricular staff and approximately 100 students.

Communities were structured as sub-schools with each community accepting responsibility for the whole student, that is, their social, emotional, academic and behavioural welfare. The team assumed responsibility for all pastoral care and parental contact and the team approach is founded on the establishment of sound relationships between teachers, students and parents.

Curriculum

The Education Department's "Curriculum Framework" guided curriculum programs and learning experiences. This outcomes-based approach to teaching and learning is consequently used by all teaching staff.

The college's curriculum was developed around a series of assumptions about the learning of children. The curriculum was to be characterised by: Integration of traditionally disparate subject disciplines to provide a holistic learning experience through teachers facilitating learning across a range of disciplines; catering for a diverse range of student needs, dispositions and learning styles; a collaborative approach toward student learning with teachers and students working in partnership; a social-constructivist view of learning by building upon what students already know, and developing programs that allow students to further their learning experiences; and exploitation of current and emergent information and communication technology to enhance the learning process and prepare students for future learning and life experiences.

The middle school curriculum employed cross-curricular and integrated approaches to curriculum development and delivery. Teams used a thematic and inquiry based curriculum in contrast to a subject discipline approach to curriculum organization. The team was responsible for learning outcomes in the English, Mathematics, Science, Society and Environment, Health and Career Education learning areas (see Figure 1).

Teams were guided by the core elements of the middle school pedagogy (Figure 4) and staff within the teams deliver curriculum programs across a number of learning areas increasing opportunities for integration and cross-curricular approaches. The new timetable and physical structures enabled each team to work collaboratively. The former feature also provides common planning and meeting times for educators.

The learning Area “A Team” provided breadth of learning opportunities and curriculum experience to students. This team delivered the educational program and learning experiences in the Enterprise and Technology, Arts, Health and Physical Education and LOTE learning areas. Curriculum and student learning sits at the heart of school improvement. The middle schooling curriculum at the college was driven by a desire to develop an engaging and integrated curriculum that is responsive to the needs of adolescent students and provides the background for successful lifelong learning.

Pedagogy

The issue of pedagogy was fundamental to the middle schooling reform process. Pedagogy underpins the middle schooling approach. The creation of a middle school structure was not the intended outcome of the reform program but a strategy to achieve improved student outcomes and overcome problems of poor levels of student engagement. The goal is the establishment of a “middle schooling” approach and pedagogy in contrast to the development of a “Middle School” structure.

The middle schooling transformation at Yule Brook College was based on a fundamental shift in pedagogy. The core elements of the pedagogy that underpinned the collaboratively developed middle schooling approach are detailed in Table 9. These elements guided and directed reform of the classroom learning environment and culture, and the curriculum approaches used throughout the college.

Table 9.
Core Elements of the Middle School Pedagogy

<ul style="list-style-type: none"> • Integration of curriculum Establishing links between learning areas to provide a holistic learning experience. • Cross-curricular learning environment Teachers become teachers of students as a facilitator, guide, mentor, across a range of learning areas. • Student centred learning Develop programs to cater for the diverse range of learning styles/ requirements/ individual needs of students. • Collaborative A collective approach toward student's learning. Teachers and students working in partnership. • Focus on relationships and pastoral care Quality relationships are developed and maintained as part of the learning experience. Effective relationships between students, teachers and parents underpins the college approach. • Student empowerment and participation. Negotiation / Opportunity A democratic ethos in which students participate and develop skills in curriculum negotiation, empowerment and participation through the provision of learning opportunities. • Learning community Establish an environment that is supportive of and nurtures sound relationships within the learning community. An environment that fosters and nurtures a college of learners. • Developmental learning Building upon what students already know, and developing programs that allow students to further their learning experiences. • Technology Using current and future technologies to enhance the learning process and prepare students for the future.

(Middle School Development Committee Final Proposals, 1999)

Implementation of the middle schooling pedagogy was viewed as critical to adolescent student engagement, improving learning outcomes for students and resultant school improvement.

Local Management and Merit Selection of Staff

The selection and professional development of staff were recognised to be of fundamental importance for the future of the college. A key component of the reform program was increased site-based management and the merit selection of all staff to the college. In line with Education Department policy and initiatives to devolve – progressively and increasingly - decision-making to the local and school levels, the Principal and college community sought and gained increased authority for local management and the selection of all teaching staff. Prior to commencement of the new approach all teaching positions were declared vacant and were subsequently filled through local merit selection processes. New staff were employed on 3-5 years contracts subject to satisfactory performance management. For appointment, staff needed to demonstrate commitment and/or experience in middle schooling reform and an acceptance of the vision, guiding principles and pedagogy underpinning the middle school. All newly appointed staff undertook a comprehensive induction program and were supported by a college mentor program.

Reflective Practice and Action Research

The key guiding principle identifies “staff as learners who engage in reflection of practice and activity in order to improve student learning” supported by on-going reform, review and reflection. Underpinning the new approach was a culture of reflective practice and continual growth and improvement. The use of journals and formal reflection of practice at the leadership and team levels was undertaken across the college.

This principle and associated strategies were central to the reform program. They created a culture and expectation that staff are life-long learners and that the college should reflect continually on its practices and effectiveness in its drive to enhance learning outcomes for adolescent students Fullan, Bennett and Rolheiser (1990)

acknowledged the link between effective schools and a culture of “teacher as learner and researcher” supported by a drive for improvement in technical skills, instructional strategies and classroom management. As a consequence all teams were encouraged and supported to undertake a cycle of action research and reflection. From the outset therefore, a culture of action research and multiple solutions was encouraged in order to identify effective middle schooling practice.

Professional Development

Professional development was a critical component in the reform program. Extensive resourcing was provided to support staff team-building and collaboration. The College Priority Plans allocated resources to support professional development in a number of key areas central to the middle school pedagogy and curriculum. These included: developing middle schooling practices and pedagogy; implementation of the Curriculum Framework and an outcomes approach to assessment and reporting; the use and integration of learning technologies in the classroom; reflective practice; and action research.

The college has recognised the fundamental importance of on-going professional development in the implementation of the middle schooling approach and professional growth of the staff. The leadership team acknowledged that the successful implementation of a middle schooling approach would require on-going professional development of existing and new staff. As a consequence all staff engaged in a planned and developmental professional development program to explore middle schooling approaches and pedagogy. This involved the provision of professional development under the direction and guidance of acknowledged system and school ‘experts’. To support this knowledge, college staff were provided with planned opportunities to explore, refine and work collaboratively with their peers at the team level.

A middle schooling pedagogical approach required a significant cultural shift for staff, traditionally trained in a subject discipline and didactic approach to curriculum delivery. A middle schooling approach based on student centred, collaborative, integrated and cross-curricular approaches requires a major pedagogical shift. For many staff this posed a challenge to the foundations of their pedagogical practices. The successful implementation of the desired middle schooling approach required the establishment of a new middle schooling culture with appropriate values, beliefs, behaviours and rules that bind the college community (Donahoe, 1993).

Technology Focus

An emphasis on learning technologies and their integration across teaching and learning programs was a feature of the new college. The learning communities were designed and structured to integrate technologies into the day-to-day learning programs. The school intranet (Curriculum and Administration LAN's) played a major role in curriculum delivery and communications throughout the school. All students had access to computers and are provided the opportunity to develop a range of skills using relevant information and communication technologies. This included multi-media personal computing laboratories in each community and a school wide network with high speed Internet and Email capability. The college had a student to computer ratio of approximately 2.5:1.

The college also provided each staff member with a laptop computer. Staff could access the Curriculum and Administration LAN's from their offices and classrooms. Information and communication technologies (ICT) were viewed as a key tool in the reform and improvement program. ICT was viewed as a key strategy for student engagement in learning and the establishment of more challenging learning environments and contexts.

Links to the Local Community

The reform program included strategies to promote and enhance parent and wider community involvement. The primary objective was to strengthen the educational program for students and enhance parent and community involvement in the college. These strategies, together with other initiatives, sought to promote home-school and community partnerships which were viewed as a key element in educational research on school improvement. School practices supporting and promoting parent involvement in schooling have been identified as the basis for parent contribution to student achievement and commitment. As suggested in educational literature, home-school partnerships are a key correlate of effective schools (Coleman, 1998; Cheng, 1997).

The key strategy in this respect was the development of a marketing and public relations plan. This has realised an on-going program of initiatives to strengthen parent involvement in college life in relation to the day-to-day education of students. This included parents and volunteers coming into the college, peer literacy programs, open day events and a higher profile across the college and community through the production of a quality newsletter and prospectus.

Strengthening links with the home and the broader local community required re-culturing of the local community. In the case of Yule Brook College this necessitated overcoming existing barriers and existing reluctance or unwillingness to become involved in college life and the general day-to-day learning program of children. A major thrust of the new approach was to strengthen home-school and community links to support reform efforts to enhance student learning outcomes and promote school improvement.

Conclusion

The reform program impacted on the structures, curriculum and pedagogy of the college. This program focussed on a range of initiatives with the goal of strengthened college-community links and a re-casting of the college culture across the community. The reform and improvement program was designed to guide the development of the middle school approach and effect change in the classroom and school culture and learning environment.

SUMMARY

In this chapter the key elements of the school reform and improvement have been detailed. The impact of the reform program on school improvement and the capacity to effect change in the classroom culture and learning environment was the subject of the quantitative and qualitative phases of the study. The next chapter presents the results of the quantitative phase of the data collection.

CHAPTER SIX

QUANTITATIVE QUESTIONNAIRE RESULTS

INTRODUCTION

This chapter describes the analysis of data collected in the quantitative phase of the study. It commences with an examination of the student data derived from the administration of the CCEQ questionnaire, including the process of instrument development and refinement; examination of instrument validity and reliability; comparison of data from the two survey periods; and gender and cohort comparisons.

The chapter then presents the results of the parent (PISQ) questionnaire. This includes reference to data on reliability and validity and compares data from the two survey periods. The chapter concludes with a summary of the key findings of the quantitative phase of the study.

STUDENT RESULTS

Instrumentation and Administration

The original questionnaire administered to students was the Classroom Cultural Elements Questionnaire (CCEQ) containing 151 items divided into an initial 10 constructs with a four point Likert response scale for each item. Table 4 (see Chapter Four) presented the number of items and sample items for each of the ten scales.

The instrument was administered in December 1999 and November 2000 to a total of 729 students. In 1999 the survey was administered to 389 students and to 340 students in 2000. The survey was administered to all students in Years 8-10 present on the day of administration.

In years 8, 9 and 10 (1999 and 2000) the survey was administered in Mathematics and English classrooms. In year 9 (2000) the survey was administered in each homeroom class.

Instrument Refinement

Principal components factor analysis was used to explore the structure of the data. Oblique rotations were applied on the assumption that the constructs under investigation were interdependent. The resulting Structure Matrix contained 24 components. The loading of each item was examined and items were retained on a component if the minimum loading was 0.33. Items loading above 0.33 on more than one component were placed on the component with the highest loading provided the difference in the square loading values was at least 10%. The number of items in each component was examined. To ensure potential scale reliability only components with four or more items were retained. The remaining items in each component were then examined for construct consistency and those describing a common construct were retained. The components were then defined operationally.

Operational definition of the constructs was guided by a consideration of the original construct definitions of the CCEQ instrument. The items were subsequently identified in the factor analysis.

Table 10 presents the components, their operational definitions, number of respective items and their presence within the original scale.

Table 10.
CCEQ Factor Analysis Components, Operational Definitions, Number of Items and Original Scales

Component	Operational Definition	Number of Items	Original Scale
2	Educational Values	12	Educational Values
6	Shared Planning and Organisation	9	Shared Planning and Organisation
3	Classroom Support	12	Classroom Support
21	Assessment	5	Classroom Discussion/Shared Planning and Organisation
1	Student Centred Teaching	21	The Teacher
18	Caring Teacher	5	Caring
4	Learning Outcomes	11	Learning Outcomes
5	Teacher-Parent	4	Parent Involvement
8	High Expectations	10	High Expectations
10	Parent-Teacher	4	Parental Involvement

In the main, definitions were consistent with the CCEQ instrument however four new factors were revealed. These were:

- (i) Assessment;
- (ii) Student Centred Teaching;
- (iii) Teacher-Parent; and
- (iv) Parent-Teacher.

“Assessment” emerged from Classroom Discussion and Shared Planning and Organisation and reflected a specific focus on the assessment process within the classrooms. “Student Centred Teaching” defined more satisfactorily the orientation and pedagogy behind the individual items comprising “The Teacher” construct. The original “Teacher” construct did not capture the intent of the items which sought information on the pedagogy driving the teaching process of the classroom. The items have a clear focus on student centred teaching and learning processes. “Teacher-Parent” and “Parent-Teacher” reflect a division of the original “Parental Involvement” construct. The factor analysis revealed a clear distinction between teacher and parent initiated communications.

Instrument Reliability and Validity

Cronbach alpha analysis of reliability was used to examine internal reliability of the 10 scales (Table 11). Construct validity was assessed by calculating inter-scale correlation (Table 12).

Table 11.
CCEQ Internal Scale Reliability

Scale	Internal Scale Reliability (Cronbach Alpha)
Educational Values	0.89
Shared Planning and Organisation	0.87
Classroom Support	0.92
Assessment	0.75
Student Centred Teaching	0.97
Caring Teacher	0.84
Learning Outcomes	0.92
Teacher-Parent	0.78
High Expectations	0.93
Parent-Teacher	0.74

The Cronbach Alpha reliability values for each scale presented in Table 11 indicates that the items within each respective scale solicit similar responses from each respondent. Further, it indicates that the items within each scale measure perceptions of a common construct. The internal scale reliability results (Table 11) indicate reliability coefficients of between 0.74 and 0.97 for the 10 constructs. These exceed the requirement that, for research purposes, reliability should be at least 0.70 and preferable higher (Fraenkel and Wallen, 2000).

Table 12.
CCEQ Range Of Inter-Scale Correlation

Scale	Range of correlation coefficients (Spearman)*
Educational Values	0.21 - 0.50
Shared Planning and Organisation	0.15 - 0.52
Classroom Support	0.21 - 0.69
Assessment	0.10 - 0.53
Student Centred Teaching	0.19 - 0.72
Caring Teacher	0.24 - 0.72
Learning Outcomes	0.39 - 0.60
Teacher-Parent	0.16 - 0.54
High Expectations	0.10 - 0.55
Parent-Teacher	0.18 - 0.53

* Significance 0.000 for all correlations

The range of inter scale correlation coefficients presented in Table 12 suggest that the elements of classroom environment being measured are inter-related to varying degrees.

A Comparison of CCEQ Data from the Two Survey Periods

The two administrations of the CCEQ were a pre and post-test survey of classroom culture. The pre-test was administered in the former Maddington Senior High School (1999) and the post-test was administered to students of the new Yule Brook College following the transformation into a middle school (2000). The 2000 survey represents student's perceptions of the classroom and school one year into the application of the school restructuring program. The treatment was an organisational, pedagogical and cultural transformation of the college from a senior high school to a middle school based on a middle schooling approach.

An initial analysis of data from the two survey periods was conducted to produce a comparison of the mean, standard deviation and Likert Scale mean response for each construct. To assist in interpretation of scale mean scores, each was divided by the

respective number of items in the scale to reduce the mean score to a score from 1-4 equivalent to the original four point Likert Scale. Table 13 details the results.

Table 13.
CCEQ Mean, Standard Deviation, Mean Likert Scale Response for 1999 and 2000

Construct:	Mean	Std. Deviation	Mean Response (Likert Scale)
Educational Values			
1999	40.8	5.3	3.4
2000	40.8	4.9	3.4
Total	40.8	5.1	3.4
Shared Planning and Organisation			
1999	22.4	5.4	2.5
2000	24.1	5.1	2.7
Total	23.2	5.4	2.6
Classroom Support			
1999	32.9	6.9	2.7
2000	35.4	5.7	3.0
Total	34.1	6.5	2.8
Assessment			
1999	13.1	2.9	2.6
2000	14.3	2.8	2.9
Total	13.6	2.9	2.7
Student Centred Teaching			
1999	60.6	14.8	2.9
2000	63.2	12.2	3.0
Total	61.9	13.7	3.0
Caring Teacher			
1999	11.8	3.6	2.4
2000	12.6	3.5	2.5
Total	12.2	3.6	2.4
Learning Outcomes			
1999	31.7	6.9	2.9
2000	32.0	6.2	2.9
Total	31.8	6.6	2.9
Teacher-Parent			
1999	10.5	2.8	2.6
2000	11.8	2.7	2.9
Total	11.1	2.8	2.8
High Expectations			
1999	31.8	5.8	3.2
2000	33.9	5.0	3.4
Total	32.8	5.5	3.3
Parent-Teacher			
1999	9.8	3.0	2.5
2000	10.5	3.5	2.6
Total	10.1	3.2	2.5

The findings of Table 13 reveal that for all constructs, except “Educational Values” and “Learning Outcomes”, the mean and Likert Scale mean was higher in 2000 following application of the treatment. One-way analysis of variance was then applied to determine whether or not the difference in mean scores was statistically significant ($\text{sig} < 0.01$). In addition, the η^2 statistic was calculated to provide an estimate of the strength of the effect of the independent variable (period of testing) on the ten dependent variables.

The F ratio and significance levels presented in Table 14 for data from each of the 10 scales indicates statistically significant differences for the classroom cultures between the two surveyed periods (1999 and 2000). The changes for the two survey periods were significant for eight of the 10 constructs with the exception of “Educational Values” and “Learning Outcomes”. However, the low values of η^2 suggest this difference in variation between the respective sets of data are only slightly attributable to the independent variable.

Table 14.
CCEQ One-way Anova, Eta, Eta² of 1999 and 2000 Data

Scale	F	Sig	Eta	Eta ²
Educational Values	0.001	0.972	0.001	0.000
Shared Planning and Organisation	7.843	0.005*	0.104	0.011
Classroom Support	26.344	0.000*	0.188	0.035
Assessment	30.555	0.000*	0.202	0.041
Student Centred Teaching	6.251	0.013*	0.096	0.009
Caring Teacher	8.835	0.003*	0.110	0.012
Learning Outcomes	0.459	0.498	0.026	0.001
Teacher-Parent	39.815	0.000*	0.231	0.053
High Expectations	27.866	0.000*	0.195	0.038
Parent-Teacher	6.997	0.008*	0.099	0.010

* statistically significant

In summary, for eight of the 10 constructs measured, the scale mean scores were statistically higher in the post-treatment data, but the difference is marginal.

PARENT RESULTS

Instrumentation and Administration

The original questionnaire administered to students was the Parent Involvement in Schooling Questionnaire (PISQ) containing 88 items divided into ten scales with a four point Likert response scale for each item. Table 5 (see Chapter 4) presents the number of items and sample items for each of the ten scales.

The instrument was administered to all parents of students over a two-year period. In 1999 (December) the survey was posted to all parents and 34 parents responded. In November 2000 the survey was posted to all parents and 44 parents responded.

Instrument Reliability and Validity

Cronbach alpha analysis of reliability was used to examine the internal reliability of the ten scales (Table 15). Construct validity was assessed by calculating inter scale correlations (Table 16).

Table 15.
PISQ Internal Scale Reliability

Refined Scale	Cronbach Alpha
Parent to Student Expectations	0.84
Parental Confidence to Assist Student	0.85
Parental Confidence in Communication with Teachers	0.94
School Culture	0.82
Student Educational Values	0.88
Student Learning Outcomes	0.92
Student Learning Preferences	0.84
Student to Parent Assistance Requests	0.86
Student to Parent Information	0.87
Teacher to Parent Communication	0.92

The Cronbach Alpha reliability values for each scale presented in Table 15 indicates the items within each respective scale solicit similar responses from each respondent and indicates that the items within each scale measure perceptions of a common construct. The internal scale reliability results indicate reliability coefficients of between 0.82 and 0.93 for the 10 constructs. This exceeds the requirement that, for research purposes, reliability should be at least 0.70 and preferable higher (Fraenkel and Wallen, 2000).

Table 16.
PISQ Range Of Inter-Scale Correlation

Scale	Range of correlation coefficients (Spearman)* (n =526)
Parent to Student Expectations	0.16 - 0.50
Parental Confidence to Assist Student	0.30 - 0.41
Parental Confidence in Communication with Teachers	0.29 - 0.54
School Culture	0.26 - 0.54
Student Educational Values	0.23 - 0.71
Student Learning Outcomes	0.30 - 0.80
Student Learning Preferences	0.34 - 0.80
Student to Parent Assistance Requests	0.27 - 0.79
Student to Parent Information	0.31 - 0.79
Teacher to Parent Communication	0.16 - 0.54

* Significance 0.000 for all correlations

The range of inter scale correlation coefficients presented in Table 16 suggest the elements of parental involvement being measured are inter-related to varying degrees.

A Comparison of the PISQ Data from the Two Survey Periods

The two survey periods represent a pre and post-test survey of parental perceptions of the school and classroom culture. The pre-test was administered in the former Maddington Senior High School (1999) and the post-test was administered to parents of the new Yule Brook College following the transformation into a middle school

(2000). The 2000 Survey represents parent's perceptions of the classroom and school one year into the application of the treatment.

An initial analysis of constructs between the two survey periods following application of the treatment was analysed to reveal the mean, standard deviation and Likert Scale mean response for each construct. Table 17 details the results.

Table 17.
PISQ Mean, Standard Deviation, Mean Likert Scale Response for 1999 and 2000

Construct	Mean	Std. Deviation	Mean Response (Likert Scale)
Parent to Student Expectations			
1999	13.6	2.2	3.4
2000	14.0	2.0	3.5
Parental Confidence to Assist Students			
1999	14.7	3.2	2.9
2000	13.7	3.2	2.7
Parental Confidence in Communication with Teachers			
1999	24.6	5.4	3.1
2000	26.9	4.9	3.4
School Culture			
1999	15.9	2.6	3.2
2000	16.5	2.6	3.3
Student Educational Values			
1999	20.7	2.8	3.5
2000	20.7	2.7	3.5
Student Learning Preferences			
1999	15.7	3.4	3.1
2000	15.2	3.2	3.0
Student Learning Outcomes			
1999	20.4	5.1	2.9
2000	20.4	4.6	2.9
Student to Parent Assistance Requests			
1999	12.0	2.5	3.0
2000	11.8	2.7	3.0
Student to Parent information			
1999	11.6	3.1	2.9
2000	11.4	3.3	2.9
Teacher to Parent Communications			
1999	22.9	7.3	2.3
2000	24.6	6.3	2.5

The results presented in Table 17 reveal that for five constructs (“Parent to Student Expectations”, “Parental Confidence in Communication with Teachers”, “School Culture”, “Student Educational Values” and “Teacher to Parent Communications”) the mean and Likert Scale mean was higher in 2000 following application of the treatment.

One-way analysis of variance was then applied to determine whether or not the difference in mean scores was statistically significant ($\text{sig} < 0.01$) (Table 18). In addition, the η^2 statistic was calculated to provide an estimate of the strength of the effect of the independent variable (period of testing) on the ten dependent variables.

Table 18.
PISQ One-Way Anova and η^2 of 1999 and 2000 Data

Refined Scale	Range	F ratio	Sig.	η^2
Parent to Student Expectations	3.4 - 3.5	0.453	0.770	0.004
Parental Confidence to Assist Student	2.7 - 3.0	2.456	0.045*	0.019
Parental Confidence in Communication with Teachers	2.9 - 3.4	5.161	0.000*	0.038
School Culture	2.9 - 3.3	5.357	0.000*	0.040
Student Educational Values	3.4 - 3.5	2.282	0.060	0.017
Student Learning Outcomes	2.8 - 3.0	2.311	0.057	0.018
Student Learning Preferences	3.0 - 3.1	2.177	0.071	0.017
Student to Parent Assistance Requests	2.8 - 3.0	1.691	0.151	0.013
Student to Parent Information	2.7 - 2.9	0.869	0.483	0.007
Teacher to Parent Communication	2.1 - 2.5	4.763	0.001*	0.036

* statistically significant

The F ratio and significance levels presented in Table 18 for data from each of the 10 scales indicate statistically significant differences for the classroom cultures between the two surveyed periods (1999 and 2000). The differences between the two survey periods were significant for four of the 10 constructs (“Parental Confidence to Assist Students”, “Parental Confidence in Communication with Teachers”, “School Culture” and “Teacher to Parent Communication”). For “Parental Confidence in Communication with Teachers”, “School Culture” and “Teacher to Parent Communication” the mean was statistically significant and higher. For “Parental

Confidence to Assist Students” the mean was significantly lower. However, the low values of η^2 suggest this difference in variation between the respective sets of data are only slightly attributable to the independent variable.

SUMMARY

In summary, the student quantitative results indicate that for eight of the 10 constructs the scale mean score was higher in the post-treatment questionnaire. One-way ANOVA analysis of variance indicates that these results were statistically significant for all constructs besides “Educational Values” and “Learning Outcomes”.

The results indicate that students perceived a significant change in a number of elements of the classroom and school learning environment and culture in 2000 compared to 1999. Students acknowledged a change in their involvement in classroom planning and organization and assessment. They also acknowledged increasing levels of classroom support, the use of more student-centred teaching approaches, increasing attributes of care from their teachers, higher expectations from teachers, and improved teacher-to-parent and parent-to-teacher communications. While the results reveal a small statistically significant improvement in many elements of the classroom and school learning environment and culture, the findings also reveal that there had been no measurable change to perceptions of the value of education and improved learning outcomes.

The parent quantitative results indicate that for four constructs the scale mean score was higher in the post-treatment questionnaire. Further, one-way ANOVA analysis of variance indicated that in four of the 10 constructs the results were significant. For “Parental Confidence in Communication with Teachers” “School Culture” and “Teacher to Parent Communication” the results were significantly higher.

The results of the parent quantitative study illustrate parental perceptions of their involvement with the college and their child's learning in 2000 and compared to 1999. The results suggest that parents were more confident in communicating with teachers, viewed the culture of the school as being more focussed upon student learning and perceived teachers as providing more information about classroom learning and school activities. Parental perceptions of their child's values about education, preferences for learning, attainment of educational outcomes and child to parent communication about their learning at school and how they as parent's could assist their child's learning did not change. These findings regarding parental involvement and improved educational outcomes are similar to that from the student data on their classroom learning environment. The school and teachers appear to have implemented successfully strategies to increase parental involvement. However at this early stage, there has been little impact on the values held toward education and student educational outcomes.

The following chapter will examine the results of the qualitative student and parent surveys.

CHAPTER SEVEN

QUALITATIVE SURVEY RESULTS

OVERVIEW

This chapter presents the results of the student and parent qualitative surveys. In the first section of the chapter, the results of the student qualitative surveys are detailed. This is followed by presentation of the results of the parent qualitative surveys.

STUDENT QUALITATIVE SURVEY RESULTS

Introduction

The student survey sought to gain an insight into student perceptions of the college culture and the impact of the reform program 18 months after commencement of the school improvement program. The survey solicited information on the influence of the specific school improvement strategies. It also enabled further investigation of the constructs identified in the quantitative phase of the study.

Instrument Development

The development of the qualitative survey instrument (see Appendix 3) was informed by the constructs profiled by the quantitative (CCEQ) survey instrument. The survey was structured according to empirically identified CCEQ constructs, with items pertinent to each construct being written to enable validation of the quantitative

results and exploration of emergent issues. The constructs were: Educational values; shared planning and organisation; classroom support; assessment; student centred teaching; caring teacher; learning outcomes; teacher-parent communications; high expectations and parent-teacher communications.

Questions were developed for each construct and to provide qualitative information on the constructs and changes that were examined in the quantitative phase of the study. Questions in the survey were drafted and trialled prior to the instruments' refinement and administration.

Sample

Following parental approval to participate, the survey was administered to one randomly selected class in each of Years 8 to 10. Each class represented a heterogenous mix of students in that year. Classroom teachers administered the instrument to students who were informed through an "Information Sheet" that the anonymity of all students was guaranteed and would be held in the strictest confidence. Students were also advised of the voluntary nature of the survey. They were informed of their right to withdraw freely and without prejudice and the fact that aggregated findings of the survey may be distributed across the college community.

The surveys were administered to each class within the space of two days. Fifty (50) students completed the survey comprising 20 Year 8 students, 11 Year 9 students and 19 Year 10 students. This represented 18% of the student population.

Results

The following section presents a summary of student written responses. It is organised according to the constructs surveyed in the qualitative phase of the study.

1. Educational Values

Question 1: How important to you is getting a good education?
How far do you want to go with your education?

Across all years students acknowledged the value of a good education stating that it was “very important”. Of those surveyed some 34 respondents (68%) made the explicit statement of importance. Only two respondents (4%) stated that a good education was “not important”. Many respondents related a good education to getting a “good job” and going to university and/or TAFE. Others also noted that a good education would help them in later life stating that “education is a big part of your life” and their preparedness to “do anything to get a good education”.

Almost all respondents acknowledged that they wanted to use their education to go to Year 12, TAFE, University or employment. Fifteen (15) respondents (30%) explicitly stated a desire to go to Year 12 and six respondents (12%) identified a desire to “go to Year 10”. Of further education and training destinations, 10 students (20%) indicated a desire to reach University and six students (12%) the goal of TAFE. Year 10 student responses were more aware of post-compulsory destinations.

Whilst students in general acknowledged the importance of education, the post-school intentions are significant with only 30% of respondents stating an explicit intention to study to year 12 and beyond. The results indicate a low perception as to the value of education and fall well below the current Western Australian year 12 retention rate of 69%. This perception will be analysed in more detail in Chapter Eight.

2. Shared Planning And Organisation

Question 2: Do teachers talk to you about areas of study you want to learn?
How do they do this?

Of the student's surveyed, 27 (54%) stated that teachers do talk to them about the instructional program they might want to learn. Student responses in the affirmative were higher in Years 8 and 10. Fifteen (15) students (30%) stated that teachers did not talk to them about areas of study they might want to learn.

Students indicated that teachers accomplish this by "going through worksheets", "conducting surveys", and "they talk about it" (work) individually and through class discussions. Some respondents indicated that teachers displayed different strategies stating they "talk about career opportunities and what sort of education you need", "they set up parents nights", "tell you stuff and encourage you", "point out things and they show me different ways I can head toward what I want to do".

The qualitative findings indicate clearly that the majority of students believed that teachers discussed the instructional program with students, and involved them in aspects of planning and organization.

3. Classroom Support

Question 3: Do teachers and students support and work with each other in your classrooms?

How do they do this?

Forty two (42) respondents (84%) stated that teachers and students support and work with each other in their classrooms. Three students (6%) indicated that teachers and students do not support and work with each other and another five indicated that this "sometimes" occurs. Responses were even across the year groups surveyed.

Respondents indicated a variety of ways in which teachers and students support and work with each other. Common responses included "class discussions" "helping and

listening to each other”, “working with partners and in groups” and teachers “talking students through their work”.

Respondents also acknowledged a range of approaches adopted by teachers. They commented on the “help and care” they provide, “working together by making an agreement on assessments”, “showing models and other examples of work” and “they help you out by suggesting ideas and getting involved at the student level.”

Respondents noted the level of cooperation between students and teachers, stating that “teachers sometimes need help and most of the students are willing to help” and “students help each other”. An indication of the perception of mutual support and assistance was the view that sometimes “we work with each other like a big family”.

Students perceived a classroom environment of support and cooperation. Student responses were emphatic in acknowledging the extent of classroom support and collaboration between teachers and students.

4. Assessment

Question 4: Does your teacher involve you in marking and assessing your work?
In what ways are you involved?

Respondents were affirmative with 34 students (68%) indicating their involvement in marking and assessing work. Eight students (16%) indicated they were not involved in marking and assessing. The remaining respondents indicated that this sometimes occurs.

In response to the ways in which they were involved in the assessment process students identified a range of strategies including “marking keys”, “marking work together”, and discussion with students on strengths and weakness. Student responses

indicated considerable involvement in marking of work but limited involvement in assessment of standards and levels. Responses indicated discussion of levels and standards and identified strategies for improvement including teachers demonstrating “what needs to be done to achieve higher levels” and highlighting “where I went wrong and how I can improve my work standard”.

In general, it can be stated that student responses indicate high levels of involvement in classroom marking of student work but limited involvement in the process of determining grades and levels.

5. Student Centred Learning

Question 5: Tell me about the ways in which your teachers involve you and other students in classroom learning activities and learning.

In the main, respondents acknowledged teachers “listening to everyone”, “helping, encouraging and talking with students” as key ways in which they are involved in classroom learning. Students noted that teachers “go around the class and make sure we understand”, “let everyone have a say or give explanations into classroom discussions”, and “they always ask you even if you don’t have your hand up”.

Students also noted the use of collaborative learning strategies where students were allocated tasks as part of project and group activities. Others noted that teachers “involved students in learning outside of school so students can see these areas from another perspective”, “organise activities to produce leadership skills, guest speakers and excursions”, “perform by writing speeches and read them to class” and “getting involved telling us of experiences”.

6. *Caring Teacher*

Question 6: Do teachers show care for you and other students?
How do they do this?

Thirty six (36) students (72%) indicated their teachers show care and concern. A further five students indicated that this occurred sometimes. Only two students (4%) stated an explicit, negative response.

Students highlighted a range of ways in which teachers show care and support acknowledging both in class and out of class support. Students noted that in the classroom teachers “keep an eye on us to see whether or not we are doing alright”, “they try to help us to hand in work so we can achieve high grades”, and “she nags me to do work and if she didn’t care she wouldn’t bother with me”. Other respondents noted “help with my problems” “by having an interest in our work, school life and the opportunities we have in the future” and “teacher give help and positive advice”.

Outside the classroom teachers “stop fights” and “help you with your problems”. Some responses indicated that teachers “keep an eye on us” and “don’t let anyone bully or get hurt”.

Teacher care might best be summarised by the student comments that, “if we do something we shouldn’t do they take time and effort to show concern by leading us in the right direction”, “they show care and try to think what is in the students best interest” and the claim by one respondent that “some (teachers) care too much”. Another student commented that teachers “go to extraordinary lengths to give us the most comfortable environment to learn”.

Students may thus be said to perceive a strong, caring attitude from their teachers.

7. *Learning Outcomes*

Question 7: How well are you going in your classes?

Are you achieving to the best of your ability?

Responses were generally consistent in responding to the question concerning how they are going in their classes. Typically these included the perception of “going well”, “doing my best”, “achieving a lot”, “doing OK”. At the opposite end of the scale, there were responses noting that they “could do better and will try to”, “in some things I am going OK”, and “I am not achieving my best in all classes because I sometimes find it boring and classes are a bit disruptive”. In the main, responses were positive. However individual respondents noted differences in achievement in different classes and some identified factors restricting their performance including boredom, distraction, lack of discipline in the classroom and poor attitude and self-motivation.

In response to the question concerning whether they were achieving to the best of their ability, 20 respondents (40%) indicated in the affirmative with a further five students (10%) indicating that they were doing well. Respondents identified that they were “doing well”, “going great”, “work to the best of their ability”, and “achieving to the best of their ability”. Eight students (16%) provided a categorical “no” to the question regarding achieving to the best of their ability.

Other respondents indicated that their achievement was variable and that they “sometimes” achieved to the best of their ability. Typical responses included “in some things I’m going well”, “I think I’m doing well”, “I could do better and will try to”, “I don’t know”, “I don’t think I’m achieving to the best of my ability”, and “definitely not...I know I could do better but I just don’t try hard enough”.

While many students indicated they were doing well in classes only half the students surveyed indicated that they were achieving to the best of their ability or near their potential.

8. Teacher-Parent Communications

Question 8: How do teachers make contact with your parents?

Why do teachers make contact with your parents?

Students acknowledged a range of ways in which teachers make contact with parents. Typical responses and their frequency included letters (16), phone (29), meeting and interviews (9) and email (3). Four students provided a nil response.

The reasons for teachers making contact with parents included poor performance, illness, concern and poor behaviour. Typical responses in this area included “not doing work or misbehaving”, “concerned with progress”, “not doing well”, “because children are working under standard”, “contact parent when I am sick” and “if you are being bad or misbehaving”.

Other respondents acknowledged positive contact with parents over high levels of performance and conduct. Responses in this category include “inform of success”, “let them know what they have achieved”, and “see how you are coping”. Some respondent acknowledged that teachers contact parents “because they care”.

Student responses acknowledged teacher-initiated contact with parents. There was a clear perception that teachers contact parents when concerned over standards of performance and behaviour. A small number of respondents noted contact to inform of success.

9. High Expectations

Question 9: What do your teachers expect from you and other students in the classroom?

Student's responses to this question covered a range of expectations including performance, achievement, values, conduct and interpersonal skills. Many respondents acknowledged the expectation of achievement to the best of one's ability with comments such as "the best you can do", "expect the best and show our potential", "they expect the best of your standard" "best of your ability", "work hard and achieve your goals" and "they expect to do as best we can 100% of the time".

The expectation of behaviour was acknowledged with comments such as "they expect the best of your behaviour". Interpersonal skills and values were identified by respondents who stated, "respect", "they expect impeccable manners", "that we respect each other", "a good attitude", "don't accept inappropriate language and fighting" and "expect dress standards, well mannered and follow instructions".

10. Parent-Teacher Communications

Question 10: How do you parents make contact with your classroom teacher and the college?

What are the major reasons for your parents making contact with teachers?

Students identified a range of ways in which parents make contact with teachers and the college. Typical responses and their frequency included letters (4), phone (24), meeting and interviews (9) and email (6). Five students provided a nil response.

The reasons for parents making contact with teachers and the college included performance, attendance, poor behaviour, illness and general concerns. Typical responses in this area included “see how I am going”, “make sure you are doing well”, “how their child is coping”, “bad behaviour”, “letting teachers know something” and “if you aren’t doing your homework or not getting homework or not going to school”.

Other respondents acknowledged parental response to teacher or school-initiated contact. In summary, students acknowledge a range of reasons for contact. These are perhaps best summarised by the comment “to see how their child is going or to complain about something that’s gone bad or just to compliment on something good that has happened at the college”.

Summary of Student Qualitative Survey Findings

The qualitative survey findings provided an insight into student perceptions on the classroom learning environment and college culture eighteen months after implementation of the reform program. The findings were consistent with the results of the quantitative phase of the study which validated evidence of change in a number of constructs profiled by the quantitative instrument.

Student responses acknowledged change in a number of dimensions of the classroom learning environment and school culture. The qualitative surveys indicated that students perceived higher levels of involvement in planning, organisation, classroom learning activities and assessment. Respondents also acknowledged a classroom learning environment characterised by support and cooperation and high levels of teacher care, concern and expectations of performance. Students also acknowledged higher levels of two-way communication between teachers and parents.

The findings also provided an insight into the evidence of little change in the dimensions of “Learning Outcomes” and “Educational Values” uncovered in the quantitative questionnaire findings.

PARENT QUALITATIVE SURVEY RESULTS

Introduction

In this section of the chapter the results of the parent qualitative survey are detailed. The survey sought to gain an insight into perception of the college culture and the impact of the reform program 18 months after commencement of the program. The survey solicited information on the influence of the specific school improvement strategies and so as to enable interrogation of the quantitative questionnaire results.

The results of the survey are considered for each of the PISQ refined instrument constructs. The results consider parent perceptions of each of the PISQ instrument constructs following analysis and of the quantitative results and seek to ascertain parent views of these constructs following initial implementation of the reform program.

Instrument Development

The development of the qualitative survey instrument (see Appendix 4) was informed by the constructs profiled by the quantitative (PISQ) survey instrument. The structure of the survey was according to the empirically identified PISQ constructs with items pertinent to each construct being written to enable validation of the quantitative results and exploration of emergent issues. The survey sought information from parents regarding the constructs of: Parent to student expectations; parental confidence to assist students; parental confidence in communication with teachers;

school culture; student educational values; students learning outcomes; student learning preferences; students to parent assistance requests; student to parent information and teacher to parent communications.

The questions developed for each construct sought to gain qualitative information on the construct and changes identified in the quantitative phase of the study. Questions in the survey were initially drafted and trialled before instrument refinement and administration.

Sample

The survey was sent to the parents of those students identified to participate in the student qualitative survey. They were requested to complete the survey and return to the college in the reply paid envelope. The survey sample enabled triangulation of student perceptions. Parents were issued an “Information Permission Sheet” which advised that the survey was voluntary and that individual anonymity was guaranteed. They were also informed that a similar survey was being undertaken with their children and permission was being sought for the participation of their child. They were asked to return the permission form attached to the letter.

Parents were also advised that survey findings may be used as part of future post-graduate research and that this research will assist the college in future planning and curriculum development. As part of the memorandum of Agreement between Yule Brook College and Curtin University, all information would be treated in the strictest of confidence and individuals could not be identified.

The surveys were sent to 60 parents and 14 completed surveys were returned.

Results

The following section presents a summary of parent written responses. It is organised according to the constructs surveyed in the qualitative phase of the study.

1. Parent To Student Expectations

Question 1: How important is it for your child to do well at school?
What level of education do you seek for your child?

All respondents indicated that it was important for their child to do well at school. Typical responses included “it is important to us that she does well at school. I hope that she completes Year 12 and goes on to further study”. Parent responses acknowledge a link between education and career prospects stating, “to do well is very important for future career opportunities”, and “doing well means all the difference to what sort of job she wishes to go into”.

Other parents spoke generally of the importance of education commenting “it is very important to see my child do well in study”, “as long as he is trying his best I will be happy with his progress”: and, “I believe in my child doing her utmost to achieve the highest possible education”. The following comment from one parent provides a succinct summary of the general expectation of parents towards education: “Yes it is important for my child to do well at school. As long as my child works to the best of their ability that is good enough”.

The level of education parents sought for their child ranged from Year 10 to various tertiary options. Of the 14 respondents, one parent sought Year 10, one Year 11 and six (43%) Year 12. Four parents identified University and TAFE as the desired goal, one an apprenticeship and two aspired for their child to “go as high as possible”.

In general the responses acknowledge the importance of education but appear to lack a strong commitment to 12 years of education and pursuit of further post-compulsory education and training options. This judgement concerning responses reinforces the view that the college community culture is not one that universally encourages twelve years of education as the cornerstone for student education. This view is supported by information that recognises poor retention rates to Year 12 and post-school destination data that indicates small numbers of students undertaking further education and training options.

2. Parental Confidence To Assist Students

Question 2: How confident do you feel about your ability to support and assist your child in their learning?

Parental responses to the question ranged from direct support of children in the process of learning to emotional and motivational support. Four respondents stated that they were 'very confident in most things'. Others claimed "reasonable confidence" and "we try our best". Another parent commented that "some subjects are a bit difficult" and another suggested "a workshop for parents with an overview" as a possible strategy to enlist parent support and confidence. The responses from parents indicate a general lack of confidence in assisting their child in the learning process. Only four respondents (28%) were strong in affirming their ability to support students. The remainder of parents acknowledge challenges in their ability to support their child's learning.

Of those parents that responded, all indicated a strong level of support and commitment to their child's education suggested by the comment "my child gets all the help and support that he needs and asks for". Some parents raised the issue of

their confidence and ability to provide support to students engaged in the learning process.

Parental responses to this construct, together with quantitative findings, highlight that parent confidence in assisting students in the learning process is a major issue. Linked to this lack of confidence is the general educational attainment levels of parents and the resultant aspirations they hold for the educational attainment levels of their children. The findings reinforce the educational literature on home-school partnerships and the correlation with educational attainment levels and improvement in student learning outcomes (Coleman, 1998; Epstein, 1992). These issues will be considered in greater depth in subsequent chapters.

3. Parental Confidence In Communications With Teachers

Question 3: How confident do you feel about making contact with your child's teachers?

All parents indicated confidence in making contact with their child's teachers. Many stated that they were "very confident" and only one parent stated that they find some teachers "unapproachable". Most respondents stated that they had "no problems with any of my child's teachers" and stated, "if necessary they would contact the school".

Parent responses suggested more "face to face meetings with the teachers rather than the phone" and another respondent raised the issue of "finding it hard to know the right time to call teachers...I am working full time and find communications difficult".

The qualitative survey findings affirm high levels of parent confidence in communication with teachers. These findings support the quantitative questionnaire

results and perceptions held by students in the similar “Parent-Teacher” communication construct.

4. School Culture

Question 4: Does the college appear to have a clear vision for the future and student learning?

Twelve (12) respondents (89%) confirmed that the college had a clear vision for the future and student learning. Only one respondent indicated in the negative and one was unsure.

Most respondents were positive with regard to their understanding of the vision and stated, “I am very pleased with the way the teachers are focussed on the students”, and “yes the college does have a clear vision for student learning”.

Other respondents added, “the students needs are the top of the list and the way students are constantly encouraged to do their best and rewarded along the way for little things is very good”. Another response questioned whether students understand the vision by asking “...but can the students see this?”.

Importantly, parents acknowledge the existence of a clear vision for the college and support a strengthening of the focus on students, student learning and the drive for higher levels of achievement.

5. Student Educational Values

Question 5: What value does your child place on getting a good education?

Eight respondents (57%) identified that their child placed a high value on getting a good education. A further two respondents stated “sometimes”, and “average. Three parents indicated that their child considered it “not important”.

Parents offered a range of other comments to support a belief that their child placed a high value on education. Some parents added “I want her to go on and accomplish what she can and hopefully (she) wants the same thing”, “both of my students are looking forward to attending university” and “he knows how important it is to get a good education”.

Some respondents acknowledged a number of reasons for their child not fully valuing a good education. These reasons included peer group, attitude and the teenage stage of development. These parents provided comments such as “probably little, school is a chore, is boring...”, “if my child had a better lot of friends I think my child would have a stronger value”, “my child has a typical teenage attitude towards education” and “doesn’t see the necessity”.

Parent responses to the survey question related to the “Student Educational Values” construct, illustrate changing student perceptions regarding the value of education is a complex issue. A significant number of parent respondents (43%) did not believe their child places a high value on getting a good education. The survey question also elicited responses from parents as to why their child does not value a quality education.

The values held toward education are complex and are influenced by the culture of peers and family, and a range of environmental, socio-economic and cultural factors. The parent findings highlight that changing the established culture of the community toward learning and the value placed on education will require a sustained and long term effort.

6. Student Learning Outcomes

Question 6: Do you believe that your child is achieving to the best of his/her ability?

Six respondents (43%) indicated that their child was achieving to the best of his/her ability. Two respondents indicated that their child was not achieving to their ability. Other respondents believed their child was achieving to ability “sometimes” or acknowledged differences in subjects adding “in most subjects yes, but can improve in others”.

Respondents offered a number of clarification comments ranging from “yes and every time” to “in some areas he could do better”. Other parents acknowledged the importance of support and motivation stating, “although she has been trying with a little bit of pushing she could do better”. Other comments acknowledged the role of the school, parents and teachers adding “I believe the college is on the right track and trying its best all things considered” and “achieving to the best of anyone’s ability depends on students, teachers and parents around them achieving their best”.

The comments of these respondents seem to demonstrate a belief that education is a partnership between teachers, students and parents and support the concept of parents as partners in the education process. These comments must be taken to indicate a belief that this partnership is a key to student’s success.

7. Student Learning Preferences

Question 7: Does your child feel comfortable at the school?
Are students involved in planning classroom activities?

Ten (10) parents (71%) indicated that their child felt comfortable at school. Only one parent indicated their child was not comfortable at school. One parent believed their

child felt comfortable “sometimes”. Parents added a number of clarification comments ranging from “she has a good students-teacher relationship”, she is very comfortable at the school, she has settled very well” to “my child is not happy and if I had my way I would move my child but she would rather stay until Year 10”.

A number of respondents acknowledge student involvement in classroom activities adding “yes”, “they have a lot of input into what goes on in class”. Other respondents stated that students were “sometimes involved in planning” or were “involved in planning”. Another respondent recounted, “from what Matthew tells of his school/classroom activities a large involvement in classroom activities are by students themselves”.

Some responses indicate a lack of parent’s knowledge of classroom activity and student involvement. Parents commented, “I have no idea whether students plan activities in class” and “I am not sure if they are involved”. The reason for poor knowledge was not offered in the responses to the question.

The survey findings illustrate that the majority of parents believe their child is comfortable at the college. Parents also acknowledge extensive student involvement in classroom planning, a key element of the middle school pedagogy.

8. Student To Parent Assistance Requests

Question 8: Does your child seek assistance from you with their school work?
In what ways do you help them in their schooling?

Nine parents (64%) indicated that their child sought help from them with their schoolwork. Three respondents (21%) indicated that this occurred “sometimes” and one stated a categorical “no”.

Parents offered a number of ways in which they help their children in their schooling. Some respondents indicated the importance of communication and support. Such responses stated, “listening to them” and “we generally try to offer suggestions, or point out a different way of looking at the question”.

Several respondents also emphasised the importance of study and work habits adding, “we find him a quiet place to do his homework, we listen to any problem” and “we always encourage regular homework habits”. Other respondents indicated the provision of support in day-to day activities acknowledging their involvement in “cutting out articles and drawing diagrams”. One respondent acknowledged the provision of assistance by “helping out in class once a month”.

9. Student To Parent Information

Question 9: Does your child keep you informed about their learning and events at school?

What types of things about school do they tell you?

Nine parents (64%) indicated that their child kept them informed about their learning and events at school. One parent indicated that this did not occur, another stated “sometimes” and a one stated “not really”.

Positive respondents stated, “she keeps me informed about everything that goes on at school” and “I usually get a run down of the highs and low each day”. Other respondents acknowledge the difficulties of gaining information or establishing lines of communication adding, “not as much as I would like”, “only the things that interest the” and “I have to extract every piece of information out of her”.

Parents also acknowledge that they were informed of matters both in and out of class. Some respondents stated “everything”, “classroom and sporting activities”, “the playground”, “problems” “making projects, sportsday, excursions” and including

“when they get into trouble”. Parents acknowledged communication on a range of classroom and out-of-classroom matters.

10. Teacher To Parent Communications

Question 10: Do teachers keep you informed about your child’s learning and progress?

For what reasons do teachers communicate with you?

Seven respondents (50%) indicated that teachers keep them informed about their child’s learning and progress. One respondent stated that this occurred “sometimes” and one stated a “little”.

Parents offered a number of reasons for teachers communicating with parents including academic performance, progress, concerns and issues. A number of parents acknowledge contact for positive performance stating, “to say how well she has done” and “about progress through letters of commendation”. Others acknowledged contact “to say they are good and bad”.

Some respondents emphasised contact for poor conduct or performance adding, “normally it is because he is misbehaving” and “when she is absent”. One respondent indicated they had “little communication with teachers...we only know he is doing well by what he says and the one parent teacher night we went to”. A contrary view was expressed by a parent who commented “that if there were any concerns” she would know because “her teacher would keep her up to date”. Parents acknowledged contact from teachers with regard to both positive and negative matters.

Summary of Parent Qualitative Survey Findings

The qualitative survey findings provided an insight into parent perceptions on the classroom learning environment and college culture 18 months after implementation of the reform program. The findings were consistent with the results of the quantitative phase of the study.

Respondents acknowledged that the college had a clear vision for learning and a confidence to communicate with teachers. The majority of parents indicated that teachers kept them informed of their child's progress and also indicated that their children sought their assistance and provided them with information about their learning and events that occur in the school. Parents perceived that their children felt comfortable at school and they were involved in classroom learning, planning and organisation.

Whilst many parents perceived school to be important, survey findings indicated that a number of respondents did not aspire to education to Year 12 and beyond. Further, many parents believe their children do not place a high value on their education and that levels of achievement were variable. The majority of respondents also indicated a lack of confidence in their ability to assist students in their learning.

SUMMARY

In this chapter the student and parent qualitative survey findings have been considered. The surveys sought to gain further information on the constructs and issues identified during the quantitative phase of the study and to enable exploration of the issues.

The following chapter discusses the results of the quantitative and qualitative data analysis in the context of the two research questions.

CHAPTER EIGHT

DISCUSSION

OVERVIEW

This chapter discusses the findings of the quantitative and qualitative phases of the study. Findings are conjointly analysed within the context of the specific research questions. Discussion of the findings will also be considered in light of the previous research and literature. The chapter is divided into two major sections that focus on the respective research questions. Within each of these major sections, data from students and parents are discussed separately.

RESEARCH QUESTION ONE

The research sought to determine whether students and parents perceived that changes in the classroom culture and learning environment have occurred.

Student Perspective

One-way ANOVA analysis of variance between 1999 and 2000 data from administration of the CCEQ to students revealed changes in the classroom culture. The quantitative survey of classroom culture (CCEQ) produced statistically significant higher scale mean scores for eight of the ten elements (Tables 13 and 14). These were “Shared Planning and Organisation”, “Classroom Support”, “Assessment”, “Student Centred Teaching”, “Caring Teacher”, Teacher-Parent

Communications”, “High Expectations” and “Parent-Teacher Communications”. The exceptions were “Educational Values” and “Learning Outcomes”.

Changes in Classroom Culture

Students indicated that they were more involved in classroom planning and organization and that this reflected a more collaborative planning process employed by teachers. Students perceived that teachers involved them in more discussion of aspects of subjects by conducting surveys to seek student input into the design and delivery of the learning program. This involved going through work sheets and talking individually and in class discussions.

One of the more significant aspects of the change was the strengthening of relationships between teachers and students. A key element of the reform program aimed to enhance teacher-students relationships through the implementation of organisational structures that would support a team and collaborative approach, reduce the number of teachers that students had to work with and build stronger relationships between teachers and students. The results indicated that students believed teachers exhibited more caring attributes and nurtured a supportive classroom environment where teachers and students worked to assist and support other members of the class.

Students indicated that teachers demonstrated care and support both within and outside of classes by “keeping an eye on us”, “help(ing) us with our problems” and “take time and effort to show concern by leading us in the right direction”. Students stated that teachers and students support and work with each other in classrooms. Students indicated that a collaborative and team environment was achieved through class discussions, helping and listening to each other and working with partners and in groups. Students also noted an environment of mutual help and care where teachers and students are willing to help and care for each other.

The findings also acknowledged that teachers worked with students to achieve a more student centred teaching approach to classroom learning. The results identified the use of student centred and collaborative teaching and learning strategies including project and group work, leadership skilling and leadership performance opportunities. These findings were evidenced by student's comments on assessment strategies. Here, students acknowledged involvement in marking and assessment of work through the use of making keys, peer assessment and feedback on "what needs to be done to achieve higher levels". These results provide evidence of the changes in pedagogy sought by the organisational and curriculum re-structure and as expressed in the vision and guiding principles of the college.

Another dimension of change identified was in the area of two-way communications between teachers and parents. The results identified a significant change and improvement in "Teacher-Parent" and "Parent-Teacher" communications. These results indicate that students believe that teachers contact parents more readily and conversely, parents more readily contact teachers about student performance and classroom and school matters. The qualitative findings confirm the readiness of parents and teachers to initiate contact with regard to positive and negative matters. Both parents and teachers were prepared to communicate over performance, general concerns and/or high levels of achievement and conduct.

The final dimension of improvement was the expectations teachers held for students. The findings reveal that students perceived that teachers had a high expectation of their performance and conduct. Students believe that teacher expected them to work to the best of their ability, work hard and achieve your goals and show their potential. Students also acknowledged that teachers held high expectations of "respect" and "attitude".

Elements of Classroom Culture that were not proven to have Changed

The implications of little change in the elements of “Educational Values” and “Learning Outcomes” needs to be considered in light of the change and improvement described in the preceding section. The findings revealed that most students acknowledge the importance of education and the gaining of a quality or “good” education. However, this value did not translate into high aspirations for a post-compulsory education. A significant number of students do not aspire to educational goals beyond year 12. One third of the students surveyed did not aspire to education beyond the year 10 level. It can be seen from these findings that raising the educational aspirations and values held by students toward education pose a major challenge and indicate that changing the educational values requires a deeper change to the college and community culture.

The findings also reveal that there was no change in perceptions of improved learning outcomes for students. Only half of the students indicated that they were achieving to their potential or that they were doing well. The remainder of the students indicated that they did not work to their ability or “could do better”.

When the findings for “Educational Values” and “Learning Outcomes” are considered together, it becomes apparent that changing the values held by students toward education and their personal commitment and achievement had not changed in the first 12 months. These elements require a re-culturing within both the school and broader community to acknowledge and act on the belief that education is central to the future of students. The research indicates that such changes require a longer-term perspective. The implications of these findings also need to be considered in the light of socio-economic and parental educational levels, which are not the subject of this research.

Parent Perspective

One-way ANOVA analysis of variance between 1999 and 2000 data from administration of the PISQ questionnaire to parents revealed positive changes in three dimensions of the classroom and school culture. These elements were “Parental Confidence in Communication with Teachers”, “School Culture”, and “Teacher to Parent Communications”. “Parental Confidence to Assist Students” decreased. These results indicate that for a number of elements of classroom and school culture, statistically significant changes had occurred in positive ways.

Changes in Classroom and School Culture

The parent survey confirmed the student findings that acknowledged two-way communications between parents and teachers. The PISQ findings revealed an improvement in “Parental Confidence in Communications with Teachers” and conversely “Teacher to Parent Communications”. Parents expressed greater confidence in contacting teachers and noted the approachability of teachers. These findings were confirmed by the qualitative survey with all parents expressing confidence in making contact with their child’s teachers. PiSQ data showed parents also acknowledged an improvement in “Teacher to Parent Communications” and the general belief that teachers make contact with parents when required. This was supported by the qualitative survey that revealed that teachers made contact with parents when required and also acknowledged that the basis of this contact was to discuss performance, raise concerns and recognise successes.

An important dimension of improvement was the parent’s belief that the “School Culture” had changed. This finding was further explained by the qualitative survey data, where parents acknowledged a vision for the college and a commitment to student learning. Parents believed that the new college had a clear focus on the students and supported and encouraged them to “do their best”.

The PISQ findings also revealed that for one element, the change was significantly lower. The data revealed that parents had become less confident to assist students in their learning. The qualitative results confirmed that many parents did not express confidence in their ability to directly assist their children in the learning program. However, they were strong in their commitment to support their children's education. This finding requires further consideration as to the possible causes of this change. These may include factors such as the educational levels of parents and the educational aspirations held for their children.

A goal of the reform program was a re-culturing of the college community to promote parent involvement and communications and establish a vision of student learning and higher expectations. The initial results confirm that parents perceive changes in these areas of the college culture. Parents also acknowledge improvement in home-school communications.

Elements of Classroom and School Culture that were not proven to have Changed

The parent data revealed that for a number of elements there was no significant change. The findings did not reveal change in the elements of "Parent to Student Expectations", "Student Educational Values", "Student Learning Outcomes", "Student Learning Preferences", "Student to Parent Assistance Requests" and "Student to Parent Information".

Similar to the students, parents did not acknowledge change in elements of student's educational values and learning outcomes. The qualitative results support the perception that a significant number of students did not place a high value on education and parents acknowledged potential reasons including peer group influence and poorer adolescent attitudes toward learning. Less than half of parent respondents

indicated a belief that their child was achieving to the best of his/her ability. Most parents acknowledged that their child had the potential to achieve at higher levels.

Another element that did not change was parent expectations of students. The qualitative surveys revealed that all parents believed that it was important for their children to do well at school. However, the level of educational expectations varied from employment to tertiary education. The lack of change may be attributed to the existing high expectations held by parents.

Student learning preferences did not reveal any change, although the qualitative results indicate that most respondents believed that their child felt comfortable at school and many parents acknowledged student involvement in the planning of classroom activities.

Student-to-parent assistance requests and student-to-parent information similarly did not reveal significant change. Parents did not detect change in student requests for assistance or any increase in information to parents from their child. The qualitative surveys indicated that over half of the parents believe that students sought their assistance and/or provided them with information. Many respondents acknowledged the lack of requests for assistance or the provision of information.

Summary

In conclusion the research findings indicate that students have acknowledged a change in the classroom culture and learning environment. Analysis revealed that for eight of the ten elements of the classroom learning environment, students identified a statistically significant change in the classroom culture and learning environment. These elements relate directly to classroom pedagogy and the underlying culture of the classroom, That is, “the values, beliefs, behaviours, rules, products, signs and symbols” of the classroom (Donahoe, 1993 p.302).

Parents acknowledged a change in four of the 10 elements. Parents affirmed a change in the School Culture indicating there appears to be a vision for the future of the school; school activities improve the quality of student's lives; the creative potential of students is realised; there is a belief that every child can learn; and improvement in student achievement is rewarded. Parents also confirmed a significant change in two-way communications between parents and teachers. These findings were confirmed by the qualitative survey.

The PISQ results showed that parents were unable to detect change in elements that seek to determine: parental confidence to assist students; student educational values; student learning preferences; student learning outcomes; student to parent assistance requests; and student to parent information. In some instances, the mean scores illustrated a decline.

RESEARCH QUESTION TWO

The research sought to determine whether the presence or absence of change in the classroom culture and learning environment can be attributed to the school improvement program.

The Intent of the Reform Program

As detailed in Chapter Four, the focus of the school improvement and reform program was to develop a middle schooling approach guided by the elements of structures, curriculum and pedagogy.

The focus on structures resulted in a major re-development of physical and organisational structures of the college. Changes were undertaken to create learning

communities consisting of 100 students and four staff; re-organise the leadership and management structure; implement a cross curricular team approach in contrast to the traditional faculty based organisational structure; and collaboratively develop and implement a vision and guiding principles for the school in accordance with the middle schooling directions and pedagogy.

The intended outcomes of the structural reform were fourfold. These were: to create a more collaborative and integrated culture and learning environment that would best support the implementation of a middle schooling approach for adolescent students; to enhance levels of student engagement and consequently improve learning outcomes for students; to create a new vision for the college based on the goals of innovation, teamwork, challenge, technology and parent and community participation; to establish middle schooling practice and pedagogy; and to create a learning environment based on collaboration, care, strength of relationships and student centred approaches to teaching and learning.

The curriculum reforms sought to establish an outcomes based approach to learning based on cross-curricular and integrated approaches to the organization and delivery of learning programs. The curriculum changes linked to the guiding principles and the core elements of the middle school pedagogy. In particular, the reforms were founded on a belief that all students can learn; a developmental learning approach; catering to the unique needs and characteristics of the adolescent; integration of the curriculum; creation of a cross curricular learning environment; and the establishment of a learning community.

The third focus of reform was pedagogy. Pedagogy lay at the heart of the reform and improvement program with structural and organisational changes being undertaken to facilitate curriculum and pedagogical reform. The ultimate goal was improved outcomes for students. The pedagogy driving the reform program was based on the middle schooling approach and sought the integration of curriculum to create a more

holistic learning experience; creation of a cross-curricular learning environment in which teachers work across a range of learning areas; a focus on students at the centre of learning and programs that cater to the unique needs and learning styles of students; collaborative teaching and learning; a focus on relationships and pastoral care; student empowerment and participation through negotiation and learning opportunities; development of a supportive learning community that nurtures a culture of teachers and students as learners; developmental learning; and the use of information and communication technologies to enhance learning and prepare students for the future.

Other areas of reform included the merit selection of all teaching staff, provision of extensive professional development to support middle schooling pedagogy and the application of information and communication technologies, and the implementation of reflective practice and action research as the professional growth and development model for teaching staff.

Association Between the Reform Program and Empirically Identified Change

The quantitative and qualitative survey tools provided data on student and parent perceptions of change in a number of areas linked to the intended goals and outcomes of the reform program. Table 19 details the linkages between changes and the reform program.

Table 19.
Linking Positive Changes in Student and Parent Perceptions to the Key Elements of the Reform Program

Student Elements	Parent Elements	Elements of the Reform Program
Shared Planning and Organisation	Student Learning Preferences	Vision Guiding Principles Pedagogy Physical re-structure Organisational Structures Curriculum Professional Development Technology Focus Reflective Practice/Action Research
Classroom Support	Parental Confidence to Assist Student	Pedagogy Organisational Structures Professional Development Technology Focus
Assessment	School Culture	Pedagogy Professional Development Curriculum
Student Centred Teaching	School Culture	Guiding Principles Pedagogy Merit Selection of Staff Curriculum Technology Focus Reflective Practice/Action Research Professional Development
Caring Teacher		Pedagogy Organisational Structures Merit Selection of Staff
Teacher-Parent Communication	Teacher to Parent Communication	Vision Guiding Principles Organisational Structures College Community Links
High Expectations	School Culture	Vision Guiding Principles Merit Selection of Staff
Parent-Teacher Communication	Parental Confidence in Communication with Teachers	Vision Organisational Structures College Community Links

Student Perspective

There was significant change and improvement in the elements of “Shared Planning”, “Classroom Support”, “Assessment”, “Student Centred Teaching” and “Caring Teacher”. These changes could be the result of developing dimensions of collaboration, student empowerment, a culture of learning and support, and effective relationships between teachers and students. The heart of the reform program was development of an adolescent middle schooling approach based on learning communities, relationships and collaborative planning intended to create pedagogical change.

The findings provide evidence of the impact on the learning environment of the guiding principles, desired pedagogy and the physical and organisational structures. Curriculum reforms and the provision of support through appropriate professional development, deployment and progressive integration of information, and communication technologies and the emerging culture of a learning community characterised by the “teacher as learner and researcher” have also likely impacted on the learning environment.

Significant change occurred in “Teacher-Parent Communications” and “Parent-Teacher Communications”, the important area of home-school partnerships. These changes reflect the reform intentions outlined in the vision, guiding principles and desired pedagogy which sought a strengthening of home-school partnerships and commitment to support student learning in a collaborative way. The organisational structures implemented under the reform program sought to facilitate and support the strengthening of these partnerships and school-community. The communication changes could be due to a focus on stronger community relationships and the establishment of parents and teachers as partners in education.

It can be argued that changes in expectations (High Expectations) can be attributed to the impact of reforms related to vision realisation and the progressive implementation of the guiding principles. Together these elements of the reform program sought a deliberate change in the culture of expectations across the college community and emphasised the importance of learning and the achievement of personal best. The improved expectations were also supported by the selection of teaching staff committed to and/or experienced in the middle schooling approach projected in the guiding principles.

The elements of “Educational Values” and “Learning Outcomes” did not change over the period of the survey. These elements are linked to a number of dimensions of the reform program including the vision, guiding principles and the structural and pedagogical framework for change. The lack of evidence of change suggests that these elements of the classroom culture and learning environment are deeply embedded in the existing school and community culture. Significant change will require sustained effort and focus on such aspects over a longer period of time.

The student data and findings illustrates that there was significant change in a number of elements of the classroom culture and learning environment. Further, it can be argued that these changes are linked to specific dimensions of the improvement and reform program.

Parent Perspective

The findings of the parent PISQ and qualitative survey instruments provide evidence of change with respect to two important aspects of the middle schooling improvement and reform program. These were two-way communications between teachers and parents and the culture of the school. In particular, the data collection instruments provide evidence of change in aspects of the school culture and learning environment that can be linked to the school improvement and reform program.

Parent data provided evidence of significant change in “Teacher to Parent Communications” and “Parent Confidence in Communication with Teachers”. These elements are critical features of a strengthening of home-school partnerships and triangulate the findings of the student data on similar communication elements. These findings reinforce the impact of reform initiatives outlined in the vision, guiding principles and desired pedagogy. They also support the assertion that the organisational structures implemented under the reform program have supported a strengthening of home-school partnerships and school-community links.

The findings acknowledged a significant change in the “School Culture”. The element of “School Culture” links to the improvement and reform focus areas of the school’s vision and guiding principles that sought a middle schooling culture of learning and teaching. The data also recognises that the desired organisational and structural changes were perceived to have initially impacted on the culture of the college.

The change in “Student Educational Values” and “Parent to Student Expectations”, whilst positive, was not shown to be statistically significant. The change, however, does acknowledge the positive impact of the reform focus in the areas of visioning, guiding principles, organisational structures and curriculum innovation. Further, the data demonstrates the initial impact of the improvement and reform program, though statistically insignificant, on nurturing the creation of a learning community that places a high value on education and promotes a culture of personal best for all students.

The parent data did not reveal changes in a number of elements of the classroom culture and learning environment (“Student Learning Preferences”, “Student Educational Values” and “Parent to Student Expectations”). Specifically, the parent data did not acknowledge change in elements of the day-to-day classroom teaching

and learning approach and the application of middle schooling classroom practices and pedagogy. These findings were contrary to student data that identified significant change in many elements of the classroom practice and pedagogy. The variation in findings between the parent and student data on elements of the classroom learning culture and pedagogy will subsequently require further investigation. The differences suggest that the parent instruments did not detect changes in classroom pedagogy or were not designed to do so.

The lack of change in “Student Educational Values” and “Parent to Student Expectations” illustrate that these elements are set deep in the existing culture of the school community. This culture derives from a mixture of socio-economic, environmental, family and peer factors and presents a significant barrier to the achievement of the goals of the school improvement program. To effect change with respect to these elements, a more sustained effort is likely to be required over longer periods of time.

Similar to the findings of the student data, the parent data did not acknowledge change in student learning outcomes. The data supports the assertion that these elements are deeply embedded in the existing school and community culture. This will also require a sustained focus over time in order to effect significant change.

The data failed to acknowledge change in student requests for parental assistance and student to parent information. The data also revealed a statistically significant and lower change in student requests for parental assistance. While these elements of the classroom and school culture were linked to the reform program areas of vision, guiding principles, curriculum, pedagogy and technology little change was detected in the first twelve months.

The parent data and findings illustrate that there were changes in a number elements of the school culture and home-school communications. The findings did not reveal

initial change in elements of the classroom culture and learning environment. In particular, this concerned evidence of the desired middle schooling pedagogical changes. The data also revealed little change in student outcomes, student to parent information and student requests for parental assistance.

Summary

The research has established that the changes identified by the research can be attributed to the reform and school improvement program. The research provides a link between the intent of the improvement program and the evidence of change detailed in the study. The study has demonstrated that over a relatively short period of time, changes have occurred in elements of the classroom and college learning environment and culture. The findings may thus be said to have provided a valuable insight into school restructuring and improvement within a middle schooling context.

CONCLUSION

The Yule Brook College reform and improvement program was directed at achieving pedagogical change through effecting initial change in a number of dimensions of the college. These are the physical conditions throughout the college; the structure of the school organization; the curriculum; classroom teaching; and student learning. The study has provided evidence of change in the first four dimensions or layers but not in the fifth dimension. As noted previously, the dimension of student learning is the product or outcome of the reform program and links also to the underlying culture of learning across the college community. This could be perceived as an issue concerning the 'depth' of reform with the objective of reform being too deeply embedded within the existing culture of the school to be susceptible to change in the short term.

The research has provided evidence of change however it is obvious that changing student outcomes and the teaching and learning process, the instructional core of the school, is difficult and will require on-going effort and attention.

In the final chapter the findings of the research will be summarized and the implications considered. In addition, recommendations for future research will be detailed.

CHAPTER NINE

SUMMARY AND IMPLICATIONS OF THE STUDY

INTRODUCTION

The purpose of this research has been to examine the outcomes of a process of restructuring, renewal and cultural change in a school undergoing transformation from a senior high school to a middle school. Specifically, the research sought to determine whether students and parents perceive that changes in the classroom culture and learning environment have occurred and whether the presence or absence of change can be attributed to the school improvement program.

The research approach was a developmental mixed method investigation, utilising quantitative and qualitative data collection procedures. This involved the use of quantitative pre-treatment surveying of students and parents, followed by post treatment quantitative and qualitative surveying of students and parents after 12 months of reform implementation.

It was anticipated that findings from the case study would inform and advise the development of the “middle schooling” reform and improvement program at the school and provide system-level advice for the on-going development of middle schooling approaches across the state.

SUMMARY

Change in the college and classroom culture and learning environment was evident after 12 months. Students and parents identified changes in a number of elements, especially pertaining to the classroom culture and learning environment. These included improvements in home-school communications, involvement in classroom planning and organization, relationships between teachers and students, elements of the school culture and evidence of pedagogical change.

Student data confirmed significant change in eight of 10 constructs of the classroom learning culture. Parent data also confirmed change to the school culture, classroom culture and the learning environment. This was acknowledged by significant change in four of 10 constructs. For three of the constructs the change was higher. The results indicated improvement in two-way communications between teachers and parents and a number of elements of the school culture.

Significantly, student and parent data revealed that there was no change in educational values and student learning outcomes. Parents also acknowledge a perceived decrease in their ability to assist students in the learning process. It has been argued in this case study that while the reform and improvement program has resulted in change to the classroom culture and learning environment, it is yet to impact on the deeper elements of educational values and improved learning outcomes. The implications of these issues were considered in detail in Chapter Eight. In general, parent respondents did not acknowledge the extent of change perceived by student respondents.

IMPLICATIONS

The implications of the research are significant. Changing the culture of a school is perceived as a difficult process and normally requires at least three years to bring about cultural change and sustainable school improvement (Fullan, Bennett & Rolheiser 1990). This research has shown that change can occur in shorter periods of time and in this case twelve to eighteen months. The study has shown that cultural change or change to the school and classroom learning environment can occur in shorter time frames, particularly in dimensions or constructs relating to communication, relationships, classroom planning and organization, and aspects of pedagogy. The research also revealed that other dimensions or constructs of the school and classroom learning environment are more difficult to change and require further time and effort. As a consequence, it can be stated changing the educational values and student learning outcomes, the goal of all improvement programs remains elusive in the shorter term.

The findings of the study reveal that students and parents acknowledge change in relation to a number of constructs concerning classroom culture. However, the research also suggests that achieving deeper pedagogical reform capable of changing educational values that will lead to improved student learning outcomes, will require a more substantial impact on the long held beliefs and culture of learning held by the school community. As suggested in Chapter Eight, the dimension of student learning is the focus of the reform program and links to the underlying culture of learning across the college community. Key findings of this study could therefore be perceived as an issue concerning the 'depth' of reform with the objective of reform being too deeply embedded within the existing culture of the school to be susceptible to change in the short term. The reform and improvement program may require further time to permeate the other layers and impact on the prevailing instructional practices previously held as 'sacred' to stakeholders (Cavanagh, Dellar & Boland, 2001).

For school leaders the research findings suggest that school improvement programs aimed at shifting the school and classroom culture and the learning environment can achieve positive results in a limited time frame. The research acknowledges that improvement programs can, in the short term or periods between 12 months and two years, have a significant impact on student perceptions and a limited impact on parent perceptions. These findings illustrate that early feedback on the progress of reform can be gained and used by school leaders to inform and refine on-going school improvement programs and initiatives. This feedback has the potential to advise and inform the progress of such programs and initiatives in both the medium term (two to five years) and long term (five to 10 years). The findings also provide encouragement for the efforts of school leaders undertaking school improvement and cultural change by confirming that positive results can be achieved within the shorter term.

The research findings also have implications for the implementation of change and innovation in lower secondary school settings. Positive change can be initiated and improvement achieved in a relatively short period of time. In contrast to the general body of educational literature and research on implementing cultural change in schools, the research reveals that elements of the school and classroom culture can change over a twelve to eighteen month period of time. Whether this change is sustainable is not the subject of this study. However, the application of the study methodology over the long term would provide information on the issue of sustainability. Reform programs aimed at changing the school and classroom culture and learning environment can achieve results in short periods of time and these results have the potential to advise and guide longer term school improvement programs.

Pedagogical change that underpins middle schooling reforms is also evident from the findings of the research. The research indicates that students and to a lesser extent parents have identified a change in a number of elements or constructs of classroom pedagogy. The research confirms that in the initial stages of the reform and

improvement program, a more collaborative and integrated culture and learning environment that supports a middle schooling approach for young adolescent students has developed. The findings of this research have implications for schools undertaking pedagogical change and provide information on the dimensions or constructs of the classroom pedagogy that can change in the short term and those dimensions that require greater attention over a longer time frame.

For educators and school leaders the results indicate that school improvement and reform based on middle schooling approaches can bring about change in the short term. The findings have significant implications for educators and leaders in Western Australia seeking to effect change through the increasing implementation of middle schooling approaches. The research has the capacity to inform further middle schooling developments and the research on the impact of these developments currently articulated in the Department of Education's Plan for Government School Education 2003-2006 (Government of Western Australia Department of Education, 2002). The plan explicitly seeks to undertake: Evidence based longitudinal research on the influence and impact of middle schooling approaches on the engagement and achievement of particular groups; a comprehensive evaluation to collect qualitative and quantitative data on the outcomes of middle schooling approaches; and a longitudinal study into classroom pedagogy.

The study highlights the utility of the research methods and instruments in profiling the prevailing school and classroom culture and learning environment. The CCEQ and PISQ quantitative questionnaire instruments have provided tools to identify areas of change and stability in the classroom and school culture and learning environment. For schools and school leaders undertaking school improvement programs the methodology and instrumentation provide the capacity to guide and inform strategic decision-making and undertake the longitudinal measurement of the outcomes of change and reform programs that seek to shift the school and classroom culture and learning environment.

From a system wide research perspective, the research methodology used in this study has the capacity to inform research into school improvement, school culture and middle schooling. The research methodology and instrumentation can be applied in a number of schools or groups of schools to provide aggregated information on school improvement programs and specific initiatives. This is especially evident with respect to middle schooling approaches and pedagogy and the classroom and school culture and learning environment.

RECOMMENDATIONS

The following recommendations for future research at the school and in the area of reform, school improvement and middle schooling are suggested as a consequence of the findings revealed by this study.

1. Surveying of the perceptions of teachers at the college should be undertaken to further triangulate the perceptions on school and classroom culture. This will also enable the collection of data on the extent to which desired pedagogical reform is successful and results in changes to the culture of teaching and learning held by teachers which lay at the heart of pedagogical reform and a middle schooling approach.
2. Longer term surveying of the school should be undertaken to determine whether evidence of cultural change to elements of educational values and student learning outcomes occurs. A longer term study will determine the extent to which the intended reform and improvement program impacts on deeper dimension of the school and classroom culture.
3. The research methodology should also be applied over a longer period of time to determine the sustainability of elements of change identified in this study. The focus of school improvement and reform initiatives is sustainable improvement in

student learning. The sustainability of change identified in this study can only be determined by longer-term application of the research methodology.

4. The research methodology used in this study may be applied to other schools undertaking school improvement and reform programs aimed at changing school and classroom culture and learning environments. In particular the application of the research methodology in other schools undertaking middle schooling reforms would determine the reliability and validity of the study and its findings. The application of the methodology in other schools provides an opportunity to gain a system wide picture on perceptions of the impact of middle schooling initiatives in schools and inform school improvement efforts at the local and system levels.
5. The research methodology should also be applied to primary schools undertaking school improvement initiatives, particularly in the area of middle schooling. The application of the methodology in these settings provides the potential to inform middle schooling initiatives for the breadth of young adolescent students and determine the reliability and validity of the research methodology and findings.

CONCLUSION

The research methodology has provided an insight into school improvement and reform initiatives focussed on middle schooling approaches in one school setting. The longer-term development of the methodology in this school setting provides an opportunity to measure the impact of change in all identified dimensions of the school and classroom culture and the learning environment. Further, the application of the methodology in other schools will support the reliability and validity of the research and provides the potential to inform school and system improvement initiatives and reform programs.

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APPENDIX A
CLASSROOM CULTURAL ELEMENTS QUESTIONNAIRE
(CCEQ)

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APPENDIX B
PARENTAL INVOLVEMENT IN SCHOOLING QUESTIONNAIRE
(PISQ)

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APPENDIX C
CLASSROOM QUALITATIVE SURVEY

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APPENDIX D
PARENT QUALITATIVE SURVEY

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APPENDIX E
INFORMATION TO PARENTS AND STUDENTS AND
CONSENT FORMS

**Curtin University of Education
Questionnaire and Survey
2001**

Dear Parents

As part of an agreement with Curtin University Faculty of Education the college has undertaken expensive surveying of the college community to gain feedback on the development of the Middle Schooling approach. The College Council and the District Director have approved the use of the Curtin University surveys.

Surveying has been conducted over the past two years and seeks regular feedback from parents, students and teachers on the development and progress of the new college approach.

Attached is a brief survey that I would like you to complete and return to the college sealed in the accompanying reply paid envelope. Please note that completion of the survey is voluntary and entirely at your discretion. The survey asks for your views, opinions and comments about a number of aspects of the college. Your views are confidential and the college will hold all information. Individual responses cannot be identified in any way.

At the same time surveying will be undertaken with students and staff to gain their perception and views of the developments at the college. All students' responses will be confidential and anonymous. Student participation is voluntary and they are free to withdraw from surveying at any time.

Could you please complete the attached parent authorisation to permit the participation of your child in the surveying?

Survey findings will be used as part of future post-graduate research. This will assist the college in future planning and curriculum development. As part of the memorandum of Agreement between the College and the University all information will be treated as strictly confidential and individuals cannot be identified.

I thank you sincerely for your cooperation and should you wish to discuss this matter further please do not hesitate to contact me.

Yours sincerely

Terry Boland
Principal

Parent Permission and Authorisation Form

Student Name: _____

I give permission for my son/daughter to participate in the questionnaire/surveying being conducted at Yule Brook College in association with the Faculty of Education at Curtin University. I understand that all information is confidential and reserves the anonymity of all participants.

I further understand that survey findings may be used as part of post-graduate research programs conducted under the guidance of Curtin Staff. The College Principal and College Council will approve all research.

Signature: _____

Date: _____

**Curtin University of Education
Questionnaire and Survey
2001**

Information for Students

Over the past two years the college has regularly surveyed the views and perception of students, parents and teachers about Yule Brook College. The information gained from these surveys and questionnaires is used to guide college planning and assist in the development of school learning programs.

The attached survey and/or questionnaire is designed to seek your opinions and views about the college and teaching and learning. They ask for your views, opinions and comments about a number of aspects of the college. Your views are confidential and the college will hold all information. Individual responses cannot be identified so please do not write your name on the survey/questionnaire.

Please note that completion of the survey/questionnaire is voluntary and entirely at your discretion. If you do not wish to complete the survey/questionnaire you are free to withdraw at any time.

The findings of the surveys and questionnaires will be distributed across the college community for parents, teachers and students. The findings may also form part of future university research. In all cases individual student's identity and responses cannot be identified.

I would like to thank you in advance for completing the survey/questionnaire as your comments are important to the on-going development of the college.

Should you wish to discuss any matter related to the surveys please see your teacher.

Terry Boland
Principal

22 June 2001