Organising Senior Learning through a hub-and-spoke model:  
The integration of vocational education and training 
across Queensland Secondary schools

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Doctor of Philosophy

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Centre for Educational Research  
College of Arts  
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Declaration

I declare that, except where due acknowledgement has been made, this research is my own work and has not been submitted in any form for another degree at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

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Guihua Cui 
6 July 2011
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<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>AGQTP</td>
<td>Australian Government Quality Teacher Programme</td>
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<td>ANTA</td>
<td>Australian National Training Authority</td>
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<tr>
<td>ANZAC</td>
<td>the Australian and New Zealand Army Corps</td>
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<td>AQTF</td>
<td>the Australian Quality Training Framework</td>
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<td>ARF</td>
<td>Australian Recognition Framework</td>
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<tr>
<td>ASP</td>
<td>Adopt-A-Student Program/Adopt-A-School Program</td>
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<td>ASTF</td>
<td>the Australian Student Traineeship Foundation</td>
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<td>BEAQ</td>
<td>Business Educators’ Association of Queensland</td>
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<td>BITS</td>
<td>Background Intelligent Transfer Service</td>
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<td>BMA</td>
<td>Billiton Mitsubishi Alliance</td>
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<td>BRAKE</td>
<td>Behaviour, Risk, Attitude, Knowledge and Education</td>
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<td>B-TADS</td>
<td>BAMA Training and Development Squad</td>
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<td>CAA</td>
<td>Career Advice Australia</td>
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<td>Computer-aided Design</td>
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<td>the Civilian Conservation Corps</td>
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<td>CCPO</td>
<td>Climate Change Projects Office</td>
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<td>CIV TAA</td>
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<td>DPs</td>
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<td>Education and Training Reforms for the Future</td>
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<td>Fly-In-Fly-Out</td>
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<td>Flexible Learning Services</td>
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<td>GAGAL</td>
<td>the Gladstone Area Group Apprentices Scheme</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<td>GEMS</td>
<td>Getting Employment Made Simple</td>
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<td>GFC</td>
<td>Global Financial Crisis</td>
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<td>GO</td>
<td>General Officer</td>
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<td>the Grades, Work and Dropout</td>
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<td>HATS</td>
<td>High Achieving and Talented Staff</td>
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<td>National Centre for Vocational Education Research</td>
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<td>NEET</td>
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<td>the National Longitudinal Survey of Youth 1997</td>
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<td>Not Studying Nor Working</td>
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<tr>
<td>OECD</td>
<td>the Organisation for Economic Cooperation and Development</td>
</tr>
<tr>
<td>OGS</td>
<td>Office of the Government Statistician</td>
</tr>
<tr>
<td>OP</td>
<td>Overall Position</td>
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<tr>
<td>PCYC</td>
<td>Police-Citizens Youth Welfare Association</td>
</tr>
<tr>
<td>PD</td>
<td>Professional Development</td>
</tr>
</tbody>
</table>
POEMs Partnership Outreach Education Model Pilots
POPIT Pinnacle of Partnerships in Training
PP Point-to-Point
QAMT Queensland Association of Mathematics Teachers
QCAR Queensland Curriculum, Assessment and Reporting
QCARF Queensland Curriculum, Assessment and Reporting Framework
QCE the Queensland Certificate of Education
QCS Queensland Core Skills
QMEA Queensland Minerals and Energy Academy
QRC Queensland Resources Council
QSA Queensland Studies Authority
QSE Queensland State Education
RIO Resources and Infrastructure Organisation
RIWP Research Infrastructure Working Party
RTOs Registered Training Organisations
SAIL Sudanese Australian Integrated Learning
SAS Statistical Analysis Software
SAT Scholastic Aptitude Test
SBA School-Based Apprenticeship
SBAT School-Based Apprenticeship and Traineeship
SBNAs School Based New Apprenticeships
SBT School-Based Traineeship
SBTA School-Based Traineeship and Apprenticeship
SCDE Schools, Colleges, and Departments of education
SES Social Economic Status
SETP Senior Education Training Plan
SIMTARS Safety in Mines Testing and Research Station
SIPs Structured Industry Placements
SMS Short Message Service
SOSE Studies of Society and Environment
SPEAR Social Policy Evaluation, Analysis and Research
SQIT Southern Queensland Institute of TAFE
STAQ Science Teachers Association of Queensland
STLD Support Teacher: Learning Difficulties
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>STWT</td>
<td>School-to-Work Transition</td>
</tr>
<tr>
<td>SWL</td>
<td>Structured Workplace Learning</td>
</tr>
<tr>
<td>TAA</td>
<td>Training and Assessment</td>
</tr>
<tr>
<td>TAFE</td>
<td>Training and Further Education</td>
</tr>
<tr>
<td>THRASS</td>
<td>Teaching Handwriting Reading and Spelling Skills</td>
</tr>
<tr>
<td>VET</td>
<td>Vocational Education and Training</td>
</tr>
<tr>
<td>VETiS</td>
<td>Vocational Education and Training in Schools</td>
</tr>
<tr>
<td>VET/iS</td>
<td>Vocational Education and Training or Vocational Education and Training in Schools</td>
</tr>
<tr>
<td>WBE</td>
<td>Work-based Experience</td>
</tr>
<tr>
<td>WGD</td>
<td>the Work, Grades and Dropout</td>
</tr>
<tr>
<td>WISE</td>
<td>Workplace, Industry and Schools Enterprise</td>
</tr>
<tr>
<td>YDS</td>
<td>Youth Development Study</td>
</tr>
<tr>
<td>ZIP</td>
<td>Zero Incidence Process</td>
</tr>
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</table>
Abstract

The exploratory case study reported in this thesis investigated organisational changes occurring in Senior Learning (Years 10-12) in Queensland through the introduction of vocational education and training in order to develop a better understanding of hub-and-spoke mode of organising inter-school links with industry. The main research question is: What does this exploratory case study reveal about the ‘hub-and-spoke’ mode of organising groups of Secondary School around particular by industries, specifically in terms of Government policies, school curricula, teacher professional learning, school communications and student outcomes? The contributory research questions concern the strategies Government policies use to drive organisational changes in Senior School through VETiS; what public representations of Queensland Minerals and Energy Academy (QMEA) schools’ curricula say about the offering of VETiS-related courses and/or activities; the initiatives and investment of the QMEA schools and their teachers’ involvement in professional learning; what is the variety of public communications QMEA schools engage in about VETiS and the QMEA; and what changes have occurred in students’ choices in their immediate post-school destinations from 2008 through 2009 to 2010. This thesis contributes important new knowledge about organisational changes with respect to planning a curriculum that is responsive to diverse needs of students, school timetabling, the venues for education and teacher professional learning, an area that is highly under-represented in the research literature. This makes this research significant and important.

Chapter Two develops the theoretical framework for the conceptual analysis of the data. First, it explores key concepts relating to the ‘hub-and-spoke model’ of organisational changes, albeit from outside education as there seems to be an absence
of literature relating to this issue in this field. Then the researcher chose concepts from the history of schooling and education (Hamilton, 1989), the relationship between education and production (Bernstein, 1977), and vocationalism (Kliebard, 1999) to set the framework for the ensuing analysis. Just how compatible these concepts would be was explored through the analysis of evidence and the formation of conclusions to this thesis.

There appears to be no research literature on the role of the ‘hub-and-spoke’ mode of organising senior secondary schools. Chapter Three reviewed current knowledge in the research literature relating to organisational change in Senior Secondary as a result of the introduction of VET in schools as a way to gain possible insights into what these developments for a ‘hub-and-spoke’ mode of organising Senior Secondary. Consequently, it provides an account of studied into organising knowledge in and through school curricula; teacher professional learning for organisational change; work-integrated education and production, re-organising schools, and the outcomes of these organisational changes in terms of student pathways.

Chapter Four explains the methodology and design of the exploratory case study research used for the project reported in this thesis to address the research questions. This Chapter describes each of the various pieces that were used to collect the data and produce evidence for this thesis. All this data was subjected to multiple levels of analysis. Chapters Five through to Nine are the evidentiary Chapters which present the range of data and evidence to satisfy the thesis.

Chapter Five provides an analysis of policies that are integral to this study. The analysis in this Chapter employs two different approaches in the First Cycle analysis, namely a dramaturgical coding method and the excerpt-commentary analysis. Then, it presents a Second Cycle theoretical analysis. The findings from using these analytical approaches were then used to inform other areas of data collection and interpretation of evidence.

Chapter Six analyses the curricula of the QMEA schools and reports on the organising of knowledge as core or extra curricula. Evidence is drawn from the
Annual Reports of these schools, which were analysed with respect to vocational and academic, core and extra curricula. This analysis helped to identify which QMEA schools were providing what courses with regard to the VET, as well as the VET in schools programs they were offering.

Chapter 7 turns the analytical attention to the teachers in the QMEA schools and their professional learning, including the schools’ investment and teachers’ involvement in professional learning. Again the researcher analyses the Annual Reports in this Chapter. The data and findings are immediately utilised within the theoretical framework and in particular Kliebard’s (1999) concept of vocationalism.

Chapter Eight presents the researcher’s analysis of yet another important aspect of this exploratory case study, the public communications by the QMEA schools about VETiS amongst. The data sources for analysis are the schools’ published Newsletters. The theoretical framework is brought to the analysis through the use of vocationalism and Bernstein’s (1977) notion of correspondence between learning and earning, or more broadly education and production.

The piece of the jigsaw which is gathered for analysis in Chapter Nine is evidence of the student outcomes. Here the relevant data comes from Queensland’s Next Step surveys. The data from three different years for different forms of VET and VET in schools outcomes are analysed for comparisons across the different QMEA schools. Here readers are reminded that these data would have been influenced in some ways by the global financial crisis. The theoretical framework is used here in the further consideration of the evidence presented in this Chapter.

Based on the analysis of the evidence, this thesis draws seven key findings in the final Chapter, which also recaps, emphasises and rounds off the main aspects of this study. First, the hub-and-spoke mode of Secondary School organisation is a potentially effective strategy for re-organising groups of schools to support work-integrated education and training so as to enhance successful and smooth post-school transitions for young adults. Second, although Governments’ policies say little about the motives, principles and strategies for such an innovative organisational mode, the lack of adequate funding is an important issue in driving organisational changes in
Senior Schools through VETiS. Third, although some QMEA schools provided their students with various VETiS courses, programs and activities in their school curricula producing varied results, going to university was not the dominant outcome. Fourth, most of schools’ initiatives for professional learning focused on academic learning or training. However, teachers’ involvement in teacher professional learning is not in direct proportion to the QMEA schools’ initiatives and investment in it. Fifth, although all the seven QMEA schools that were studied in-depth are engaged in providing information about VETiS and/or the QMEA for purposes of public communication, there exist differences in both variety and amount. Sixth, while several changes have occurred in students’ choices of immediate post-school destinations, no one was found to be decisive. Lastly, historical issues about vocational education continue to exist in the current debates concerning academic versus vocational schooling, reflecting the continuing relatively low social status of vocational education.
Acknowledgement

Doing a PhD study is one of the great challenges in my life and completing it is one of my best achievements so far. The pursuit of a PhD study is a long, difficult and ‘lonely’ journey but it is a greatly rewarding journey in many aspects. In this journey, I have been supported and encouraged by a host of people to whom I am eternally grateful. Without them, this thesis would not have been completed.

First, I give my sincere and hearty thanks to my principal supervisor, Professor Michael Singh, for his brilliant supervision, his patience and tolerance, his encouragement and all the valuable comments and suggestions he made about doing the research and writing this thesis during the past three years. Michael has given me not only full academic support, giving me detailed help with the theoretical framework and the use of the work of Hamilton, Bernstein, Kliebard and Weber, but also much wisdom about life. He has set me an excellent example as a supervisor (a researcher educator really) and researcher. He helped shape and reshape the argument and its structure in this thesis and the data collection, analysis, reduction and presentation, including the conceptualisation of the diagrams. He trained me in an extensive range of research techniques, including the data analysis procedures used in this thesis, that have enhanced my competence as a researcher, all of which will be very useful in my future research, supervision and teaching. His challenging questions, enlightening explanations, intellectual engagement, theoretical approaches and skilful guidance steered me onto a pathway where I have been able to turn my questions into a research study which led to a deeper understanding of the intimate relationship between writing, reasoned ways of thinking and research. I am also grateful to Professor Singh for the opportunities he offered me to attend many conferences, seminars, research workshops, writing retreat and training courses during which I gained not only knowledge about research and research methods but also the chance to network and socialise, as well as to improve my public presentation skills. I owe a special thank to Michael for his company when I was in a particularly difficult situation personally. Without his support, encouragement, conscientious dedication, this thesis would not have been completed.
My special and hearty thanks also go to my adjunct supervisor Associate Professor Bobby Harreveld for her financial support with the fieldwork. She made the arrangement for my itinerary, provided a fieldwork guide, booked the tickets and hotels, and personally accompanied me when I did the initial interviews as part of my research training. Bobby’s support, understanding, patience, kindness and generosity enabled me to successfully undertake the interviews. I thank Associate Professor Harreveld for setting me a good example in her attitude to life, her devotion to work, and especially research, and her perseverance in facing and dealing with many personal difficulties.

My appreciation goes to Associate Professor Wayne Sawyer for his help with the Ethics application after I finished the Confirmation of Candidature, and a chance to work as a research assistant with him which provided me an opportunity to read extensively.

My thanks must be extended to my husband for his spiritual support, his patience with my absence from his life and his encouragement when I thought about quitting my studies in Australia. His unfailing love encouraged me to go on and on with my studies. Without his support and encouragement, I might not have completed this thesis.

An International Postgraduate Research Scholarship from the University of Western Sydney helped towards my education as a full time international student. I am grateful for this Scholarship and for the services provided by this University in helping me undertake this study.

This study could not have been finished without the approval, support, co-operation and participation of those interviewees, schools and institutions where the interviews were conducted. I sincerely thank those institutions and their members of staff who gave so generously their time and participated so willingly in the interviews I conducted and so made this study possible.

Last but not least, I give my sincere thanks to my parents for their spiritual support and understanding of my absence from their life for three years. Without their love and support, many things would have been different.
AUTHOR’S PUBLICATIONS


CHAPTER ONE

ARTICULATION OF VOCATIONAL EDUCATION AND TRAINING IN SCHOOLS

1.0 Introduction

This research project takes as its focus organisational changes in Senior Learning (Year 10, 11, 12) via a ‘hub-and-spoke’ model, a key issue of national and international concern. Specifically, this study investigated organisational changes in Senior Learning in Queensland through a study of developments in Vocational Education and Training in Schools (VETiS), in order to gain a better understanding of the relationship between school-based and work-integrated education and training. For the purposes of this study I took ‘organisational change’ to mean the trend towards a ‘hub-and-spoke’ model evident in QMEA schools in their curricula programs, teacher professional learning, public communications by schools and student pathways.

The concept of ‘hub-and-spoke mode of school/industry organisation’, abbreviated as ‘hub-and-spoke organisational mode’ or ‘hub-and-spoke model’, has been studied through a historically informed theorisation of schooling (Hamilton, 1989), the relationship between education and production (Bernstein, 1977) and vocationalism (Kliebard, 1999). The review of the recent research literature documents gaps in current knowledge and associated debates in relation to organisational changes to Senior Learning. The research process being used in this project draws from the established practice of exploratory case study methods (Yin, 2003) for the purposes of data collection and analysis. Public documents compose the main source of data with interviews used as a supplement, mainly to provide the researcher with necessary contextual information. This research provides insights into what can be done to improve the ‘hub-and-spoke’ organisational mode through which young adults are receiving their education and training.

With regard to the presentation of the arguments for this thesis, much of it is structured inductively in accordance with the exploratory case study of the
emergence of the ‘hub-and-spoke mode of organisation’, thus needs to be read accordingly. Deductive and inductive arguments are “defined solely by reference to what arguers claim about the relation between the premises and the conclusions” (Wilbanks, 2010, p. 106). One may combine the view that “a deductive argument is one in which the speaker claims that the conclusion follows necessarily from the premises with the view that an inductive argument is one in which the conclusion in fact is rendered merely probable to some degree by them” (Wilbanks, 2010, p. 108). Thus, this thesis adopts mostly an inductive logic for the purposes of its strengths for the research presented in this thesis, and the researcher’s habits of presenting arguments for most Chapters.

Vocational education and training in schools (VETiS) has been part of the Australian school curriculum for some time. This is partly because the Senior Secondary Schooling system did not suit everyone, and partly because youth unemployment became a major issue. The Australian Education Council’s (Karmel, 2007b) review of young people’s participation in post-compulsory education and training in 1990 provided a key policy driver for VETiS.

According to National Centre for Vocational Education Research (NCVER, 2008), in 2005, there were 182 900 VETiS students, representing 37.4% of school students undertaking a Senior Secondary Certificate. While 170 000 were students enrolled in other VETiS programs (92.9%), only 13 000 were school-based apprentices or trainees (7.1%). The outcomes showed that in 2005,

54.1% of enrolments in VETiS subjects resulted in a pass, either through assessment or recognition of prior learning, while 36.0% resulted in a fail or withdrawal, and 9.8% were continuing enrolments. The number of qualifications (full course programs) completed was approximately 58 900 (NCVER, 2008, p. 2).

Given that only a little more than half of the students passed, these outcomes are not satisfactory or encouraging. In terms of apprentices and trainees the result is that commencements increased by 5%; completion increased by 2%; cancellation and withdrawals increased by 6% (NCVER, 2008). From these percentages it is clear that there are more cancellers than commencers. What happened to them? Why did they choose to withdraw? What can we do for them to keep them in these school-based
vocational training programs? What organisational changes need to be made to solve their problems? It is the latter question which I focused on when the research is reported in this thesis.

In this Chapter the key elements of this thesis are overviewed. It starts with an explanation of the main research question and contributory questions. Then it provides explanations of the theoretical concepts. This is followed by an account of the background to the thesis in terms of an overview of the research literature on the research questions. Next the research methods used in this study are presented, including data collection and analysis, and research ethics. This Chapter concludes with a statement of the thesis and an overview of how it is developed through the ensuing Chapters.

1.1 Research questions for this study

This thesis presents an exploratory case study (Yin, 2003) of the emerging ‘hub-and-spoke mode of school/industry organisation’, abbreviated as ‘hub-and-spoke model’ or ‘hub-and-spoke organisational mode’. The thesis is in effect an exploration of what is understood by this concept. The idea of a ‘hub-and-spoke’ mode of school/industry organisation built around a particular economic sector, has not been defined in the educational literature. This thesis pieces together various components of this concept over the course of the following Chapters. As explained further in Chapters Two and Three, this approach was used by Weber (1992) in his development of the concept of the ‘spirit of capitalism’.

Different kinds of research questions exist, and these different modes of questioning also mean that there are differences in what might constitute ‘an answer’ (as opposed to ‘the answer’). There is a difference in posing an open-ended research question and exploring the data accordingly for whether it provides any account of the ‘hub-and-spoke’ model, as opposed to a pre-emptive question. Given that the review of the research literature (see Chapter Three) shows that little research has actually been done into organisational changes in Senior Secondary, and specifically in terms of the development of ‘hub-and-spoke’ mode of organisation, this study is “restricted to broad, orienting questions. Such questions characterise many case studies, and
tackling them requires an exploratory approach” (Swanborn, 2010, p. 28). Thus, the main research question for this study was:

What does this exploratory case study reveal about the ‘hub-and-spoke’ mode of organising groups of Secondary School around particular by industries, specifically in terms of Government policies, school curricula, teacher professional learning, school communications and student outcomes?

The contributory research questions for this project were:

1. What strategies do Government policies use to drive organisational changes in Senior Schools through VETiS? (Chapter 5)

2. What do public representations of QMEA schools’ curricula say about the offering of VETiS-related courses and/or activities? (Chapter 6)

3. What are the initiatives and investment of the QMEA schools and their teachers’ involvement in professional learning? (Chapter 7)

4. What is the variety of public communications QMEA schools engage in about VETiS and the QMEA? (Chapter 8)

5. What changes have occurred in students’ choices in immediate post-school destinations from 2008 through 2009 to 2010? (Chapter 9)

Answers to the contributory research questions of this study guided the generation of the evidence necessary for answering the main research question. Specifically, this thesis analyses evidence of organisational changes designed to integrate learning and earning in Senior Secondary (Year 10, 11, 12) focusing on the Queensland Minerals and Energy Academy (QMEA). Thus, the key sources of evidence used to develop an empirically grounded understanding of the ‘hub-and-spoke’ mode of school/industry organisation are Government policies, school curricula, teacher professional learning, school public communications and students’ post-school destinations.
1.2 Policy significance of the study

This research has the significance in terms of Government policies for reforming Senior Phase of Learning and VETiS. Governments in this study refer to the Governments of different levels.

1.2.1 Queensland’s Education and Training Reforms

Queensland’s Education and Training Reforms embodied three significant and interrelated dimensions to reforming the Senior Phase of Learning. These reforms were presented by the Queensland Government as a means to engage disaffected young adults and those ‘at risk’ of ‘dropping out’ of the education and/or training system. At the macro-level, organising the reform to Senior Learning in Queensland involved important decisions about issues of transitions, participation, retention and pathways. Integral to the organisational change initiated by the Queensland Government were three reports which influenced its agenda for reforming Senior Learning, namely, *Queensland State Education* 2010 (Queensland Government, 2000), the *Pitman Report* (2002) and the *Gardner Report* (2002). For Queensland’s District Youth Achievement Planning Committees (DYAPS), a factor that contributes to resilience is a sense of hope-filled leadership. Harreveld (2007, p. 283) suggests developing “a values-infused, data-driven body of knowledge and conceptual tools for looking at problems and goals as patterned rather than isolated” was one way the DYAPs maintained resilience.

An investigation was made about Queensland’s reforms to Senior Learning (Years 10-12) for young adults. The notion of ‘brokering learning provisions’ was developed to explain the reforms to education and training which operate at multiple

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1 Holt (2007, p. 232) investigates the development and evaluation of an instrument that can be used to gauge readiness for organisational change at an individual level. In all, more than 900 organisational members participated in the different phases of study. The research results suggest that readiness for change is a multidimensional construct influenced by beliefs among employees.

2 Rather than denying hopelessness, Harreveld (2007) argues that starting from a pessimistic position may be liberating because it may provide a sense of many possible imaginings. Harreveld, (2007, p. 282) provides three suggestions for making a better future: “taking the experience of hopelessness seriously; taking the moral virtues of teaching seriously; and taking optimistic imagining seriously”.

levels and across multiple agencies (Harreveld and Singh, 2007). Education and training reforms can be studied for what they enable young adults to do and be in life, and that the success of these reforms can be judged according to the advantages they make possible to young adults. As far as Queensland’s Senior Learning agenda is concerned, it promised to offer some potential for removing obstacles in young adults’ lives so that they can engage in learning options that are meaningful and valuable to them. In terms of implementation, the Queensland’s Senior Learning reforms required organisational changes to legislation, governance, financial investment and the certification of learning (Harreveld & Singh, 2007). To support young adults’ education, training and work efforts, career and personal support programs have been organised throughout Queensland. A survey of Flexible Learning Services (FLS) found that “121 known providers of Queensland’s flexible learning services made educational and social provisions for 5796 young adults disengaged from schooling, or at risk of doing so” (Queensland Government cited in Harreveld & Singh, 2008, p. 8).

1.2.2 Governments’ goals and strategies to VET/iS

The education policies and the learning outcomes that Governments and schools support have a significant impact on social equity outcomes. An effective public education for the nation’s young adults is fundamental to democratic schooling.

The Federal Coalition (Howard) Government redistributed public funding for education from less wealthy public schools to the well-resourced private schools. As a consequence there was a reduction in the proportion of students enrolled in public

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3 Personal support programs include “a Youth Support Coordinators program; Access to Pathways funding grants; a Community Mentoring program; and Flexible Learning Services in a variety of environments” (Harreveld & Singh, 2008, p. 7). These programs are fundamental to the success of the State-industry engagement strategies. They are also vital to the generation and development of capabilities for young adults to make informed career choices.

4 In the current arrangement, the FLS do provide the opportunity for a fresh start with the potential for basic functionings such as literacy and numeracy being consolidated and then developed to a level commensurate with further learning at school/college or improved earning capacity (Harreveld & Singh, 2008, p. 11). This means young adults benefit from such organisational innovations. For those who have already been alienated or disaffected, FLS is “a second-chance, fresh start option akin to that offered to older people via TAFE colleges or adult community education programs” (Harreveld & Singh, 2008, p. 11).
rather than private secondary schools between 2000 and 2007. This caused a major conflict in Australian education policy. On the one hand the Howard Government said that more money was not the answer for improving public schools, and yet on the other, they increased public funding for elite private schools (Bardsley, 2007). Further that the Government abolished the Disadvantaged Schools Programme, which targeted 15 percent of Australia’s school population in those schools in which there were the highest concentrations of families in straitened financial circumstances. Elite private schools focus on academic studies to maintain the elite socio-economic status of their privileged students. There is a danger that Government policies which had an employment training focus and directed at public schools could further entrench divisions in academic achievement according to socio-economic background (Bardsley, 2007).

VETiS faces many problems. Funding is an important one. VETiS is expensive to mount and schools do not receive much extra funding to deliver it. Australian National Training Authority (ANTA), once the peak body of the VET system, provided $20 million per annum to States and Territories to support VETiS (Smith, 2004).\(^5\) However, the Howard Government subsidised elite private schools which increased their fees significantly and received considerably more Federal funding to enable them to do so. The Australian Bureau of Statistics (ABS) reports that “government funding of government schools increased by an average of 2% per year between 1999-2000 and 2003-04, while government funding of non-government schools increased by an average of 6% per year over the same period” (cited in Bardsley, 2007, p. 499). Another difficulty with VETiS is that “the increasing share of VET occupied by VET in schools may be both positive and negative” (Smith, 2004, p. 572). Students who undertake their off-the-job training at their schools were “less satisfied with their training than students who attended training and further education (TAFE) or other RTOs” (Smith, 2004, p. 573).

\(^5\) Funding for VETiS is steeped in the culture of neo-liberalism. Since 1994, funding for VET, whether located in schools, TAFE or private providers has undergone a systematic process of so-called marketisation that is marked by a model of ‘user choice’ and separation of purchaser and provider. Short term competitive tendering and business style accountability requires teachers to engage with VET in quite different ways to school funding. Such differences require school staff to recognise the tensions of negotiating different funding paradigms in the context of their community resources (Hill & Helme, 2005).
Labelling students as ‘at risk’ is questioned because it unavoidably involves “political, ethical, and moral judgements by some in relation to others” (te Riele’s, 2007, p. 55). The construction of the category of young adults ‘at risk’ was more in the interest of Government than that of young adults, as it was Government which used related information for policy-making and associated financial decisions. Changing aspects of school organisation was seen as the way to provide better education to suit young adults. Organisational support would come through a committed Government funding for the public school system (te Riele, 2007). Thus, some opportunity for marginalised young adults would seem to lie in organisational innovations in educational provision within and/or outside schools. Importantly, Australian education policy suggests that “youth at risk have specific problems and that the majority of young people are fine” (te Riele, 2007, p. 63). However, seeing a minority of ‘at risk youth’ is likely to misrepresent the lives of most young adults.

Ostensibly, the Government’s self-proclaimed purpose for the reform to Senior Learning was to engage disaffected young adults at risk of dropping out. This meant addressing some issues and difficulties in terms of transitions, pathways and funding. However, Governments have differing goals and strategies for VETiS. Government goals and strategies are an important part of the matrix for reforming the organisation of Senior Secondary schools. Another important part comes from the theoretical support. Thus, Hamilton’s (1989) theory of school reforms, Bernstein’s (1977) theory of the relationship between education and production and Kliebard’s (1999) concept of vocationalism provided the point of departure for forming the conceptual framework for this study.

1.3 Theoretical framework for studying organisational change via VETiS across Secondary schools

Theoretical framework provided in Chapter Two maps the conceptual tools that have been used for theorising organisational changes in Senior Secondary education. This theoretical framework is developed from an in-depth study of two book-length research monographs by a British (Hamilton, 1989) and an American researcher.

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6 The features of young adults at risk recognised in Australia include “family dysfunction, pregnancy and individual and family perceptions of the future and the role schooling plays in it (Paterson cited in te Riele, 2007, p. 56).
(Kliebard, 1999) (along with a series of journal articles) to bring an international, albeit Anglophone perspective to the exploratory case study of organisational change of Senior Secondary schools in Queensland, using publicly accessible communications. Below is a brief introduction to these key concepts as they relate to organisational changes in schooling, the relationship between education and production, and vocationalism.

1.3.1 Hamilton’s organisational development of schooling

It may seem today that educational reforms are conducted against the status quo – classrooms, desks, blackboards – which is assumed to have existed since time immemorial. However, changes happen all the time in different respects of schooling throughout its educational history. Hamilton (1989, p. 1) states that “the multi-teacher, multi-room school is of recent vintage – a monument to the educational reforms of the late 18th century”. Hamilton (1989, p. 111) notes that “the school building” was eventually organised to bring “teachers, classes and rooms into one-to-one relationship”.

Schooling was organised to be recognisably different from other social institutions by creation of school terms, curriculum and class. Schooling became socially important because it organised “a means of managing the ‘common’ (i.e. unskilled) labour market” (Hamilton, 1989, p. 17). Organisational changes to schooling were indispensable to educational change. From an organisational perspective assumptions about that makes ‘schooling’ rather different from ‘education’ (Hamilton, 1989).

1.3.2 Bernstein’s relationship between education and production

According to Bernstein (1977), the organisational relationship between education and production is such that it can be either separated or integrated, depending on different elements. The key to organising the relationship between education and production is the power of the classification between these two categories:
Where this classification is strong, then the principles, contexts and possibilities of education are not integrated with the context, processes and possibilities of production. Where the classification is weak, the principles, contexts and possibilities of production are integrated with the principles, contexts and possibilities of education (Bernstein, 1977, p. 188).

When the classification is strong, production (work) and education (knowledge) are organised so that they are insulated from each other as was the case in the tradition academically-oriented, university-focused Senior Secondary school. When the classification is weak, it is possible to organise their integration, as occurs through VETiS.

1.3.3 Kliebard’s vocationalism

Kliebard’s (1999) theory of the history of vocational education and training is framed in terms of three key concepts – manual training, vocational education and vocationalism. Manual training as a national movement to reform the organisation of schools began in 1876 “to take shape as a response to radical transformation of working relationships and the nature of work itself” (Kliebard, 1999, p. 3) in the USA. It was considered as a link between the older values and the mechanised forces (Kliebard, 1999). Vocational education began in early twentieth century with an explicit promise to economic benefits both to the individual and to the nation. It increased the chance to make the curriculum function directly and visibly in relation to students’ projected work life (Kliebard, 1999). Vocationalism is the educational model that comes from the application of the teachings and demands of business and industry to the curriculum as a whole (Kliebard, 1999). It represents an image of what education is to be organised for and an educational ideal attached particularly to occupational competence (Kliebard, 1999).

1.4 Intellectual context: Empirical research literature

The research focus of this study is an exploratory case study of trends in organisational change to create a ‘hub-and-spoke’ mode of inter-school organisation through Governments’ policies, school curricula, teacher professional learning, school public communications for the benefit of student learning and earning
outcomes. The limited literature cited here is intended to provide an insight into the ways in which a broader range of literature is reviewed fully in Chapter Three. The research literature reviewed in this Chapter provided the background to this study of organisational changes in Senior Learning (Year 10, 11, 12). Below is a summary of the current state of knowledge about the role of VETiS. This initial overview of the literature provides insights into the significance of this research project and served as a preliminary basis for refining the above research questions.

1.4.1 Research on the status of Senior Learning

There is a dilemma when it comes to reforming Senior Secondary schools in ways that improve learning (see Table 1.1) – there is “a growing mismatch between formal educational policy in terms of what is required … and what is likely to work at the school and classroom level” (Smyth & Fasoli, 2007, p. 274). In current senior education, the reforms of education systems have been aimed at getting more students achieving an appropriate level of educational attainment to enable a successful transition into the modern workplace (Stanley, 2007). However, the world of work is changing and this creates a dilemma for “education systems in managing preparation for changing conditions which are not clearly predictable” (Stanley, 2007, p. 91). Re-engaging early school leavers and increasing students’ workforce participation are issues being addressed by Australia’s school education systems.

Historically, positive outcomes emerged for some at least from contexts where “fair boundaries were established and in which students could see school as a place where they could experience fun in their learning” (Smyth & Fasoli, 2007, p. 273). Yet schools are not the only place for Senior Learning because learning also happens in workplaces and other sites. The workplace has an advantage over formal educational institutions in that “pedagogic activity is likely to be spread across a much broader range of people” (Unwin et al, 2007, p. 345). Moderate work combined with school appears to facilitate the educational attainment of some disengaged youth. From a policy perspective the focus on VETiS pathways appears to be “popular among lower achieving students taking the courses and appears to facilitate their transition to the workforce and orient them towards further vocational training (Stanley, 2007,
p. 98). Since learning happens in the workplace, what is the status of students’ earning while at school?

### Table 1.1
**Research on the status of Senior Learning**

<table>
<thead>
<tr>
<th>Author &amp; date</th>
<th>Article title</th>
<th>Research topic</th>
<th>Research method</th>
<th>Site and participants</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanley (2007)</td>
<td>Dilemmas in Post-Compulsory Education</td>
<td>Dilemmas Post-secondary education</td>
<td>survey</td>
<td>NSW Year 10 school leavers</td>
<td>Re-engage students; increase workforce participation</td>
</tr>
<tr>
<td>Staff and Mortimer (2007)</td>
<td>Consequences for Educational Attainment</td>
<td>Consequence, Educational attainment</td>
<td>Survey Questionnaire</td>
<td>US 1010 teenagers</td>
<td>Working conducive to receipt of degree</td>
</tr>
<tr>
<td>Unwin et al (2007)</td>
<td>The interconnections between context, learning and pedagogy in the workplace</td>
<td>Interconnections Context, learning Pedagogy workplace</td>
<td>Case study Qualitative Quantitative</td>
<td>UK</td>
<td>Important impact of context on pedagogical practice</td>
</tr>
</tbody>
</table>

1.4.2 Research on students’ earning while at school

Research has shown that many young adults work while at school, but there was substantial variation in the probability of working (see Table 1.2). Those who lived in or near major cities were found to be more likely to work, and Indigenous Australians were among those with the lowest probability of working (Biddle, 2007). Two groups that were much more likely to work long hours were those “who live in very remote parts of Australia and those who live in a household where no one has an educational degree” (Biddle, 2007, p. 204). For those who were working, most of them knew what their employers looked for from them. Employers needed two skills, namely ‘soft’ skills and employability skills, and the ‘right’ attitudes, including a willingness to work, a desire to learn, punctuality, honesty and appropriate personal behaviour and presentation.

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7 All the Tables and Figures used in this study are not in APA style due to the formatting flexibility required by the University of Western Sydney.
Some employers depend heavily on student workers, especially in the food and retail industries, and students also need the jobs to earn some money and to gain work experiences, so the benefits tend to be reciprocal. Smith and Patton (2007, p. 8) observe that

companies needed to recruit young people that could adequately do the job. Students needed jobs that paid a reasonable wage, were enjoyable, provided flexible working hours yet also security, and, if possibly, provided transfers among different locations.

Student-workers can use their part-time jobs to seek full-time jobs after graduation, tertiary education or to design their future in other ways. Yet youth labour market status is very complicated. Not all student-workers are happy with their work, because there is a ‘dog eats dog’ phenomenon (Smith and Patton, 2007). They need the guidance in job hunting and doing the work. Even so, students themselves have a positive view towards their part-time jobs and they use them to design their future. However, such work would seem to take up some of the time they need for studying, thus affecting their school performance. Does working have a positive or a negative impact on learning? Are working and learning contradictory experiences?

### Table 1.2

<table>
<thead>
<tr>
<th>Author &amp; date</th>
<th>Article title</th>
<th>Research topic</th>
<th>Research method</th>
<th>Site and participant</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biddle (2007)</td>
<td>The labour market status of Australian students</td>
<td>Labour market students</td>
<td>statistics</td>
<td>Australian dataset</td>
<td>Variation in the probability of working and unemployment</td>
</tr>
<tr>
<td>Taylor (2005)</td>
<td>What employers look for from their future employees?</td>
<td>What employers look for employees</td>
<td>interview</td>
<td>Australia 53 enterprises</td>
<td>soft skills employability skills, 'right’ attitudes</td>
</tr>
<tr>
<td>Smith, Patton (2007)</td>
<td>Employers and student-working</td>
<td>Employers, Students working</td>
<td>interview</td>
<td>47 college students; 27 student-workers; 11 managers</td>
<td>Company and students need each other</td>
</tr>
<tr>
<td>Vickers, Lamb &amp; Hinkley (2002)</td>
<td>How students use part-time jobs as they design their futures</td>
<td>Part-time jobs Future design</td>
<td>survey</td>
<td>Australia 8600 students</td>
<td>Part-time job positive future design</td>
</tr>
</tbody>
</table>
1.4.3 Research on students’ learning and earning

The majority of high school students have part-time work (see Table 1.3). This kind of employment is a common activity among youth and is regarded by many young adults as “an integral part of their identity” and “approximately 80% of high school students work some time during high school” (Singh, Chang & Dika, 2007, p. 1).

There is no agreement on whether part-time work has a positive or negative effect on students’ achievement. Some research findings indicate employment has small negative impacts on the academic achievement (Rothstein, 2007), while many others have found that there is a negative effect (Dagenais, Montmarquette & Viennot-Briot, 2001). However, one view is consistent, that is, if the students work long hours, employment definitely has a negative effect on learning. From a student’s point of view, most of them favour part-time employment and provide a positive interpretation of their working experiences. Hobbs, Stack, McKechnie and Smillie (2007, p. 133) note that “many young employees had a positive view of their job and claimed that there is potential to gain skills that may be of value in later life”.

Young adults’ part-time employment is “a direct predictor of STWT [school-to-work transition] success, as a mediator of distal factors on STWT success, and as moderator variable that interacts with other role identities in influencing STWT success” (Ng & Feldman, 2007, p. 114). However, there is a need to do further research on breadth and depth of socio-academic outcomes from Senior Learning where learning and earning are integrated. Education and training reforms in Queensland, for instance, have blurred the boundaries between education, training and work; schools are no longer the only site for Senior Learning (Harreveld & Singh, 2008).

Work-based learning experiences have the possibility for making the theoretical aspects of academic disciplines less abstract and more meaningful for students, and can encourage deeper learning. What research has been taken to better understand the relationship between earning and learning and to measure the improvement in the status of young adults in the labour market?
Table 1.3  
Research on students’ learning and earning

<table>
<thead>
<tr>
<th>Author &amp; date</th>
<th>Article title</th>
<th>Research topic</th>
<th>Research method</th>
<th>Site and participant</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rothstein (2007)</td>
<td>High School Employment and Youths’ Academic Achievement</td>
<td>School employment, Academic achievement</td>
<td>Qualitative</td>
<td>US 4712 Youngs</td>
<td>Small negative impacts</td>
</tr>
<tr>
<td>Singh, Chang &amp; Dika (2007)</td>
<td>Effects of Part-Time Work on School Achievement During High School</td>
<td>Part-time work, School achievement</td>
<td>questionnaire</td>
<td>US, 1547 Grades 9-12 students</td>
<td>Negative effect</td>
</tr>
<tr>
<td>Ng &amp; Feldman (2007)</td>
<td>School-to-work transition</td>
<td>School work transition</td>
<td>Qualitative</td>
<td>Literature, 8 propositions</td>
<td>3 roles: predictor, mediator, moderator</td>
</tr>
<tr>
<td>Stokes &amp; Wyn (2007)</td>
<td>Young people’s perspective on work and learning</td>
<td>Young adults Perspective Work and learning</td>
<td>Survey Interview</td>
<td>Victoria Over 400 young people</td>
<td>depth /breadth learning; dichotomy: adult and youth; blurring boundaries of (in)formal learning sites</td>
</tr>
<tr>
<td>Hobbs &amp; others (2007)</td>
<td>School Students’ Views on Their Paid Employment</td>
<td>Students view Paid employment</td>
<td>Questionaire Interview</td>
<td>Scottish schools, 70 15-year olds</td>
<td>Positive interpretation of experience; positive view on job</td>
</tr>
<tr>
<td>Smith, Clegg, Lawrence, &amp; Todd (2007)</td>
<td>Reflection-based study on students learning from work placements</td>
<td>Student learning Work placement</td>
<td>Case study: interview</td>
<td>UK, 9 students and 2 staff</td>
<td>Value of reflection: rewarding and challenging</td>
</tr>
</tbody>
</table>

1.4.4 Research on VET in Schools (VETiS)

In Australia, VET is now a widespread practice in Senior Schooling (see Table 1.4). Anlezark, Karmel and Ong (2006, p. 13) note that school VET programs are popular among Year 11 and Year 12 Secondary School students. Since their introduction in 1996, when 16% of Senior Secondary School students participated in these programs, their popularity had grown to almost 50% in 2003.
VETiS offers better employment prospects having a positive effect on young adults’ transition from school to work. Woods (2007, p. 5) found that “by 21 years of age, trainees were less likely to be experiencing unemployment and more likely to be earning higher wages than the comparison group of young people”. However, VETiS has its problems, with research indicating “a positive effect on Year 10 to Year 11 retention, but a negative effect on Year 11 to Year 12 retention” (Anlezark, Karmel & Ong, 2006, p. 49).

There are problems in carrying out VETiS. One problem is that VETiS has been seen to “be a ‘soft’ option and of low status” (Dalley-Trim, Alloway, Patterson & Walker, 2007, p. 29). The possible consequence is that “if VET is perceived as a dumping ground for academic failures and delivered as such, then it is doomed” (Dalley-Trim, Alloway, Patterson & Walker, 2007, p. 29). This may affect some young adults in participation and completion of the program. In this case organisational changes in Senior Secondary Schooling are to better accommodate VETiS in a traditionally academic environment. Thus, educational reforms are necessary and imperative.

Table 1.4
Research on VET in Schools

<table>
<thead>
<tr>
<th>Author &amp; date</th>
<th>Article title</th>
<th>Research topic</th>
<th>Research method</th>
<th>Site/ participants</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anlezark, Karmel, and Ong (2007)</td>
<td>The success of VETiS program</td>
<td>Success VETiS</td>
<td>Survey Aggregate approach</td>
<td>NSW 8000 students</td>
<td>Positive: Y10 to Y11 retention; negative 11-12; pathway</td>
</tr>
<tr>
<td>Woods (2007)</td>
<td>The role of VET in helping young people’s transition from school to work</td>
<td>VET Young adults transition</td>
<td>Quantitative</td>
<td>Adelaide</td>
<td>Better employment, positive effect on transition</td>
</tr>
<tr>
<td>Dalley-Trim, Alloway, Patterson &amp; Walker (2007)</td>
<td>Career Advisers’ Perceptions of VETiS</td>
<td>Career adviser Perception VETiS</td>
<td>Interview</td>
<td>WA, WLD, NSW, 9 schools, 11 advisers</td>
<td>VETiS as soft option, low status</td>
</tr>
</tbody>
</table>
1.4.5 Research on education and training reform

Since there are problems in Senior Learning engaging with all young adults through to the successful completion of Year 12, organisational changes have been necessary (see Table 1.5). However, from the point of view of social class the importance of equity of access to the academic tradition of senior education is “being challenged throughout Australia” (Bardsley, 2007, p. 493). For those disadvantaged students there is considerable debate about changing their educational provision. For instance, the reforms that make schooling work better for marginalised students in alternative programs can improve schooling for most students in regular schools as well (te Riele, 2007).

All the students, regardless of race, socio-economic status and academic standing, expect to receive equal and high quality education. The globalisation of policies in this field suggests many opportunities (Bardsley, 2007). Reforming Senior Learning seeks to address the opportunities and meet the challenges posed by economic globalisation in particular (Apple, Kenway & Singh, 2005). Harreveld (2007, p. 287) notes that “complex and sometimes contradictory relationships between people at all levels and sectors of education and training contribute to the opportunities and challenges of making Senior phase learning work for young people”. The support from multiple levels of education systems across multiple agencies is important in this context. Harreveld and Singh (2008, p. 12) put it thus, governments devised “ways and means of using existing resources to entice the imagining of innovative opportunities for schools to broker learning provisions for all young people”. While these reforms to the place of education, training and work in Senior Learning led to many necessary organisational changes, little if my research has studied these developments.

<table>
<thead>
<tr>
<th>Author &amp; date</th>
<th>Article title</th>
<th>Research topic</th>
<th>Research method</th>
<th>Site and participants</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bardsley (2007)</td>
<td>Education for all in a global era?</td>
<td>Education for all in global era</td>
<td>Document analysis</td>
<td>Australia</td>
<td>High quality education; globalisation offer opportunities</td>
</tr>
</tbody>
</table>
This research investigates organisational changes in Senior Learning (Years 10, 11 and 12), specifically the organisation of a group of Queensland Secondary Schools to provide Vocational Education and Training in Schools programs through a hub-and-spoke organisational model. The aim of this project is to develop a better understanding of the organisational articulation of learning and earning through integrating school and work, education and training in the Queensland Minerals and Energy Academy (QMEA). The literature reviewed for this project synthesised findings from research into VETiS at different levels and from different aspects. The review of this literature informed the framing of the main and contributory research questions.

1.5 Research method

Educational research has to meet both epistemic and practical criteria because it aspires to be a ‘practical science’:

‘practical’ in the sense that it seeks to generate rational knowledge that has a significant and worthwhile effect on the decisions and judgements of educational policy-makers and practitioners; a ‘science’ in the sense that it seeks to generate this knowledge in accordance with prevailing standards of rigour, rationality and truth (Carr, 2007, p. 271).

Doing educational research, a researcher needs to be original or creative (Bohm, 1996), scientific (Woolgar, 1988) and true (Blackburn, 2005). Creativity, being scientific, and being truthful are the basic principles for educational research. It was on the basis of these principles that I designed my research for this project.
My research design provided a ‘blueprint’ of the research process(es) and was flexible rather than fixed (Robson, 2002) (see Figure 1.1). A flexible research design for this study is to make it possible to deal with five key problems: what questions to study, what data are relevant, what data to collect, how to analyse the data to determine the results, and what would the evidence provide as a basis for an original contribution to knowledge. The main purpose of this flexible research design was “to help to avoid the situation in which the evidence does not address the initial research questions” (Yin, 1994, p. 20).

![Figure 1.1 Plan of the research process (Source: based on an idea by M. Singh)](image)

Case study method was used to collect and analyse data that address the main and contributory research questions. Specifically, the evidence was generated through
collecting public documents and retrieving news reports from QMEA school websites, as well as interviews with school principals, VETiS coordinators and partnership managers. The evidence for my study comes from four sources: School Annual Reports (2007-2008), Next Step Survey (2008-2010) (Queensland, 2008, 2009, 2010), school newsletter reports (2009), and interviews. The collection and analysis of each of these sources needed different research skills and methodological procedures. All this evidence has been subjected to multiple levels of analysis, beginning with open coding through to conceptual analysis. The purpose was to ensure that the results of this study are credible and that its implications have relevance for further organisational changes in Senior Secondary education that integrates learning and earning.

My data analysis consisted of examining, coding, categorising, tabulating and recombining the evidence to address the main and contributory research questions posed by this study (Yin, 1994). The first strategy was to explore the theoretical concepts derived from Hamilton (1989), Bernstein (1977) and Kliebard (1999) and which informed this study. The key conceptual tools to be used for data analysis purposes are schooling, relationship of education and production, and vocationalism. The flexible design of this study was informed by these concepts, which in turn reflected the research questions and review of the research literature (see Chapter Three) relating to the substantive issues to be investigated. These concepts shaped the data collection plan and therefore were given priority in the analysis of the data.

1.6 Statement of thesis

This study explored the presence and/or absence of the ‘hub-and-spoke’ model in Government policies, school curricula, teacher professional learning, public communications, and students’ outcomes, and in doing so provides important new co-ordinates for understanding possible organisational developments in the organisation of Senior Secondary. Here it is necessary to sounds several caveats: the research focus of this study is (a) not a study of school system reorganisation at State Department level, and (b) not in school-based organisational models for VETiS. Instead, this study focuses on the creation of inter-school organisational units or a ‘hub-and-spoke mode of inter-school industry oriented organisation,’ which is
progressively defined as a result of the study reported in this thesis (see Chapter 10). This exploratory case study of organisational change is tackled through publicly available data relating to what this means for the organisation of school curricula, teacher professional learning, school public communication and students’ pathways. The assumption is that with the prospects of developing ‘hub-and-spoke’ modes of inter-school organisation, the performance and competence in core areas of schooling can be expected to change, and that this study contributes to an exploratory understanding of what these issues means for the potential of constructing such an organisational mode in the school sector.

The major contribution to knowledge by this empirically grounded and theoretically informed case study of organisational changes in Senior Secondary is expressed in the following thesis statement.

*This thesis argues that the success of organisational changes in VETiS to improve student outcomes in terms of their immediate post-school destinations, depends on VETiS policy, school curricula, teacher professional learning and the public communications.*

More specifically, it is argued that there is a need for an explicit VETiS policy, which addresses the ‘hub-and-spoke organisational mode’ as an organisational change strategy for Senior Secondary Schooling. Further, it is argued that such organisational changes need to find expression in the school curricula, teacher professional learning, and public communications of VETiS initiatives. In addition, it is argued that the success of the ‘hub-and-spoke’ model of organising Senior Schooling can be judged using evidence of improvements in student outcomes, especially their immediate post-school destinations. However, there is a need to be mindful that a range of social, financial and environmental factors might constrain both this organisational change strategy and its benefits for students.
1.7 Structure of thesis

This thesis is developed using the following structure.

Chapter Two sets out the theoretical concepts which are used in the evidentiary Chapters to provide a deeper and analytical understanding of the issues developed there. The researcher chose aspects of the history of schooling and education (Hamilton, 1989), the relationship between education and production (Bernstein, 1977), and the notion of vocationalism (Kliebard, 1999). Most of this Chapter is about explaining these concepts and setting the scene for the ensuing analysis.

Chapter Three provides an overview of the recent literature on Senior Learning. The literature is reviewed concerning related themes and issues such as how VETiS came about, and how it satisfied the needs of a range of stakeholders. It provides information on organising knowledge in and through school curriculum, teacher professional learning for organisational change, VETiS communication, re-organising schools and student pathways.

Chapter Four explains and justifies the research methods used in this research. The research design describes each of the various pieces that are used to build up the data and evidence for the thesis. This Chapter focuses on the principles for doing educational research, the research design for this case study, the principles and procedures for data collection and analysing the case study evidence and research ethics.

Chapter Five presents an analysis of the policies related to VETiS that are essential to this research. The data analysis in this Chapter follows two different approaches, a dramaturgical coding method and the excerpt commentary analysis. It analyses Government motives for producing VETiS policies, strategies in organising Senior Learning through VETiS, the hub-and-spoke organisational mode for VETiS, and then provides a theoretical interpretation of the evidence analysed in this Chapter.
Chapter Six gives an analysis of the curricula (2007 and 2008) of QMEA schools (n=18), focusing on VETiS related courses and activities and reporting on the organising of knowledge as core or extra curricula. Curricula are analysed with respect to vocational and academic, core and extra curricula. The analysis centres on changes in organising knowledge in QMEA school curricula, the variety of VETiS offerings in the core and/or extra curricula, VETiS courses versus academic courses offered in QMEA school curricula, and the presence or absence of VETiS courses and/or activities in school curricula. Finally this Chapter gives a theoretical interpretation of the meaning and significance of this evidence, and the inferences to be drawn.

Chapter Seven analyses the teacher professional learning (2007 and 2008) offered by QMEA schools (n=16). The analysis focuses on organisational changes in the teacher professional learning offered by QMEA schools, schools’ investment in teachers’ professional learning, and teachers’ involvement in the professional learning initiatives. Then the data and findings are immediately utilised within the theoretical framework and in particular Kliebard’s (1999) concept of vocationalism.

Chapter Eight provides an analysis of the public communication about VETiS made by QMEA schools (n=7) through their published Newsletters in 2009. The focus of this analysis is on the organisational representations of VETiS through the QMEA schools’ public communications. Finally, the theoretical framework is brought to the analysis through the use of Kliebard’s (1999) vocationalism and Bernstein’s (1977) notion of correspondence between learning and earning, education and production.

Chapter Nine presents an analysis of students’ immediate post-school destinations (2008, 2009 and 2010) using data drawn from Next Step reports of QMEA schools (n=12) (Queensland, 2008, 2009, 2010). The data from three different years for different forms of VETiS outcomes are presented for comparison across the different schools that fall under the umbrella of the QMEA. The theoretical framework is once more used to interpret and give further consideration of the evidence from this Chapter.
Chapter Ten provides a summary of the thesis in terms of researcher capacity building throughout the course of this study. It then presents the key findings from this study, that is the original contribution to knowledge that arises from this project. Summative tables and figures are presented in this Chapter. The limitations and delimitations of the research reported in this thesis are noted. In addition to noting implications for the policies and practices, this Chapter touches on the researcher’s reflections and ideas about further research to build on this study.
CHAPTER TWO
CONCEPTUALISING ORGANISATIONAL CHANGES IN SENIOR SECONDARY SCHOOLING

2.0 Introduction

The title of this thesis uses the term ‘hub-and-spoke model.’ What is to be understood by this concept? Giving a definition to this term brings out certain difficulties which are integral to the focus of the research reported in this thesis. This is because the idea of a ‘hub-and-spoke mode of school/industry organisation’, abbreviated as ‘hub-and-spoke organisational mode’ built around a particular economic sector, such as in this study the minerals and energy sector, has not been defined in the educational literature. Thus, this thesis gradually pieces together various components of this concept over the course of these Chapters. This Chapter brings together a series of theoretical concepts to give some form and substance to the concept of a ‘hub-and-spoke model of industry/school organisation.’ Specifically, this research brings together concepts from the educational theorists Hamilton (1989), Bernstein (1977), and Kliebard (1999). In the absence of relevant theories of hub and spoke modes of school organisation, this Chapter begins with concepts drawn from the transportation industry (Alderighi, Cento, Nijkamp & Rietveld, 2007; Kude, Dibbern & Heinzl, 2008; Zäpfel & Wasner, 2002). Together these multidisciplinary resources are used to construct inductively a theoretical framework for the purposes of investigating the concept of a ‘hub-and-spoke model of industry/school organisation.’ This approach resonates with Talcott Parson’s translation of Weber’s (1992, pp. 13-14) explanation of how he developed the concept of the ‘spirit of capitalism’:

an historical concept … cannot be defined according to the formula, but it must be gradually put together out of the individual parts which are taken from historical reality to make it up. Thus the final and definitive concept cannot stand at the beginning of the investigation, but must come at the end. We must, in other words, work out in the course of the discussion, as its most important result, the best conceptual formulation of what we understand … that is the best from the point of view which interests us. This point of view is by no means the only possible one from which the
historical phenomena we are investigating can be analysed. Other standpoint would … yield other characteristics as the essential ones.

This study followed Weber’s procedure of coming to understand what the concept of ‘hub-and-spoke model of industry/school organisation’ means through the process of analysis undertaken through this exploratory case study of organisational change (Yin, 2003). Thus, this thesis develops the meaning of this concept through the concrete sets of ideas in this and the ensuing Chapters of this thesis, and does not try to capture the meaning of this concept by abstract principles:

Thus, if we try to determine the object, the analysis and historical explanation of which we are attempting, it cannot be in the form of a conceptual definition, but at least in the beginning only a provisional description of what is meant. Such a description is, however, indispensable in order clearly to understand the object of the investigation (Weber, 1992, p. 14).

Rather than starting with a formal conceptual definition, the theoretical framework developed in this Chapter is a beginning to developing a provisional definition of what is meant ‘hub-and-spoke model of industry/school organisation’. This definition is indispensable for collecting and analysing evidence of this phenomenon. This is necessary and important in forming the theoretical basis and in understanding and interpreting the objective of this research reported in this thesis.

The concepts presented in this Chapter provide the theoretical framework for driving the collection and analysis of data about reforms made through organisational changes in Senior Secondary schools associated with VETiS. With the Government policies being mentioned in Chapter One and analysed in detail in Chapter Five, this Chapter starts with the concept of hub-and-spoke organisation (Zäpfel & Wasner, 2002, Alderighi et al, 2007, Kude et al, 2008). Hamilton’s (1989) concepts concerning the development and organisational changes to schools in Britain are the focus of the second section. Then, Bernstein’s (1977) ideas on the relationship between education and production are elaborated to conceptualise changes in the separation or integration of these processes. Kliebard’s (1999) history of vocational education and training in schools in the USA provides key concepts concerning
vocationalism which are addressed in the last section (see Figure 2.1). Together these concepts provide tools for analysing organisational changes in Governments’ policies, school curricula, teacher professional learning, public communications and students’ outcomes of the QMEA schools.

![Diagram](image)

**Figure 2.1 Theoretical framework for collecting and analysing evidence**
(Source: based on an idea by M. Singh)

This Chapter addresses the question of what conceptions of innovations in the organisation of schooling might be useful for theorising the introduction of VETiS into Queensland secondary schools. Given the focus of the research problem explored in this thesis, this Chapter analyses the conceptual tools that have been used for theorising organisational changes in Senior Learning (Year 10, 11, 12). Key concepts related to organisational change in schooling are point-to-point system, pure hub-and-spoke system, ‘hybrid’ hub-and-spoke system; ‘class’, ‘school’, ‘pedagogy’; the integration and segregation of education and production; manual training, vocational education and vocationalism. The conceptual framework of organisational changes in schools elaborated upon in this Chapter can be represented visually as being structured both vertically and horizontally (see Figure 2.2).
Figure 2.2 Conceptual framework for an exploratory case study of VETiS driven organisational changes in Senior Secondary Schooling (Source: based on an idea by M. Singh)

This theoretical framework is based on more than that provided by Kliebard (1999). Further, because the ‘hub-and-spoke model’ has not been used toanalyse organisational changes in Senior Learning engaging in VETiS in Queensland previously research from the transporation industry has been used. This reflects
Hamilton (1989) argument that the history of the organisational development of schooling has derived much from developments in industry.

Organisational changes in schools are often inconceivable until the time when the goals of such changes are harnessed to a rationale for its delivery. The VETiS policy-driven notion of changes to Senior Secondary Schooling presumes that appropriate routemaps and vehicles for changes are made available. However, without these resources, changes “remain a disorderly affair” (Hamilton, 1989, p. 151). To account for these changes, the research reported in this thesis involved undertaking a two-fold task. First, this study identified the circumstances that warranted changes; and second, it charted the cultural and material realignments that gave these changes their innovative character. These two aspects of changes are relatively independent. New circumstances may not necessarily evoke changes in secondary education. Outdated remedies may simply be applied with renewed vigour. Sometimes, however, new practices, ideas and modes of organisation are invented to bring schooling more into line with new socio-political and economic priorities. But such ‘solutions’ do not just happen. Nor are they simply ‘read off’ from the ‘problem’. Rather, their emergence is contingent upon a reappraisal both of the problem itself and of the resources that might be applied to the problem’s resolution. For the purposes of this study conceptualising organisational changes in Senior Schooling was investigated through studying the historical development of hub-and-spoke organisational mode.

2.1 Hub-and-spoke organisational mode

Governments of different levels engage in “reform after reform”, promising to meet the increasing and diverse needs of students (Lashaw, 2008, p. 110). Now I turn to an interrelated strategy, a hub-and-spoke model, which presents possibilities for organisational innovations in and through VETiS. This strategy is investigated to identify potential concepts that could possibly inform further reforms in organising schools as they are pressed to deliver vocational education and training.

The hub-and-spoke organisational mode was derived initially from transportation and logistics in the airlines (Zäpfel & Wasner, 2002), and is also used in software industry (Kude, Dibbern & Heinzl, 2008). Hub-and-spoke model is an organisational
structure in which single depots cover an area with specific collection and delivery points for every terminal. The depots are connected by at least one transshipment centre – a hub (Zäpfel & Wasner, 2002). There are two types of hub-and-spoke systems, namely the ‘pure’ hub-and-spoke system and the ‘hybrid’ hub-and-spoke system.

In a pure hub-and-spoke system, logistics firms cooperate with other logistics providers to offer transport services within a region. Providers located in different geographical positions build “a common transportation network acting under a single name as a joint venture” (Zäpfel & Wasner, 2002, p. 207). Transportation in a pure hub-and-spoke system involves first, picking up goods; second, sorting them; third, the delivery of the freight (Zäpfel & Wasner, 2002). It is also possible to execute the transports of goods by sending them directly from the collection depot to the receiving depot without using a hub. In this case, the pure hub-and-spoke structure is transformed into a hybrid hub-and-spoke system. There are many variations on the pure hub and direct transport models (Zäpfel & Wasner, 2002).

A key problem involved in designing hub-and-spoke organisational systems concerns the hub location and routing, and when applied to any given organisation these require different solutions or methods (Zäpfel & Wasner, 2002). There are two different variants to addressing the problem of designing the hub’s routing system. The first is that all traffic from a given point must flow through a specific hub before proceeding to its destination. The second is that the organisation permits trips from a given origin to different hubs or nodes depending on the destination (Zäpfel & Wasner, 2002). The pure hub-and-spoke system has the advantage that the logistic flows are grouped for shipment from one terminal to another.

Like school innovations (Hamilton, 1989), costs are also an important issue for designing hub-and-spoke systems. Costs for transportation can be reduced by decreasing mean distances between depots or nodes to increase the efficiency. Cost reductions are possible “by additionally introducing direct transports between depots into the hub-and-spoke structure” (Zäpfel & Wasner, 2002, p. 210). In the airline industry, the hub-and-spoke networks are organised similarly throughout the world, albeit with some variation within nations.
The organisation of a hub-and-spoke (HS) system in the airline industry has been transformed from its prior point-to-point (PP) system by organising the network structures. In the hub-and-spoke system, ‘technical bases’ are hubs (large airports), with nodes (small airports) playing the role of connecting, thus, forming the network (Alderighi, Cento, Nijkamp & Rietveld, 2007). Figure 2.3 depicts the hub-and-spoke model as a network of three nodes (A, B and C) and a hub (H), revealing spatial concentration and connectivity.

![Figure 2.3 Hub-and-spoke network](source)

Network complexity is caused by the basic characteristics of organisational structures. The centrality of a node (the hub) in a network is “a measure of the structural importance of the node” (Alderighi, Cento, Nijkamp & Rietveld, 2007, p. 534). The centrality of a few nodes varies quite considerably. This means spatial centralisation is strong. The network centrality allocates a high centrality to those nodes (the hubs) that are more often visited by “‘geodesic paths’, the shortest paths that link two nodes” and those paths which may be chosen in order “to minimise travel time or the number of connections” (Alderighi, Cento, Nijkamp & Rietveld, 2007, p. 537).

The overall pattern of distances among airports reflects the global network, while additional patterns shape the local network: the nodes are “more central to the main pattern of distances” (Alderighi, Cento, Nijkamp & Rietveld, 2007, p. 539). The presence of many local structures indicates “no global structure dominates the
network” (Alderighi, Cento, Nijkamp & Rietveld, 2007, p. 541). The attraction of the network is its shorter time connection.

Hub-and-spoke networks are also modes of organisation used in the software industry, which is managed in a similar way as the airline industry. Within the software industry network, a limited number of large organisations – hubs – provide “the systems’ architecture and generic core functionalities”, while smaller companies – spokes – build “their solutions upon and complement these platforms” (Kude, Dibbern & Heinzl, 2008, p. 2). The spokes represent independent legal entities that can sell their solutions directly to the market. There is no direct exchange of tradable goods between the hub and the spokes. Through their partnerships with a hub, spokes can “access external resources and dynamic capabilities that the hub disposes of” (Kude, Dibbern & Heinzl, 2008, p. 8).

Technologically, hubs provide the architecture that the spokes’ solutions are based upon, and innovations in this organisational architecture are “crucial in a dynamically changing environment” (Kude, Dibbern & Heinzl, 2008, pp. 8-9). Hubs provide the social capital that spokes could benefit from, in that “they improve their own visibility and credibility by making use of the hub’s reputation and high profile and encourage hub personnel to recommend and promote the spoke’s solution” (Kude, Dibbern & Heinzl, 2008, p. 9). The hub organisation also benefits from the spokes’ strategic resources. Hubs benefit from the network of spokes as a whole and symbolically form a relationship with the network. Because the hub strives to become a genuine standard, this network is “especially valuable for the hub if a great number of spokes participates” (Kude, Dibbern & Heinzl, 2008, p. 13). Hubs aim at “relational extendibility”, that is the capability “to reconfigure existing competencies for new inter-organisational relationships” (Kude, Dibbern & Heinzl, 2008, pp. 13-14).

Within the hub-and-spoke network, a hub and the spokes pursue different agenda. A hub benefits from “complementarities with the network of spokes, [while] spokes create value through accessing external resources that reside within the hub organisation” (Kude, Dibbern & Heinzl, 2008, p. 22). Spokes invest in hub-specific benefits, whereas the hubs’ investments are mainly specific to the network. While
hubs face relatively minor threats of opportunistic behaviour, the spokes’ business model may be put at risk if the hub is reluctant to “share resources or capitalises on knowledge spillovers” (Kude, Dibbern & Heinzl, 2008, p. 23). Hubs largely rely on formal governance mechanisms, but spokes seek to apply informal governance mechanisms “to prevent the hub from behaving opportunistically and to gain access to sticky knowledge within the hub organisation, thus exploiting the access to external, complementary resources and ensuring future success” (Kude, Dibbern & Heinzl, 2008, p. 23).

Hubs strive for a standardisation of the partnerships with small companies, but spokes aim at “relational governance and an increased uniqueness of their relationship with the hub” (Kude, Dibbern & Heinzl, 2008, p. 23).

Thus, hubs have to find a reasonable balance between efficiently coordinating the network and satisfying the singular spokes. The ideal goal of a hub organisation is to “enable a ‘mass customisation’ of the governance in their partner networks”, that is to satisfy the spokes’ desire for relational governance (Kude, Dibbern & Heinzl, 2008, p. 25). Spokes may face the problem of “overembeddedness” (Uzzi cited in Kude, Dibbern & Heinzl, 2008, p. 26) by missing opportunities to develop their own capacities if they rely on strong personal ties. In organising a hub-and-spoke network, the distance between the hub and spokes is always problematic. How can the hub and spokes be effectively connected to make a better organisation? Fly-in-fly-out might be a possible option to solve the problem in some industries.

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8 Fly-in-fly-out (FIFO) is a term widely used in the mining and off-shore oil sectors, and provides one approach to improving connectivity in hub-and-spoke organisations. FIFO operations involve a form of irregular work schedules. FIFO is suited to remote operations in the minerals extraction industries throughout the world (Muller, Carter & Williamson, 2008). Staff are flown to the worksite and stay at the site for the duration of the roster. Schedules or timetables are established whereby employees spend a fixed number of days working at the site, followed by a fixed number of days at home (Storey, 2001). Rotation rosters can vary from 4 days on (on site at the mine) and 3 days off (off-site at home) (4 Ds/3 Ds) to 6 weeks on and 1 week off (6 Ws/1 W), and combinations in between, forming a fly-over organisational mode (Kaczmarek & Sibbel, 2008). The problem with FIFO operations is the turnover of the employees. Employee turnover rates are mainly influenced by: “the FIFO roster structure; training and skills development and creating and maintaining a positive workplace culture” (Beach, Brereton & Cliff, 2003, p. ii).
2.2 Organisational changes in the history of schools

Schooling is a widespread and complicated human institution. A key organisational consideration is to maintain “a correspondence between the organisation of schooling and the aims of the political state” (Hamilton, 1989, p. 153). The historical development in the organisation of schooling is closely connected to changes in society.

2.2.1 Schooling and social efficiency

Social efficiency is embodied in different aspects of society and has been used to analyse a range of changes in education and the differences they have made. It is defined as “a set of structural constraints that can be tightened or loosened according to the malevolent (or benevolent) intentions of the educational state, [and] something that is intrinsic to all institutionalised pedagogic processes and to all forms of schooling” (Hamilton, 1989, p. 10).

Hamilton (1989, p. 19) states that the connection between schooling and the labour market is “open to different interpretations of social efficiency”. For instance, some social efficiency protagonists argue for “a reorganisation of secondary schooling into separate ‘vocational’ and ‘liberal’ strands” (Hamilton, 1989, p. 136). However, for Hamilton (1989, p. 154), there are good reasons for the idea that “schooling is simultaneously a site of social regulation and a site of social redefinition”.

Schooling began to take its present shape in the Middle Ages, and has been the object of organisational innovation ever since. It has been being reorganised in accordance with changing ideas about equality and quality. One of the questionable beliefs reinforcing schooling reforms is that “education can do everything” (Hamilton, 1989, p. 152).

In the 16th century, universal schooling came into its own. Universal schooling was a necessary but not sufficient condition for educational reform. Within-school changes were also required. Hamilton (1989, p. 126) notes that
approved or recommended texts were introduced; normal schools were founded for the training of teachers; a variety of regulations were introduced to increase school attendance; and finally, the schoolroom was brought under the influence of a more ‘rational’ pedagogic system.9

The reform of schooling involves efforts to settle the educational interests of the individual with those of the social group. Pedagogically, this has been sought in two ways: “by revising the conventions used to group (or ‘class’-ify) learners; and by changing the criteria used for allocation of educational resources within each group of learners” (Hamilton, 1989, p. 75). After 1890, public schooling was conceived as “a sturdy and increasingly branching structure that both celebrated and delimited opportunities for individual variation” (Hamilton, 1989, p. 124).

Schooling took on a new historical significance in the 20th century. It was seen as important because it was able to “transmit particular occupational skills, to create a morally-trained labour force, or to mediate access to the labour market” (Hamilton, 1989, p.22). A major change to schooling in the 20th century was the substitution of ‘moral’ for ‘scholastic’ purposes (Hamilton, 1989, p. 134). This was reflected in an important turning point in the curriculum: the transformation of “the pedagogic ladder” where the students were allowed to move “forward or backward” into “the pedagogic tree” where students were allowed to “branch out” and do other work” (Hamilton, 1989, p. 134). Apparently, this organisational change provides students with more options while in schools.

Schooling is organised as “a socially efficient and self-regulating educational machine” (Hamilton, 1989, p. 25), because it is both an agency of state-led social regulation and a potential site of autonomous social change. Schooling was once

9 Post-medieval schooling has experienced three stages and intervening transitional periods: the ‘revolutionary’ emergence of modern schooling and the associated stabilisation of an individualised pedagogy; (ii) the seventeenth-century elaboration of this pedagogy as schooling began to incorporate the children of wage labourers; (iii) the ‘revolutionary’ change-over from ‘individualised’ to ‘batch’ production at the time of the Industrial Revolution (Hamilton, 1989, p. 6).

It experienced two intervening transitional periods. The first period was the 19th century extension of simultaneous instruction together with the growth of elementary schooling. The second period in the early 20th century saw the reorganisation of collective teaching into new forms of individualised teaching (Hamilton, 1989).
thought to exist whenever there is evidence of “distinctive educational personnel (eg. ‘teachers’), distinctive educational instruments (eg. ‘textbooks’), and distinctive educational premises (eg. ‘schools’)” (Hamilton, 1989, p. 13). It is an instrument of the political state which is charged with “the transformation of immature human beings into appropriately-socialised adult citizens” (Hamilton, 1989, p. vii).

Where schools are thought to be free from social and economic structures they are seen as being independent sites of educational innovation, with change coming from the ability of teachers to build new educational relationships within the status quo. Hamilton (1989, p. 154) observes that where schooling is thought of as being “alienated from the social, economic and political anchor-points [it] remains ‘of’ society but ceases to be ‘in’ society”.

Claims against the latest organisation innovations in educational institutions are often made as if classrooms, desks and blackboards had existed since time immemorial. This is not the case, however. There is always much to learn by returning to the history of these innovations. The multi-teacher, multi-room school is a monument to the organisational reforms in education in the late nineteenth century.

2.2.2 Early organisational modes of schooling

Changes in educational institutions involve shifts in organisational structures such as creating classes, classrooms and schools. According to Robinson (cited in Hamilton, 1989, p. 110) the word ‘class’ meant “any collection of children under one teacher receiving instruction in the same subject”. It was used to categorise the subdivisions within a school. However, the word ‘class’ took more than 100 years to enter the language of schooling. Hamilton (1989, p. 36) notes that “‘class’ is absent from medieval accounts of schooling, it had enjoyed a limited currency in classical times. The origin of schooling can be found in the Latin word ‘schola’ which means school. From the historical changes in organisational purpose comes a new meaning for ‘schola’: “whereas earlier schools had been populated by ‘disciples’, the new cathedral schools were populated by an alternative translation of ‘discipuli’ – ‘pupils’” (Hamilton, 1989, p. 15). Four related organisational innovations mirror these changes: compulsory schooling; the establishment of the comprehensive secondary schools; creating differentiated ‘curriculums’ within the same school; and pedagogies that blended a concern for individual differences, social adjustment and social unification (Hamilton, 1989, p. 22).
The earliest known use of class is called ‘classes or small schools’” (Hamilton, 1989, p. 36).

The modern sense of class emerged in 1509, when clear divisions of students into classes were established. The divisions were “graduated by stages or levels of increasing complexity according to the age and knowledge acquired by the students” (Hamilton, 1989, p. 41). However, the formation of a stable class was weakened both by irregular pupil attendance and frequent teacher turnover. In this case, the ‘class’ was not usually the organisational unit regarded as most appropriate for instruction. Nor was there any direct connection between instruction and the use of classrooms (Hamilton, 1989).

At an early stage the classroom was called a schoolroom which was divided into standing areas for reading, sitting areas for writing at desks, and galleries for simultaneous instruction which otherwise interfered with the “order, quiet and discipline” of the school (Hamilton, 1989, p. 107). In 1836, a schoolroom was described as having “seats all round and a rising platform or gallery at one end for the purpose of teaching the children in classes” (Hamilton, 1989, p. 105). The managerial rationale for the adoption of class-based ‘instruction’ was that it required orchestrating the presence of a teacher, and also served as a basis for pupil observation. This dual appeal – managerial and pedagogic – eventually brought the ‘classroom system’ into being.

Multi-room schools did not just happen, either. They developed through educational debates. It was held that the “civilising influence of schooling would be weakened if more than 250 pupils occupied the same institution” (Hamilton, 1989, p. 110). Even the construction of large classroom schools did not stop the debate. A large school should be “divided into sections”; and that each section should be divided into drafts containing from ten to fifteen pupils” (Hamilton, 1989, p. 109). The aim of the school was to “cultivate individuality”, a goal that placed the design of “individual occupations” at the centre of teaching (Hamilton, 1989, p. 114). The school building brought teachers, classes and rooms into a one-to-one relationship. Each room was intended to house a single class; and each class was to be left in the overall charge of its own certificated ‘class’ teacher (Hamilton, 1989). These changes marked the
pedagogic renaming of simultaneous instruction as class (or classroom) teaching. Within sixty years the one-room, one-teacher school changed into the multi-room, multi-teacher school. Earlier schools were filled with ‘disciples’, but these new schools were now peopled with ‘discipuli’ – ‘pupils’. This change led to comprehensive high schools designed to address new social efficiency considerations. They were supposed to turn adolescents “not born and bred for supreme rule” into personnel who could be fitted easily into the “ever-developing structures of centralised government” (Hamilton, 1989, p. 13).

With grades sub-divided into classes and with fixed and known standards attached to each grade, these organisational changes were an expression of “batch processing in education”, that is, children were to “stay together in their given class; were to be taught collectively to the required standard; and, thereafter, were to be promoted, as a class, from grade to grade” (Hamilton, 1989, pp. 128-129). The graded system tended to compel uniformity, but the difficulty facing administrators was to “secure a necessary degree of uniformity without ignoring or forcibly reducing differences” in pupils and teachers (Wells cited in Hamilton, 1989, p. 129).

Jardine (cited in Hamilton, 1989, p. 86) sought to organise a shift in the focus of the class away from “the mere communication of knowledge” towards the development of students’ “intellectual powers, the habits of thinking, judging, reasoning, and

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11 In medieval times, ‘school’ had a double meaning. It could refer to “a group of people or to the chamber in which instruction took place” (Hamilton, 1989, pp. 36-37). A medieval school was primarily an educational relationship entered into by a private teacher and a group of individual scholars. A well-ordered school was seen as essential to the maintenance of religious ideas. There are different types of schools. In the ‘double-headed’ schools, reading and writing were taught in two separate rooms, both teachers kept equal authority over all matters of teaching and discipline. The ‘single-headed’ form of schooling was united under the charge of “one master assisted by a sub-master” (Hamilton, 1989, p. 127). Charity schools aimed to reduce the “prodigious ignorance” of the poor (as well as to police them) and embraced “a corpus of knowledge appropriate to their upbringing” (Hamilton, 1989, p. 56). Free schools were established for ‘poor’ girls. To keep these schools going, a large group of reliable teachers had to be created. Then, funds needed to be generated to ensure schools’ survival. Using various one-off donations, people created “residential communities of devoted women who could take responsibility for the day to day running of the schools” (Hamilton, 1989, p. 158). Elementary schools were organised to serve a special group of people - workers’ children. Their origins can be found in the 17th and 18th century charity schools. Christian schools were targeted at the educational interests of families who lay outside the system of Latin-centred colleges. Gradually a homogeneous and nationwide system of schools was organised to reinforce the link between local town and the nation state. Thus, there began to appear the state-controlled and socially-differentiated schooling system. A set of educational and economic transformations began to happen (Hamilton, 1989). Within schools, pedagogic changes occurred gradually.
communication, upon which the further prosecution of science, and the business of
active life, almost entirely depend”. The intention of this idea was to organise
students’ access to the “tools and engines of the intellect – study techniques that
would be useful not only in the remainder of their student days but also in the
remainder of their lives” (Hamilton, 1989, p. 86).

Despite these organisational considerations theories of teaching have been built upon
the pedagogical premise that “the unit in education is not the school, or the class, but
the single pupil” (Hamilton, 1989, p. 113). However, the history of successful
pedagogic innovation is part of broad historical changes in school organisation based
on “the gradual extension of humankind’s capacity to transform its own social,
psychological and material circumstances” (Hamilton, 1989, p. 151). New modes of
organising schools embrace “new visions of society, new images of teaching and
learning, new conceptions of educational management” (Hamilton, 1989, p. 57). For
example, the ‘place-taking’ pedagogy fitted with the then dominant view that “every
person occupied a different ‘rank’ on the social ‘ladder’” (Hamilton, 1989, p. 98).
The organisational restructuring of the pedagogic ladder into a pedagogical tree was
due to the idea of combining individuals into classes of “very nearly equal ability”

Simultaneous instruction was an organisationally significant innovation, being an
improvement on individual and successive instruction. Organisationally it meant that
the ‘mind’ of every student would be always under the control of the teacher in order
to make all the students benefit from the instruction (Hamilton, 1989). Likewise class
teaching was organised to “economise time and labour and [to] utilise the forces
which are found inseparable from the group, but there was also a danger that class
teaching would ‘sink’ the individual in the group” (Hamilton, 1989, p. 113). A
potential means to deal with the issue was to reorganise the curriculum. Here
‘curriculum’ means the whole multi-year course which is followed by students
(Hamilton, 1989). Included in it are all the different ingredients in an educational
course, showing both structural completeness and chronological comprehensiveness:
“‘disciplina’ which means structural coherence; and ‘ordo’ which means internal
sequencing” (Hamilton, 1989, p. 45). Reorganising the curriculum was based on the
view that ‘normal’ boys and girls would follow the core curriculum, while
individualised remedial methods would be organised occasionally to bring the “different members of the class into line [so that all could] participate profitably in the class work” (Holmes cited in Hamilton, 1989, p. 135). A flaw in hyper-individualisation is that “if the organisation of a school was subordinated to the needs of every pupil, then the school’s overall ‘mechanical excellence’ could be jeopardised” (Hamilton, 1989, p. 133). Such an evident loss of efficiency might be counteracted by greater pupil satisfaction and improved school retention rates.12

Organisational changes in schools are closely linked to and regulated by economic changes. Therefore, the relationship between school (education) and society (production) might be integrated into or separated from each other. This complicated relationship provides a stimulus to further explore the external sources and impetus of organisational changes in schools. The development of schooling13 cannot be separated from that of the society. Changes occur in different dimensions within schools and beyond. As Hamilton (1989) argues changes outside the school system provide the sources and backgrounds for organisational changes in schools. To varying degrees schooling is in, of and for society. In other words, schooling – education – has various relationships with society – production. Education and production develop hand in hand, and sometimes condition each other. Thus, an exploration of these relationships can help better understand the organisational changes in schools.

12 Four waves of organisational innovation can be differentiated: first, the advancement of ‘oral’ instruction as a means of meeting the new civilising circumstances of the common schools of the 1830s and 1840s. Secondly, the integration of the common school recitation into the streamlining (or mass production) practices of graded school systems. Thirdly, the weakening of the class recitation in the 1880s and 1890s under the impact of an alliance between social-Darwinian individualism and unwanted mass social behaviour. And finally, the re-establishment (and recasting) of the recitation in response to early 20th century notions about social adjustment and economic productivity (Hamilton, 1989, p. 139).

13 According to Macdonald (2005, pp. 38-40), there is a connection between English schools and the economy of the time. Before nineteenth century, most schools were financed by churches. The main purpose of such schooling was indoctrination. By the end of eighteenth century, Sunday schools and ragged schools were spreading across the land. By the mid-nineteenth century, schools were firmly established as places to ‘train up the lower classes in habits of industry’, as well as in those habits of piety. Religious instruction was being subordinated to industrial training, but the transition was gradual. Schools were preparing the poor for industrial work through a settled system of teaching. By the late nineteenth century, attention had manifestly shifted from the sacred to the profane: from church to factory. Free schools were by then an adjunct of industry. The major development of industrial schooling was compulsory school attendance. If industry needs a workforce with basic training, it could be argued that all young people who would be in the workforce should be compelled to have that training. Compulsory schooling meant state schooling, which were largely funded by the state and in practice controlled by the Government of the day.
2.3 Relationship between education and production

Schools may well *legitimise* values and attitudes relevant to the mode of production (Bernstein, 1977). But this does not mean that these are guaranteed to be internalised to form the specific personalities required for production. Schools in their various forms are not necessarily very productive in “creating a docile, deferential and subservient work force, [by] disciplining its pupils” (Bernstein, 1977, p. 188). While education is dependent upon production it also possesses independence or relative autonomy in constituting educational codes (Bernstein, 1977). There exist both correspondences and contradictions between education and production.

2.3.1 Segregation of education and production

The relationship between education and production changes with time and context. The key relationship is the power of the classification between these two categories. Bernstein (1977, p. 188) observes that “where this classification is strong, then the principles, contexts and possibilities of education are not integrated with the context, processes and possibilities of production”. Where it is weak, then integration occurs.

The concept *classification* refers to “the principle of the relationships between categories whether these categories are agencies (schools of various levels), agents (teachers) or acquirers (students)” (Bernstein, 1977, p. 176). Various forms of power help to reproduce the particular relationships between the various categories. The teachers and pupils are involved in “a relationship of transmission and acquisition, whether this is unilateral or reciprocal” (Bernstein, 1977, p. 176). Classification represents something basic about the relationships between the categories which produce the organisational context of the school. The positional structure of a school refers to the relationships between the school’s fundamental categories, that is, between teachers and between acquirers (Bernstein, 1977). If the relationships between categories are weakly classified, then the relationships between agents are “less sharply distinguished, there is reduced insulation between functions, and agents are more interchangeable between categories” (Bernstein, 1977, p. 182). The positional structure shows the form of the relationship between teachers: “whether
teachers are [organised] into discrete units on the basis of their subject (strong classification) or whether the [organisation] of teachers is defined by some principle which integrates and subordinates subjects (weak classification)” (Bernstein, 1977, p. 178). The organisation of students can be done in the same way. The stronger the rules of exclusion, the stronger the classification of students; the weaker the rules, the weaker the classification.

When the classification is strong, production (work) and education (knowledge) are “insulated from each other” (Bernstein, 1977, p. 188). There is an organisational separation between production (dominating power) and education (dominating control) so that production regulates education. This is based on the belief that education is “for ‘life’, for the ‘mind’, for ‘leisure’, for the development of the ‘self’” (Bernstein, 1977, p. 188). Therefore, the rules of the classification between education and production become essential in the exploration of their organisational relationship.

Education is relatively autonomous in constituting its educational codes. These are determined by the organisational relationship and values of classification and framing. The concept framing refers to the principles of control underlying pedagogic communication (Bernstein, 1977). Framing here refers to the principle which regulates the process of transmission and acquisition. As the principle varies, so do the form and content of the organisational relationship. Different principles of framing regulate the experience of pupils which is realised in the pedagogic relationship. Bernstein (1977, p. 180) notes that “a code is a regulative principle, tacitly acquired, which integrates relevant meanings, the form of their realisation and their evoking contexts”. When a code changes, relevant meanings, appropriate realisations and evoking contexts vary accordingly. Likewise when the classification and framing change, so do relevant meanings, realisations and contexts.

Bernstein (1977, p. 181) states that “inherent in the classification is the distribution of power; inherent in the framing is the principle of control”. Therefore, classification and framing are used to interpret the codes of education and production. Variations in the codes are different historical realisations of the dominant cultural
category. These variations symbolise different means of its reproduction (Bernstein, 1977).

Different classes have different relations to education and production. The ruling class (Governments/industry/workplace authority) are those who “dominate production by deciding its means, contexts and possibilities” (Bernstein, 1977, p. 191). They have a direct relation to production but an indirect relation to education, and cultural reproduction. This relationship shapes the particular implications of the educational code for their experience. They are concerned with “the systemic relation between education and production; maintaining the class basis of the social relations of production” (Bernstein, 1977, p. 191). In other words, they are concerned with maintaining the organisational relationships between the principles of classification and the dominant cultural category. Explicitly, this class “regulates directly the codes of production but are related only indirectly to the codes of education” (Bernstein, 1977, p. 191).

The middle class (school/educator/teacher) are those “who have appropriated access to, and control over, specialised forms of communication” (Bernstein, 1977, p. 191). This class functions as agents of cultural reproduction. It has “a direct relation to cultural reproduction but an indirect relation to production” (Bernstein, 1977, p. 191). Education is not directly in rapport with the material or economic base, although it is affected by such a base. The principle or form of transmission of education is related only indirectly to a material base. The consciousness of the lower class (students) is dominated by the mode of both education and production (Bernstein, 1977).

The relative autonomy of education represented in “the strength of the classification between the category education and the category production” (Bernstein, 1977, p. 188). Where there is a strong classification between education and production, this creates the condition for the relative autonomy of education, and thus “a division of labour between those who are located in production and those who are located in cultural reproduction (education)” (Bernstein, 1977, p. 175). The forms taken by the relative autonomy of education become a distinguishing feature of the mental structures of the agents of symbolic control which is constituted, legitimised and
reproduced by the transmission codes of education which are regulated by these selfsame agents (Bernstein, 1977).

In the dominant cultural category, there is a major reduction in the autonomy of education, but no correspondence between the code of production and the code of education. This raises the question of “whether the integration of education with production (reducing the autonomy of education) is for the purpose of increasing the efficiency of production and so raising the material level of the society, or it is intended to change the social relations of production” (Bernstein, 1977, p. 189).

While the contradiction between the regulation of education and production might fortify the relative autonomy of education, or its relative independence of production, there exist correspondences between the two, that is the integration of education and production. This is significant because it keeps the power indirectly through forms of middle-class control realised in the codes of education (Bernstein, 1977). How is this integration represented in the organisational relationships between education and production? This concept is elaborated upon in the following section.

2.3.2 Integration of education and production

Although segregation between education and production exists, the correspondence between the dominant code of education and the dominant code of production is symbolised in the organisational relationships between education and production. A basic distinction can be made “between societies where education no longer possesses relative autonomy (weak classification of the relations between education and production) and societies where education does possess relative autonomy (strong classification of the relation between education and production)” (Bernstein, 1977, p. 189).

So it is argued that classification and framing regulate meanings and the principle creates and maintains legitimate meanings. From this perspective, power and control are made “substantive in the classification and framing procedures which, in turn, create particular contexts and forms of educational practice which constitute the
particular acts of social relationships of the school” (Bernstein, 1977, p. 177). In organising these relationships, activities and practices, the school represents both power and control.

In 21st century schools, there are a range of codes. Any department of a school with a dominant collection code may well find itself transmitting forms of collection and forms of integrated codes, depending upon the age and the curriculum selection procedures of the school. The more ‘able’ the student is considered, the more likely s/he would be to acquire a collection code, that is, variation within and between codes entails both variation in content and variation in forms of control (Bernstein, 1977).

The organisational relationships between education and production make up both the class and the material basis of education. They create for education the form of its economic or material base. In this case, the mode of production emerges before the mode of education. This relation indicates “the dependency of education upon the mode of production” (Bernstein, 1977, pp. 186-87). The strong classification between the producers and reproducers of knowledge ensures that “the recontextualising of knowledge, that is, the creation of textbooks for schools, is carried out by reproducers, not producers” (Bernstein, 1977, p. 186). Thus, the stronger the systemic relationships of education are, the stronger the grip of the mode of production on the codes of education and the more direct the relation between the material base and the codings of education. When this education dependency is examined more closely, Bernstein (1977, p. 187) notes:

the hierarchical features of the school, the gradual separation and distinctiveness of specialised forms of discourse, the valued attributes of acquirers, were already constituted before entrepreneurial capitalism. Only a small fraction of the output of education bears a direct relation to the mode of production in terms of the appropriateness of skill and disposition. Today the dispositions appropriate to the mode of production are already socially constituted in the family.14

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14 The organisational relationships between agents have two features: horizontal and vertical. The horizontal feature refers to “the relationship between agents who share membership of a common category”, for example, unskilled, skilled, or supervisory. The vertical feature refers to “the relationship between agents who are members of different categories” (Bernstein, 1977, p. 183).

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The organisation of education under conditions of advanced global capitalism has become more complex, and thus even more difficult to explain in detail. However, one can still find at different organisational levels “a broad correspondence, but also apparent contradictions” (Bernstein, 1977, p. 184). There are parallels – and disjunctions – between the controls on the context of production, and controls on the context of acquisition in education. Any parallels in organisational structures and contexts indicate the approximate or relative correspondence between education and production, establish the causal direction and show the form of the material basis of education (Bernstein, 1977). What are the values of the classification and framing of education and what are the corresponding values influencing students’ future occupational position? These questions are discussed in the following section in terms of the concept of vocationalism in schools.

2.4 Vocationalism in Schools

Numerous events characterise the organisational development of schooling. The changes in class, classroom, school and pedagogy constitute the historical processes of organising schooling (Hamilton, 1989). Since school is ‘in’ the society, it has to be, more or less, for the society. However, school is not a place only for knowledge communication; it is also the arena where students gain skills they need for the life after finishing their formal education. In part, schooling finds its ultimate justification in its connection to the workplace. For some in the USA, it is the only justification. Whether it is the work entailed is manual labour or the professions, getting ready for work occupies centre stage wherever educational policy is considered (Kliebard, 1999). Vocational education and training in schools is a potential means to skill students for these purposes. In the following section, three key concepts – manual training, vocational education and vocationalism¹⁵ – are explored both socially and historically.

¹⁵ Donnelly (2009, p. 229) saw vocationalism as “a broader educational position, in which it is argued that provision orientated towards the future occupation of the student could form the basis, or at least part of, general education in a broad, liberal sense. Vocational education is more clearly focused on particular occupations, though evidently inflected through status”.
2.4.1 Manual training in schools

In the USA manual training as a national movement to reform the organisation of schools began in 1876 to shape responses to the “radical transformation of working relationships and the nature of work itself” (Kliebard, 1999, p. 3). Organising manual training as part of the curriculum of public high schools came from the idea that “the conventional curriculum was successful neither in promoting high culture nor in preparing the new generation for the world of industry” (Kliebard, 1999, p. 5). Manual training was considered as “a bridge between the older values and the mechanised forces” (Kliebard, 1999, p. 5). This new curriculum would both inspire the traditional respect for manual labor and prepare graduating students to make their way successfully in the new industrial world. Manual training was considered as a vehicle for “moral regeneration, as pedagogical reform, and as preparation for the workplace in the new industrial society” (Kliebard, 1999, p. 8). It was not regarded as being against cultural education, but as part of general education. Manual training was not a rival to traditional education but complemented it, promising a stronger taste for study and a greater zeal for higher education (Kliebard, 1999). Armstrong (cited in Kliebard, 1999, p. 14) also argued that the idleness of children and their ignorance were vices, which could be “corrected through the sort of manual training”.

In terms of the economic value of manual training, the idea was that “if the schools teach manual training, all pupils will be fitted for useful industries before the age of leaving school for business” (Kliebard, 1999, p. 10). But manual training was postponed until the pupil had reached the age of twelve in order to insure proper attention to “the intellectual branches of school-work, namely, in reading, writing, arithmetic, geography, grammar, and history” (Harris cited in Kliebard, 1999, p. 10). However, postponing manual training until the fifteenth year was “even more desirable because the students’ increased maturity would enhance the effectiveness of the instruction” (Harris cited in Kliebard, 1999, p. 11).

Harris (cited in Kliebard, 1999, p. 11) viewed the school as “providing a special environment free of vicissitudes that characterise the world outside of school”. Although the great majority of children might be destined to earn their living by manual labor, this did not mean that “the school should devote itself to prepare its
students for this work” (Harris cited in Kliebard, 1999, p. 11). However, the motto of some secondary schools was consistently “arts, not trades; instruction, not construction” (Kliebard, 1999, p. 4), which meant the purpose of the school was educative but not for producing goods. Under such circumstances, obstacles to organising the incorporation of manual training into the curriculum in these schools became stronger. Even for economic considerations, there was increasing passionate questioning that “preparation for a future job should be exalted above other factors” (Harris cited in Kliebard, 1999, p. 11). Manual training might be but a small part of the total functions of anyone’s life. Thus, no instruction in manual training should be begun before the age of twelve. Kliebard (1999) argues that manual training’s claim to having the power to correct moral defects and its alleged value as preparation for the workplace were also debatable, despite some in the USA believing that the problems associated with the transformation of the workplace could be addressed in schools.

The strength of manual training as an educational reform resided largely in it looking “backward and forward at the same time – backward to the era of the independent artisan and to the dignity of the work associated with preindustrial [USA], and forward to the society that was being wrought by the new industrialism” (Kliebard, 1999, p. 24). What mattered most for some was that whether manual training preserved the values traditionally treasured, represented and affirmed in school curriculum. Additionally, if manual training meant “completing a liberal education rather than supplanting it” (Kliebard, 1999, p. 26), the curriculum could be reorganised so as to bring direct economic rewards.

Kliebard (1999, p. 24) claims that “manual training combined the symbolic reassurance that traditional values were not being displaced with the utilitarian prospect that it could somehow equip America’s youth with the skills that a new industrial society demanded”. As a reform of curricular organisation, it achieved first respectability, then reputation, and finally acceptance with educational leaders and the public. Although manual training achieved some success both in terms of national visibility and implementation in schools, it “did not provide the job training that the new industrial order required” (Kliebard, 1999, p. 27). As the twentieth
century began, manual training gradually changed into vocational education to meet
the training required in the new workplace.

2.4.2 Vocational education in schools in the USA

Vocational education in the USA began in early twentieth century with an overt
commitment to economic benefits both to the individual and to the nation, to support
the work ethic as well as to reform the school curriculum in line with the needs and
interests of the growing population. However, it was the economic message that
“attracted the crucial support of a coalition of politically powerful interest groups [to]
shift from its value as a moral corrective and a pedagogical reform to practical job
skills” (Kliebard, 1999, p. 25). This changed the basic purposes of schooling in the
USA. Vocational education expanded the chance “to make the curriculum function
much more directly and more visibly in the lives of Americans” (Kliebard, 1999, p.
27). However, the public schools were singled out for particular criticism because 80%
of students in public schools dropped out before high school, and because the poor
had no place to go to but trade schools.

As far as the school curriculum was concerned, it was believed that the public school
curriculum with its traditional emphasis on academic subjects was meeting the needs
of only a small minority of youth. Youth in schools were divided into three distinct
classes: “the abstract-minded and imaginative children, the concrete or hand-minded
children, and the great intermediate class” (Kliebard, 1999, p. 32). In the secondary
school curriculum, the hand-minded were neglected by the existing system of
schools.

As a result of considerable efforts, radical organisational changes occurred in the
USA. Pre-vocational programs and manual training appeared in elementary schools;
academic, commercial, and industrial curricular options were provided; and
vocational guidance became an important concomitant in the drive to vocationalise
the curriculum. Vocational education was claimed to broaden the knowledge of the
principles of the trade. Because the existing schools failed to address the needs of
most students, particularly adolescents between fourteen and sixteen, vocational
education aimed to “augment the capacities of the existing workforce rather than expanding it” (Kliebard, 1999, p. 34). Otherwise, students took “dead-end jobs which had no possibilities for advancement” (Kliebard, 1999, p. 34). What was needed as Kliebard (1999, p. 35) claims was that “traditional education did not need to be supplemented; it needed to be replaced”. Vocational education was not merely established as an alternative to general education; its precepts began to control the curriculum as a whole.

The appropriate age at which vocational education should take place was between fourteen and sixteen, at a time “when the education they received is of advantage so far as it goes, but hardly fits them for actual working places” (Kliebard, 1999, p. 37). It was agreed that this was the appropriate age because these were the years “which are so often spent in idleness and evil associations, when so many form bad habits which not seldom remain with them through life” (Kliebard, 1999, p. 31). This view resulted from the claim that “one in thirty finished high school, but the public schools were providing virtually nothing suitable for this group” (Kliebard, 1999, p. 32). However, labour was wary of the possibility that “large-scale vocational training in schools would have the effect of flooding the labour market with cheap labour” (Kliebard, 1999, p. 37). Restricting as much as possible the age at which such training would take place would serve to alleviate this issue.16

Implementing organisational changes in public schools was problematic for several reasons. It was not clear what particular kinds of trades could be successfully taught in schools and who could teach them. School teachers were generally considered to be too academically oriented to be entrusted with trade training. There were differences in orientation and outlook between school personnel and teachers of vocational skills. More pressing was the problem of who would finance what promised to be a very expensive reform (Kliebard, 1999).

16 What is the purpose of schooling? One view is to take “school as a factory and the curriculum as a production process, school children became raw material and the teacher the overseer of the production. School administrators, ‘educational engineers’ assessed the quality of the raw material and determining the best use” (Kliebard, 1999, p. 53). A principle that became central to the process of schooling in the USA in the twentieth century was: “education is primarily for adult life, not for child life. Its fundamental responsibility is to prepare for the fifty years of adulthood, [but] not for the twenty years of childhood and youth” (Bobbitt cited in Kliebard, 1999, p. 53). The curriculum became the mechanism by which the crude raw material of childhood was transformed into a fully-functioning adult.
A fundamental change in the organisation of vocational education required generous government support (Kliebard, 1999, p. 42), since manual training required uncommon tools, equipment, space, which add considerable costs to school programs. Additionally, a student constituency had to be identified; competent teachers and supervisors had to be employed; and special facilities and equipment had to be bought. These costs had to be justified in terms of benefits to students in classrooms. Thus, influential interest groups joined together around the reform and even better, in some cases, took the initiative to finance the reform (Kliebard, 1999). Due to the success of the advocates in lobbying federal ‘aid’ for vocational education, ‘political’ opposition to federal financing of industrial education was overcome (Kliebard, 1999).

Within schools, organisational changes also occurred. The curriculum was reorganised so that students could leave school for work or training one-half day during the week “without detriment to their general standing and scholarship” (Kliebard, 1999, p. 64). Once the curriculum and its timetable were organised, and public reaction was favourable, then school leaders felt “compelled to incorporate that change in the public schools” (Kliebard, 1999, p. 68). Throughout the 1880s, resolutions were made to introduce vocational education into high schools but did not succeed then. There was an agreement that manual training has been proved to be conducive to good order and discipline, encouraged a taste for manual labour at an early age and retained children from one to three years longer in the schools. However, there still existed a view that schools were not for the purpose of trade training, as they were “not established for the purpose of teaching students how to make a living but to teach them how to live; they are not to teach trades, but to enhance a desire for education” (Kliebard, 1999, p. 68).

The impetus for a major innovation in curriculum organisation was provided by non-school agencies initiating programs at minimal cost. By 1900, thirteen individual and uncoordinated “industrial training rooms” were scattered throughout the Milwaukee public school system (Kliebard, 1999). The introduction of vocational education had the effect of differentiating the curriculum along the lines of probable destination, that is creating divisions between those predestined for university versus job. This was contrary to the view that “manual training was a subject worthy of every young
boy’s study” (Kliebard, 1999, p. 75). So the curriculum was organised to provide the four-year courses for those who were believed to be university bound, while the three-year courses were more likely to be taken by pupils who were presumed to enter the job market directly from the high school. A bifurcated system between academic and vocational education was organised. In Bernstein’s (1977) terms, the former separated education and production, while the latter integrated them.

Introducing manual training was expected to increase the percentage of boys attending schools. However, slow progress through the grades and dropping out of school early continued to be dual problems. The bifurcation was reinforced but the completion of these three-year courses did not mean that a student earned a high school diploma. Diplomas were granted only to those pupils who finished a four-year course of instruction, that is university bound graduates. At the time the absence of foreign language studies in the vocational curriculum also “posed obstacles to any student who might seek admission to the university” (Kliebard, 1999, p. 72). An important recommendation by the principals of the East and West Side schools in Milwaukee was to extend the studies of the manual training course to four years due to the defects of the three-year course. This was because cutting off this group of students from entrance to college proved to be troublesome.

The bifurcated curriculum met with strong objections. For instance, Dewey (cited in Kliebard, 1999, p. 233) argued that “the source of the problem was the wall that had been erected between academic and vocational studies, between the theoretical and the practical, between thinking and doing”. This was because many vocational students were being denied reasonable access to the intellectual resources of their culture, while students on the academic side of the curriculum were being denied the opportunity to experience the integral connection between thought and action, education and production.

In implementing these organisational reforms, there was the recurring problem of financing the organisation of vocational education. Innovations in the organisation of education of the scope of manual training brought with them considerable new expenditures but public schools did not have much money to spare. Space was a particularly formidable obstacle, with pupils entering the schools in ever increasing
numbers and staying for longer periods of time. Due to these issues, some complaints were voiced as to “whether the public was getting results commensurate with the money being put into manual training” (Kliebard, 1999, p. 86). The complainers insisted that an innovative curriculum should “train the ‘goose’ to waddle and teach the ‘eagle’ to soar” (Kliebard, 1999, p. 89) – that is to separate rather than integrate all students’ understanding of education and production as proposed by Dewey (2002). They claimed that the high schools provided “neither good preparation for the university nor adequate training for skilled occupations” (Kliebard, 1999, p. 86). By 1915, the opposition to vocational education turned overt. It was based mainly on practical and financial rather than political grounds. It was not acceptable to the tax-payers to add to public schools the expense of establishing and maintaining trade schools. While the desire to undertake vocational training was strong, “financial considerations stood in the way” (Kliebard, 1999, p. 91).

To manage these issues and further organisational reform, a distinct and separate system of high school education was implemented, that is, academic studies would be the fare for those who were destined to ‘soar’, while vocational training would be provided for those whose lot it was to ‘waddle’ (Kliebard, 1999). However, school officials tried to avoid a clear dichotomy between academic and vocational education, so academic courses such as German, French, Spanish, civics, and history were organised for inclusion in the vocational curriculum. All high school students were required to attend classes in English. Students could elect to earn either a trade diploma or a high school diploma. However, the organisational separation between academic and vocational education widened as the latter became more entrenched in schools in the USA (Kliebard, 1999).

With the development of the curriculum, the problem of organising teacher professional development became evident. When qualified teachers could not be found to teach a specific trade, someone experienced in the trade was hired and the

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17 Dewey (2002, pp. 358-359) states that it is necessary to define the meaning of vocation with some fullness in order to avoid the impression that an education which centers about it is narrowly practical, if not merely pecuniary. A vocation means nothing but such a direction of life activities as renders them perceptibly significant to a person, because of the consequences then accomplish, and also significant to his associates. The opposite of a career is neither leisure nor culture, but aimless, capriciousness, and the absence of cumulative achievement in experience. Occupation is a concrete term for continuity. It includes the development of artistic capacity of any kind, of special scientific ability, of effective citizenship, as well as professional and business occupations.
instructional aspects of the subject were developed as the course proceeded (Kliebard, 1999). Eventually special training was provided for this new type of vocational or trade teacher. An ordinary school teacher did not know much about industry, and the skilled worker presumably did not know how to teach. Moreover, industry was not enthusiastic about the schedule that students spent one week in school and the next week in the factory, because the students were still being instructed by the traditional high school methods. The new type of trade teacher was to be “skilled workers who had taken short course for [training] teachers rather than enduring a long course of professional training” (Kliebard, 1999, p. 107).

The manual training program began to be “more sharply distinguishable from the academic program” (Kliebard, 1999, p. 104). This was because manual training courses allowed more organisational flexibility to meet the desires of individual students and industry demands. In other words, the manual training course could be “more or less academic, and more or less trade oriented” (Kliebard, 1999, p. 104). However, the academic side of the curriculum was gradually losing ground, as vocationalism became “the controlling purpose of schooling”, and an educational ideal (Kliebard, 1999, p. 121).

2.4.3 Vocationalism

Vocationalism refers to “the educational ideal that stems from the application of the precepts and demands of business and industry to the curriculum as a whole” (Kliebard, 1999, p. 120). In teaching vocational skills in schools, vocationalism embodies a vision of what education is for, subsuming general education, and advocating the standardisation of work requirements to meet the new industrial order.

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18 A most difficult task of organisational change was developing the vocational school for the fourteen- to sixteen-year-old ‘permit student’, that is, students who had left full-time school and enrolled in part-time vocational programs. Moreover, these schools were organised to be strongly gender specific, as Kliebard (1999, p. 109) observes girls were taught to prepare “tasty and economical dishes”, what constituted good nutrition, and how to shop wisely. They were taught to sew, judge the quality of goods, acquire ‘good’ taste in color and design, and select suitable goods in personal dress and in the furnishing and decorating of the home. Vocational schools organised more options for boys who could pursue either a high school diploma or a trade diploma. For girls, the options were somewhat more limited, narrowly focused on a few women’s occupation. The worst of these schools was that no diploma was awarded when a girl completed her training there (Kliebard, 1999).
Vocationalism drew inspiration from the new industrial workplace, representing an educational ideal tied particularly to occupational competence.19

Vocationalism applied the conceptual apparatus associated with business and industry to the organisation of schooling. In this context, schooling was conceived and understood in terms of “raw material and finished products, gains and losses, inputs and outputs, productive and unproductive labour, elimination of waste, return on investment, precise production goals, and of course, the bottom line” (Kliebard, 1999, p. 121). The ideals and criteria that governed industrial production were transferred metaphorically to schooling, and drove the ways in which teaching and learning, the curriculum, and the process of education were organised. Vocationalism rejected some of the claims made by early proponents of manual training as to its universal benefits. Advocates of vocational education pressed for education to be “directed toward specific skills needed in the workplace rather than general vocational training” (Kliebard, 1999, p. 123). Supposedly, society would generally be improved by each individual efficiently performing the specialised tasks that society demanded.

A pedagogical problem with this view was the actual extent to which the curriculum ought to be organised differently according to the characteristics of school children and their probable destinations. The creation of vocational training courses led to the organisation of separate governing and administrative structures for general education on the one side and vocational education on the other. Organisationally, the responsibility for formulating and implementing educational policy in vocational education was “transferred to interest groups outside of education” (Kliebard, 1999, p. 126).20

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19 Under vocationalism, the needs of commerce and industry were the principal driving force, and academic subjects were reorganised in order to meet the demands of the labour market. The subject of English became infused with writing job applications and preparing resumes; mathematics became business arithmetic. Because literature, physics, geometry, and a foreign language could not demonstrate their relationship to the demands of commerce and industry, they were relegated to a ritual status. Vocationalism made economic well-being “the all-consuming purpose of education” (Kliebard, 1999, p. 121).

20 The aim of schooling in the USA was “to keep youth under educative influence for a longer time rather than to induct them prematurely into the demands of the workplace” (Kliebard, 1999, p. 126). Vocational education gave “the power of social predestination, by means of narrowing trade-training to fallible men no matter how well-intentioned they may be” (Kliebard, 1999, p. 127). However, the
Vocationalism seriously underestimated the swiftness of technological advances and the changing nature of the labour market, as well as the effects of the division of labour on work. The increasing specialisation in industrial labour and the assembly line had had “a major de-skilling effect in the workplace, and this reduced sharply the need for extensive vocational training in the USA” (Kliebard, 1999, p. 137). The institution of apprenticeship was waning, because an extended period of apprenticeship training was no longer needed to enter the industrial workforce, indicating “extended vocational training in schools was just as pointless” (Kliebard, 1999, p. 138). The significant changes in organising job training were evident in commercial education. Commercial subjects were conspicuously absent from the provisions of some schools. However, the shift in the nature of labour markets made commercial employment and commercial courses of study “an ever more popular option for high school students, particularly girls” (Kliebard, 1999, p. 138). The rapid expansion of office jobs in the early twentieth century workplace opened up new opportunities for women. As a result, private commercial business schools were booming.

The appeal of an educational reform that “on the one hand promised direct and immediate economic benefits and on the other offered to make American schools more satisfying or at least more tolerable to the swelling school population” was too alluring to the American public to be denied (Kliebard, 1999, p. 141). Vocationalism became incorporated into what was in effect a new national education policy.

Due to some defects of the education system, further reform in schools made reorganising secondary education an imperative. A reorganisation of the functions of schooling, including a broadening of the curriculum beyond the traditional subject boundaries was explored. Because the study of academic subjects was a form of

strict organisational separation of general education from vocational education only served to make vocational education all the more constricted and reinforce that process. Young (cited in Kliebard, 1999, p. 128) argues that “vocational training shall not be a preparation for life which reduces the human being to the level of an automatic mechanism”. It was objected strongly that industrial training of girls was limited almost entirely to cooking and sewing. Girls are taught to sew but not to earn a living. Vocational education for boys was being aimed specifically and directly at the job market; vocational education for girls was being geared largely to non-remunerative work (Kliebard, 1999).
specialised preparation for the professions, training for factory labour claimed the same status by taking an important place in the school curriculum (Kliebard, 1999).

The aim of secondary education became “nothing less than getting youth ready to perform in the most efficient manner possible in their health activities, leisure activities, ethical behaviour, as members of families, as citizens, and of course, as workers” (Kliebard, 1999, p. 145). What secondary education was all about was to make qualified persons out of the students. Subjects like history, physics, mathematics, music and English were reorganised to demonstrate their functional efficiency in terms of meeting the aims of vocationalism (Kliebard, 1999). There existed different barriers to organisational changes in schools, but a key obstacle came from the public’s reluctance to pay for school reform. The national leaders of the USA put their imprimatur on the need for organisational change, then crucial public support was marshalled. University entrance requirements represented a major obstacle to the realisation of organisational change and the reform of the secondary school curriculum. High schools were no longer controlled by universities, so the Senior Secondary curriculum could be reorganised to address the actual needs of larger numbers of students. Academic study was seen as “having little value other than preparation for admission to college” (Kliebard, 1999, p. 155). Kliebard (1999, p. 162) observes a key concern, namely that if universities “were not imposing their requirements on the high school curriculum, principals would go even further than they already had in the direction of vocationalising the curriculum”.

It was believed that young adults could be classified in terms of their predicted social and occupational roles, and then trained directly for successful performance in those roles. If children were indeed to be regarded as ‘raw material’, it made perfect sense “to determine as scientifically as possible exactly what the raw material was good for” (Kliebard, 1999, p. 163). The position that “a worker unsuited to the demands of a given occupational role was a source of great waste [meant that] schools had to undertake the responsibility for matching individual capacities with ultimate social

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21 School surveys were conducted by educational leaders who were considered to have a ‘scientific’ outlook, and became a potent vehicle for spreading a particular educational ideology and translating that ideology into scientifically efficient school practice. The surveys measured the achievement of students and the costs of instruction, then determined “which practices were apparently most effective, least costly, and therefore most efficient” (Kliebard, 1999, p. 153).
roles and for the differentiated training that would be required to perform successfully in those roles” (Kliebard, 1999, p. 163). This had to be supplemented with the critical support of a curriculum deliberately designed to facilitate it.

In the difficult context of economic crisis, the Civilian Conservation Corps (CCC) came on board with the idea of addressing the unemployment problem by bringing unemployed youth into conservation work and healthful surroundings (Kliebard, 1999). The CCC aimed at reducing the army of unemployed youth, by bringing them into favourable surroundings under beneficent supervision and providing a much needed public service in the area of conservation. The CCC educational program was regarded as presenting “new ways of bridging the gap between school and job” (Marsh cited in Kliebard, 1999, p. 187), that is by integrating education and production. This program set aside ten hours a week for vocational training. Unlike programs of school-based vocational training, considerable opportunity existed for the enrollees to practise their skills in the field. Among the CCC trainees, only 6 percent had had any vocational training in public schools. CCC enrollees were overwhelmingly high school dropouts. They came away with “a favourable impression of the schooling they had received” (Kliebard, 1999, p. 187). Creating jobs for youth could be secured if job training was combined with actual work experience, with the public schools expected to coordinate school work with actual job experience. This plan relied heavily on “the ingenuity of public school officials” (Kliebard, 1999, p. 193).

Russell and Associates (cited in Kliebard, 1999, p. 199) notes that “the concept behind the program of vocational education would segregate the young people who are to become industrial workers from those who are to go into the professions and other scholarly pursuits”. This criticism was extended to regular high schools where “there seems to be a deliberate attempt to keep the vocational work as separate as possible from the other phases of the educational program” (Russell & Associates cited in Kliebard, 1999, p. 199).

A campaign to obtain further US federal support arose because the additional appropriations for vocational education created a dilemma for the States. With States unable to maintain their general education expenditures, and with future federal
support for vocational education uncertain, States were reluctant to expend further money for vocational programs.22

Vocationalism and social efficiency had always been integrally linked. The effort to prepare young workers for the demands of the workplace had become intertwined with the effort to adjust future citizens to their socio-economic conditions. The implication was that with the exception of the 20 percent presumed to be university bound, all high school students should be directed toward vocational training. With the exception of the university entrance function, most Americans found it difficult “to visualise any other purpose to secondary education besides getting ready for work” (Kliebard, 1999, p. 205). Vocational education entailed long periods of training, close attention to the qualifications and credentials of vocational teachers and their supervisors, and very considerable leeway for local school authorities to shape the programs. However, these cornerstones of vocational education policy were inimical to dealing with economic crises which affected the growth of labour market (Kliebard, 1999).23 The economic depression had the effect of forcing youth

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22 When reporting on the expenditure of federal vocational funds the report, entitled Vocational Education, was criticised for being limited to largely favourable interpretations; the report tended “to emphasise the favourable aspects of the program and to minimise the unfavourable aspects” (Russell et al cited in Kliebard, 1999, p. 199). The report seemed to be conceived “as propaganda for the program rather than a dispassionate and scientific analysis of the results accomplished” (Russell et al cited in Kliebard, 1999, p. 199). Its claim that much of the data as reported were so restricted, thus, they could not be easily interpreted. The open, semi-official criticism of vocational education had been virtually unprecedented.

Events on the world stage accelerated the reconstruction of the industrial capacity of the USA, and thus requiring new and extensive industrial training. Massive government expenditures innovation in vocational training was brought an end due to the need to fund the military defence of the USA during World War II. Training workers for new defense industries became an urgent national priority. Public vocational schools were enlisted in the training of workers for the aeronautical industries. Highly skilled jobs were broken down into semiskilled operations so that a minimum of training was entailed. With further redefinition of skilled jobs, training periods were reduced (Kliebard, 1999, p. 201). Vocational training was directed toward special programs tied to the war effort. Enrolments in regular vocational programs dropped. The availability of high-paying jobs in defense industries was an inducement for youth to leave school. Some vocational classes were cancelled. Vocational education had demonstrated its worth in terms of the national interest (Kliebard, 1999, p. 203).

23 Evaluations of vocational education in the USA remained sparse (Kliebard, 1999, p. 211). Few evaluations could be found about that reported the extent to which secondary school students actually enrolled in the vocational courses that were being offered, and whether those who did enrol actually benefited from this training. No study definitively answered questions of such complexity, indicating that a comprehensive and most carefully designed evaluation was needed to examine the histories of youth training in schools. One study focused on the extent to which youth trained under provisions of the US Smith-Hughes Act benefited from their training in terms of participation in the job market and increased income (Kliebard, 1999, p. 212). The findings were predominantly negative, but there were some positive outcomes. Youth receiving the Smith-Hughes vocational training did not enjoy a
to seek jobs outside of their chosen field, which meant that “vocational education is no cure for unemployment” (Menefee, 1942 cited in Kliebard, 1999, p. 217).

Some difficulties with vocational training transcend economic crises. It is difficult to imagine public schools even in the best of times keeping up with the rapid technological change that occurs in modern industrial societies. In addition to outmoded equipment and machinery, the problem of obsolescence manifested itself in the ability of teachers in vocational programs to “keep abreast of the shifting skills that a given job requires” (Kliebard, 1999, p. 217) as they were removed from the workplace.

The sheer number of industrial as well as clerical occupations in a complex industrial society is “enormous, compared with the few occupations that schools can reasonably be expected to incorporate into their curriculum” (Kliebard, 1999, p. 218). A public high school, even one dedicated to vocational training, simply cannot train students specifically for more than a tiny fraction of the occupations that exist in the labour market. Developing desirable attitudes toward work irrespective of specific job training is highly questionable.

material advantage over their untrained counterparts. The trained youth maintained a small advantage in terms of entry into the workforce over trained workers who were still in the labor market (Kliebard, 1999, p. 212).

As far as income is concerned, young men with Smith-Hughes training and twelve years of schooling earned $18.10 per week, while those without training and ten or eleven years of schooling to the ninth grade earned an average of $19.60 per week. Additional years in the workforce as a result of quitting school proved to be a greater advantage in weekly earnings than completing vocational training in a school setting. There appeared to be a problem with regard to relationship between specific job training and finding work in that particular field of training (Kliebard, 1999, p. 213).

According to another study, Menefee (cited in Kliebard, 1999, p. 217) notes that “youth without any Smith-Hughes training fared almost as well in terms of total employment as did trained youth. This suggests that nonvocational education had about as much value as vocational training for the youth”. Additionally, youth enrolled in vocational training programs were mistakenly judged as somehow inferior to other youth in terms of ability or social status. Moreover, the vocational training itself was inadequate due to insufficient vocational counselling. Even so vocationalists sought longer and more comprehensive programs of industrial training (Kliebard, 1999, p. 217). In this study, precise data with respect to the question of whether the training was actually related to labor-market requirement were unavailable. There was some evidence that “the types of training offered in the Smith-Hughes schools did not always correspond closely with labour-market needs” (Menefee cited in Kliebard, 1999, p. 217). Another problem was that too many workers were being trained in certain occupations while others were being ignored.
In choosing public schools as the site for industrial training, vocationalists were “undertaking to accomplish a deceptively complex and difficult task” (Kliebard, 1999, p. 218). A substantial part of the failure of vocational education in the instrumental sense stemmed from the fact that the kind of knowledge vocational teachers sought to instil cannot readily be conveyed in a school setting. Skills that would presumably find their expression on a factory floor were taught in schools and classrooms that were both geographically and conceptually removed from the scene of action. Guiding the novice in the actual performance of a task is just the kind of knowledge that schools are structurally ill-equipped to provide (Kliebard, 1999). Schools have the ability in teaching the young to manipulate symbols and in explaining how things work but not in the skilful performance that the job market requires. Knowledge is no substitute for the actual skills.

The attractiveness of vocational education as an imagined solution to the education problem has been a block to formulating other kinds of reforms. Policy makers have consistently “reasserted the potential of schooling, rather than face its limitations” (Grubb & Lazerson cited in Kliebard, 1999, p. 220). The idea that schools can successfully convey the skills necessary for survival in the industrial workplace is a recurring theme of policy-makers. Whether such skills need to be conveyed is not the issue. The key issue is whether those skills can be adequately imparted in a setting other than the public school, such as the workplace itself because to a large extent learning the skills of a trade takes place on the job.

Vocationalism suffered from “a cramped social vision” (Kliebard, 1999, p. 228). Vocationalists directed their criticisms not at the way workers were being made appendages to their machines and at the inequality of opportunity in the job market, but at schools for being inadequately attuned to the workplace (Kliebard, 1999).

The principal effect of what passes for policy-making generally and educational policy-making in particular lies in its connection to the status and interests of various constituent groups (Kliebard, 1999, p. 229). Policy statements are expressions of interests and messages of status. Policy initiatives and curricular changes are signals to certain groups that their values and vital concerns have been officially sanctioned and, at least nominally, are being addressed. In other words, policy is a signal not just
of respect for the interests of one group but of the dominance of that group over others. That is, the interests of one group are implicitly declared to be superior to those of another.

In certain instances of vocational education, the structural limitations of the school as a training site were minimal or reasonably well overcome. Even so, industrial education dealt with a world that was remote not only in terms of time but in terms of the experience of the youth being served. In contrast, agricultural education in rural schools dealt with the world that the students actually inhabited outside of school. The vocational agriculture that was taught in schools bore an immediate relevance to the work on the farm that students experienced on a daily basis. When education is tied closely to one’s ‘predicted’ occupational or social role as distinct from one’s present reality, the remoteness of school from life is accentuated rather than diminished. It is not that schools cannot teach skills but more that only certain skills lend themselves to teaching in a school setting. For example, the clerical skills students learned in school required relatively inexpensive infrastructure that schools can easily accumulate and translate into better job prospects (Kliebard, 1999). An important factor in the success of Goldey College, a private school in the USA, in moving students from school to work was its “well-established employment bureau” (Kliebard, 1999, p. 223).

The problem with vocational education was that it became “an instrument of perpetuating unchanged the existing order of society instead of operating as a means of its transformation” (Dewey cited in Kliebard, 1999, p. 236). The question of whether vocational education actually provides the skills needed in the modern workplace remains unresolved even today. From the history of vocationalism it seems that from the “accomplishments and disappointments of vocational education and the value of schooling in occupational achievement” (Kliebard, 1999, p. 211), no single factor was decisive. Even so, work with its stresses and constraints as well as

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24 Goldey College’s very survival depended on its ability to find jobs for its graduates, and its employment bureau established and maintained the necessary connections with the chief employers in the state. This provided students with the prospect of moving seamlessly into jobs. The public schools had no agency of this sort. Most public schools seldom formed a relationship with business or industry as private schools then did. However, a close relationship between public schools and industry did evolve with these schools’ becoming subservient to industrial interests.
its compensations, shapes lives and destinies of the young adults. Its relevance to schooling is not limited to securing a smooth transition to the workplace. Schools and classrooms do not simply reflect the world outside of school. Schools have a responsibility to “create an idealised social community” (Kliebard, 1999, p. 236). Even so, Governments continue to further the reforms to realise the assumed potential of VETiS, with promotion of organisational changes being an important means. In the following section, a specific organisational model is investigated and elaborated because of its potential implications for organisational changes in schools through VETiS.

2.5 Conclusion

This exploratory case study of organisational changes in Senior Learning, using publicly accessible communications brings together concepts that deal with the history of organisational changes in schools. The continuing debate over the relationship between education and production (learning and earning) is a central driver shaping the engagement with vocationalism in schools nationally and internationally.

Organisational innovations in Senior Learning are a complicated and continuous process that can be analysed from different perspectives by using various concepts. This Chapter has explored a series of important concepts that form the theoretical framework for this thesis, including Zäpfel & Wasner’s (2002) hub-and-spoke organisational mode, Hamilton’s (1989) concepts of ‘class’, ‘classroom’, ‘school’ and ‘pedagogy’; Bernstein’s (1977) notions of integration and segregation of education and production; Kliebard’s (1999) ideas of manual training, vocational education and vocationalism. Hamilton’s (1989) concepts provide the background, history and sources for organisational innovations within schools, including associated changes in the curriculum – a tool for organising knowledge in schools. Bernstein’s (1977) concepts provide tools for interpreting the relationship between school and work, about how schools do or do not organise connections with the world of production. Kliebard’s (1999) concepts supply an important means for the elaboration of how the Secondary Schools are trying to provide a better transition for young adults by offering more pathways for students and providing professional
development for teachers. As well consideration was given to how groups of school communities might be organised using hub-and-spoke model to engage young adults into the minerals and energy industry.

The data analysis presented in the evidentiary Chapters of this thesis (Chapters 5-9) tests these concepts for their value in interpreting the organisational innovations in QMEA schools through VETiS reforms. The evidence focuses on the questions about VETiS policies, school curricula, teacher professional development, school public communications and student outcomes. The evidence is interpreted in each Chapter by employing these concepts.

This Chapter has provided an account of the theoretical tools used in the evidentiary Chapters to answer questions about the Government policies for organising VETiS; how QMEA schools organise knowledge through curriculum; the teachers professional development; and communication with the public are key questions. What this means for pathways chosen by young adults is a focal question. However, before using these concepts to analyse this evidence, the literature concerning these questions are reviewed to get an overall sense of the research background.
CHAPTER THREE
RE-ORGANISING SCHOOLS FOR WORK-INTEGRATED EDUCATION AND TRAINING: A REVIEW OF RECENT RESEARCH LITERATURE

3.0 Introduction

The main research question addressed by this thesis is what this exploratory case study reveals about the ‘hub-and-spoke’ mode of Secondary School, industry-oriented organisation in terms of Government policies, school curricula, teacher professional learning, school communications and student outcomes. This Chapter develops inductively the concept of ‘hub-and-spoke’ organisational mode of school/industry organisation by reviewing the recent literature about the organisation of school curricula, teacher professional learning, school public communications, re-organising schools and student outcomes. While none of this research explicitly or directly addresses the ‘hub-and-spoke’ mode of Secondary School, industry-oriented organisation, collectively these studies allow us to piece together insights into what it might involve. Vocational education and training in schools (VETiS) is defined as “a program undertaken as part of a student’s Senior Secondary Certificate that provides credit towards a nationally recognised VET qualification” (NCVER, 2008, p. 2). Most VETiS students are aged between 15 and 19 years. VETiS is implemented through “courses that lead to industry recognised qualifications under the Australian Qualifications Framework while at the same time contributing to the standard Year 12 Certificate” (Karmel, 2007a, p. 1). Defining VETiS in this way may seem strange, in particular, when undertaking VETiS subjects or courses is part of the Senior Secondary Certificate, or when VETiS may or may not include structured workplace learning. However, school-based apprenticeships and traineeships always require “formal engagement with the workplace and structured learning, since they involve paid employment and a training contract” (Karmel, 2007a, p. 104). Typically, arrangements for VETiS offer two main options: “students can undertake school-based apprenticeships and traineeships or VET subjects and courses” (NCVER, 2008, p. 2). But while VETiS is “for students in Year 11 and Year 12, occasionally to students in Year 10, there are widespread differences across the various States and
Territories in the delivery of these programs, and the range offered” (Karmel, 2007a, p. 104).

The vocational education and training sector is poorly understood, particularly in relation to the important role it plays in the education of young people (Karmel, 2007b). While apprenticeships are seen as a desirable pathway between school and work, and technical and further education (TAFE) is acknowledged as an alternative to — as much as a pathway to — university, the actual magnitude of its role is not appreciated. A key reason might be that it does not fit neatly in a linear world. For many young people, it is easy to understand the completion of Year 12 and going to university, but pathways involving vocational education and training are less straightforward for them (Karmel, 2007b).

However, the introduction of VETiS has significantly changed Senior Secondary Schooling, which was once called post-compulsory schooling. In 2001, 32.5% of Year 12 completers went directly to university, but this percentage fell to 27.6% in 2004 (Smith, 2004). The reasons for introducing VETiS were to expand “opportunities for Senior Secondary students, and to prepare young people for the workplace of the future” (Anlezark, Karmel & Ong, 2006, p. 13). Specifically, VETiS aims to “provide young people with better links to industry, and more diverse pathways from school to work and further study” (Anlezark, Karmel & Ong, 2006, p. 13). However, the implementation of VETiS is affected by several factors, namely, the policy goals and strategies of Federal and State/Territory Governments; the curriculum knowledge that can be provided in each school; teachers’ professional development; schools’ public communications; and the unpredictable relationship between work and students’ preferred post-school pathways (Smith, 2004).

Therefore, the relationship between education and work poses dilemmas for post-compulsory education. Stanley (2007) studied the key features of early school leavers in NSW and the strategies developed in that State to address their needs. Traditionally, Governments were interested in modifying compulsory schooling to allow students who wanted to leave to have a minimum of the human capital requirements to enter the work force. The unpredictable development and constant change in the youth labour market create difficulties for education systems to
respond to these changing demands. That early school leavers are at a disadvantage in job markets has been used by Governments to support the claim to reform Senior Secondary Schooling for the benefit of these young adults. It is difficult to evaluate education for work, retention strategies, and transition to employment because of the constantly changing youth labour market. VETiS faces a number of challenges, not all of which have been fully investigated. This Chapter explores these and related problems by reviewing the recent research literature.

This Chapter adds to our understanding of the concept of ‘hub-and-spoke model of industry/school organisation’ which is the focus of this exploratory case study of organisational change. In this Chapter the meaning for this concept is developed through an understanding of the reconfiguration affecting school curricula, teacher professional learning, school public communications, organisational change and student outcomes. In this regard, Baehr and Wells have provided a more recent translation of Weber’s (1992, p. 8) classical study, The Protestant Ethic and the Spirit of Capitalism, which echoes that of Parsons (see Chapter Two) but makes a similar point:

If any object can be found for which the use of this term can have any meaning, then it can only be a ‘historical individual’, that is, a complex of configurations in historical reality which we group together conceptually from the point of view of their cultural significance to form a single whole (Weber, 2002, p. 8).

That is to say, this Chapter provides a review of the literature in terms of what the research shows about organising the curriculum, teacher professional learning, school communication, re-organising schools and student outcomes. These are disparate bodies of research, and the purpose of this review is to put these separate

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25 Characteristics of early school leavers: The Consultation Paper of NSW (2007) noted that in NSW the legal school leaving age was 15 in 2007, and that most students reach this age during Year 10. The School Certificate, an end-of-compulsory schooling credential, had been preserved in NSW for all completing Year 10. The Year 10 School Certificate is useful for the employers to evaluate their future employees from NSW and also gives students from NSW a relative advantage in the labour market. There are also some students who withdraw from the School Certificate program before the end of Year 10; most of these have reached age 15. The gender pattern of those leaving before the completion of Year 10 has changed, with more males leaving in the period 1988-2001. However, since 2002 it is nearly half females and half males. A prominent cause for this is poor attainment at school. The overall retention in NSW shows “a small trend upwards in participation from 69.8% of the age cohort in 2000 to 73.2% in 2004” (Stanley, 2007, p. 96).
studies together to add further to the meaning of the concept of ‘hub-and-spoke mode of industry/school organisation’ which is the focus for this thesis. Here it is useful to recall that this is not unlike the procedure used by Weber (1992, p. 9) to develop the concept of the ‘spirit of capitalism,’ albeit this time quoting from Baehr and Wells translations:

A historical concept must be composed from its individual elements, taken from historical reality. It will not be possible to arrive at the ultimate definition of the concept at the outset but only at the conclusion of the investigation. To put it another way, only in the course of the discussion and as the essential outcome will it be shown how that which we understand … should best be formulated. These ‘points of view’ are in turn, not at all the only ones possible with which to analyse the historical phenomena we are considering. What we understand … in terms of what we deem ‘essential’ from our point of view, is by no means the only possible way of understanding it. This is the nature of ‘historical concept-formation’, which for its methodological purposes does not seek to embody historical reality in abstract generic concepts but endeavours to integrate them in concrete configurations, which are always and inevitably individual in character (Weber, 2002, p. 9).

Given the silence in the educational literature on the concept of ‘hub-and-spoke mode of school/industry organisation’ it was impossible for me to define this term when starting my research. In the concluding Chapter to this thesis (Chapter Ten), I provide a model of how this concept is understood based on the theoretical and empirical research reported here. Of course, I understand that my interpretation of this concept is not the only explanation possible, and is itself an outcome of the research reported here:

If, then, we are to determine the object with which our analysis and historical explanations are concerned … then we cannot do this by means of a conceptual ‘definition’ but only by a provisional illustration of what is here meant …. Such an illustration is indeed indispensable for the purpose of understanding the object of the investigation (Weber, 2002, p. 9).

The Chapter reviews a range of related research which is brought together to provide an interpretation of what the concept of ‘hub-and-spoke mode of industry/school organisation’ means in this thesis. This explanation is important for understanding of
the term and for the collection and analysis of the evidence reported in the subsequent Chapters in this thesis (Chapters Five-Nine).

In addition to the literature concerning goals and strategies of Government policies addressed in Chapter One and analysed in Chapter Five, this Chapter reviews the research literature, especially for the period 2006-2010, to explore the current state of knowledge in relation to organisational changes in and through VETiS. To do so, this Chapter reviews the research relating to five main issues. The first section reviews the literature on organising knowledge in and through school curricula. The second section investigates schools’ investment and strategies for teachers’ professional development as part of this re-organisation for VETiS. The third section studies schools’ efforts to organise public communications about VETiS. The following section introduces overarching issues about re-organising schools. The last section investigates students’ choices and preferred pathways after completion of Year 12 as these relate to organising VETiS (see Figure 3.1). By reviewing the recent research literature, this Chapter explores what research has been done and what has been left blank in the field of VETiS. This provided a basis for interpreting the research evidence presented in this thesis, and has helped to refine the research questions presented in Chapter One.

**Figure 3.1 Curriculum, teacher professional development, school communication, organisational change and student outcomes: Scaffolding the literature review**  
(Source: based on an idea by M. Singh)
3.1 Organising knowledge in and through school curricula

This section addresses the question of the ways schools organise the knowledge their students are supposed to learn in and through their school curricula.

Presenting a definition for school curriculum is necessary before reviewing the related literature. Curriculum is defined here as “the specification and sequencing, in terms of content, of the knowledge and skills that a learner is expected to have acquired” (Young, 2008, p. 173). One result of which is that the learner is awarded a Certificate. Schools organise the knowledge their students are supposed to learn through core and/or extra curricula provisions.

Making changes including VETiS offerings in curriculum organisation, the specification, sequence and providers can offer young adults flexibility in the choice of courses, activities and programs. VETiS helps young adults “gain a sense of an achievement and focus as they proceed through their compulsory education and on to a successful lifetime of learning challenge and achievement” (Asher, 2005, p. 69). But VETiS depends on the involvement and commitment of an increasing number of employers to make the education and training of young adults a reality. Flexible curriculum offerings may be characterised by individually negotiated activities that focus on literacy, numeracy, vocational education, life skills and personal development. The young adults undertake contextualised learnings in relation to everyday work and life to develop essential competencies (Harreveld & Singh, 2008).

However, not all schools are progressing at the same rate with flexible provisions for all their students. As with any organisational change some institutions react faster than others, but work-related entitlements are accelerating the rate of organisational change in Senior Secondary Schools (Asher, 2005). A number of the new initiatives require a greater level of employer involvement and support from different groups at the point of delivery. Organising employers, training providers or community group support are vital for delivering VETiS. The current Government emphasis on employability skills is “increasing the demand for employer engagement still further” (Asher, 2005, p. 68). Underpinning Government strategy for VETiS is the need for
Australia to compete in an increasingly global economy and, thus the need for a skilled, motivated and enterprising workforce, and the need is to improve the employability and key skills of young adults by organising improvements in the progression routes and retention rates especially of those who are 16 or older (Asher, 2005). To successfully implement the organisational changes in school curricula, school teachers play an important role. Their involvement in teacher professional learning can enhance their capacity in the implementation of organisational change in knowledge.

3.2 Teacher professional learning for organisational change

How is teacher professional learning for VETiS organised, and how does it contribute to organisational change in Senior Secondary Schools? This is the question that is the focus of the literature reviewed in this section.

3.2.1 Characteristics of teacher professional learning

Professional learning for teachers is recognised as a vital component of organisational learning strategies necessary to enhance the quality of teaching and learning in schools. Researches about teacher professional learning varied with different characteristics and perspectives. As far as VETiS is concerned, school career advisers and their advising practices are very important to students’ choices of courses, activities and programs. Career advisers’ quality and capacity form an important part in teacher professional learning. Dalley-Trim, Alloway, Patterson and Walker (2007) investigated career advisers’ perceptions of VETiS, their advising practices and their views about others’ perceptions of VETiS. The data for this study came from interviews with career advisers in public secondary schools in Queensland, Western Australia and New South Wales. This research shows that career advisers view VETiS in a positive vein on the whole, and that they claimed to advise all students of its merits as a pathway. This is important, because their self-reported positive attitude towards VETiS might lead them to advise young adults about its merits. However, their advising practices differed for different students. They categorised students as academic and non-academic, and advised them
differently. The consequence of streaming students in this way is to lead non-academic students into VETiS while their academic counterparts were advised to be more selective.

Another important aspect of teacher professional learning is the effects of the structural and process features of professional development programs on teachers’ knowledge, practice and efficacy (Ingvarson, Meiers and Beavis, 2005). The aspects of the Australian Government Quality Teacher Programme (AGQTP) were studied, which was designed to update and improve teachers’ skills and understanding, as well as to enhance the status of teaching. The data set for this study included questionnaires completed by 3250 teachers who had participated in eighty individual professional development activities. This research indicates that the most effective programs provided opportunities for teachers to focus on what students were to learn and how to deal with the problems students may have in learning, including opportunities for teachers to examine students’ capabilities for working collaboratively. These programs led teachers to actively reflect on their practices and compare these with high standards of professional practice. The teachers were engaged in identifying what they needed to learn, and in planning the learning experiences that would help them meet those needs. They were also provided time to test new teaching methods and received follow-up support and coaching in their classrooms when they faced problems of implementing changes. This included activities that led teachers to deprivatise their practice and gain feedback about their teaching from colleagues (Ingvarson, Meiers & Beavis, 2005).

A key finding from this research is that high quality professional development is “sustained over time and involves a substantial number of hours” (Ingvarson, Meiers & Beavis, 2005, p. 16). The pre-existing level of support for professional development within a single school had a significant indirect effect on the outcomes of programs. Policy makers and school administrators need to give attention to organising “the conditions that will enable schools to provide fertile ground for professional learning on an ongoing basis and as a routine part of the job” (Ingvarson, Meiers & Beavis, 2005, p. 17). There are no short cuts to organising significant and sustainable change; teacher professional learning is integral to all education and training reforms. Not surprisingly, Ingvarson, Meiers and Beavis (2005, p. 17)
claimed that “money spread thinly, when it comes to professional development is unlikely to produce significant change”.

Developing teachers’ knowledge in professional learning is needed in the context of educational reform to achieve lasting changes. It is argued that reform efforts in the past have often been unsuccessful because they failed to take teachers' existing knowledge, beliefs, and attitudes into account. Teachers' knowledge is conceptualised as action-oriented and person-bound. As it is constructed by teachers in the context of their work, their knowledge integrates experiential knowledge, formal knowledge, and personal beliefs. This study concluded that several strategies are potentially powerful in achieving the lasting changes in teachers’ knowledge: (a) learning in networks, (b) peer coaching, (c) collaborative action research, and (d) the use of case studies (van Driel, Beijaard and Verloop, 2001). Furthermore, Hill and Helme’s (2005) study revealed a number of difficulties that Indigenous students experienced with VETiS. Pedagogical issues were foremost, especially those relating to teachers’ subject knowledge and teaching skills. Some students mentioned teachers’ inability to provide assistance with the literacy, language and numeracy demands of VETiS subjects.

For years the only form of professional development available to teachers was ‘staff development’ or ‘in-service training’, usually consisting of workshops or short-term courses that would offer teachers new information on a particular aspect of their work. This was often the only type of training teachers would receive and was usually unrelated to their work (Villegas-Reimers, 2003). Some ‘guidelines for success’ that can be followed when planning and implementing professional development opportunities for teachers include:

1. to recognise change as being both an individual and an organisational process;
2. to think big, but start small;
3. to work in teams to maintain support;
4. to include procedures for feedback on results;
5. to provide continuous follow-up, support, and pressure;
6. to integrate programmes (Villegas-Reimers, 2003, p. 18)

Currently in the world, most societies are engaged in some form of education and training reform. Some of these reforms are initiated at the national level to be
implemented at the local level. Regardless of the scope of the reform, the relationship between these reforms and teachers’ professional development is a two-way, or reciprocal, relationship (Villegas-Reimers, 2003). Thus, the interplay between school factors and teacher job satisfaction and their influence on students’ educational outcomes was explored by comparing two schools in Cambodia (Lee, 2006). It was found that salary and school management are key factors affecting teachers’ job satisfaction. Some teachers do not regard professional development as an element of their job satisfaction because most of them do not view it as their lifelong career. So teacher professional learning is an important factor in generally affecting career advisers’ perception of VETiS, teachers’ knowledge capacity and knowledge in teaching and teacher job satisfaction.

3.2.2 Strategies for teacher professional development

VETiS requires constant monitoring of teacher professional needs. Teachers engaged in VETiS need professional learning to be specialists in a number of senses. The organisation of teacher networks that draw participants from many different schools may serve as important professional learning communities. Research indicates that “more time for teaching results in more learning for students” (Sadovnik, 2007, p. 143). That is to say when teachers have more time available, they use it to cover the curriculum more extensively or in greater depth, and this produces better learning outcomes. However, the pattern is not invariant, because the impact of resources depends on how the resources are used. It was found that “the

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26 Epstein and Sanders (2006, pp. 81-82) explored the preparation of future teachers and administrators to conduct school, family and community partnerships. Based on a sample of 161 schools, colleges, and departments of education (SCDE) in the United States, the survey examined not only the courses and content presently offered to prospective educators, but also leaders’ perspectives and projections for the future. The findings suggest that SCDE leaders must be active change agents and team builders to guide their institutions to prepare future educators to conduct effective family and community involvement programs and practices.

27 Daly, Moolenaar, Bolivar and Burke (2010) did a research about the role of teachers’ social networks. Social network theory posits that the structure of social relationships may influence the direction, speed, and depth of organisational change and therefore may provide valuable insights in the social forces that may support or constrain reform efforts. The results suggest significant variance within and between schools in terms of reform-related social networks. The findings underline the importance of attending to relational linkages as a complementary strategy to the technical emphasis of reform efforts, as social networks were found to significantly facilitate or constrain reform efforts.
greater teachers’ control over the allocation of resources, the more effectively the resources will be used” (Sadovnik, 2007, p. 143).

Two models for organising teacher professional learning are: the single school-focused model and the university/school partnership model (Young, 2008). The advantage of the school-based model is that “it gives responsibility to [school] and their [teacher] for their own professional development” (Young, 2008, p. 177). However, it does little to encourage research in VETiS, or to promote university/school links. The university/school partnership model aims to take account of the foregoing strengths and weaknesses. The model involves organising a partnership between a university education department and a group of schools. The university education department specialises in the professional educational issues involved in VETiS, and schools are responsible for developing teachers’ specialist knowledge of vocational pedagogy (Young, 2008). However, where little attention is given to organising “the specialist vocational knowledge and skills” (Young, 2008, p. 178) of teachers, it is necessary to organise “a combination of generic pedagogic knowledge acquired in the university and the ad hoc vocationally specific skills that they pick up during their teaching practice” (Young, 2008, pp. 178-9). A problem for this mode of professional learning is that “there may be no experience or history of other departments being involved” in preparing teachers for VETiS (Young, 2008, p. 178). The lack of a tradition of inter-departmental collaboration is likely to be compounded by the way universities are funded for teaching and research, which are usually separate strands. Another challenge is the strength of organisation boundaries between disciplinary fields in the university as well as the historically low status of VETiS as a field for research and teaching.

There are several effective ways for improving teacher professional learning. First, sustained and intensive professional learning is more likely to have an impact than is shorter professional development. Second, to improve professional development, it is more important to focus on the duration, collective participation, and the core

28 The disadvantage of this model is that first, with a substantially new curriculum, few VET teachers are likely to have the appropriate expertise and, if so, only in some vocational fields. Second, those training to become VET teachers would continue to be cut off from the rest of the education community, and would have few opportunities for progression to higher level of professional studies (Young, 2008, p. 177).
features than type. If schools are serious about using professional development as a mechanism to improve teaching, they need to invest in activities that have the characteristics of fostering improvements in teaching. In order to provide useful and effective professional development that has a meaningful effect on teacher learning, foster improvements in classroom practice and improve students outcomes, funds should be focused on providing high-quality professional development experiences. This would require schools and districts either to focus resources on fewer teachers, or to invest sufficient resources so that more teachers can benefit from high-quality professional development (Garet, Porter, Desimone and Yoon, 2001).

There are also significant organisational challenges for teacher education and professional learning. School teachers are involved in the complexities of working in State-level partnerships with emerging industries; transformed industries; local level community partnerships and cross-sectoral articulation activities. It is teachers who must understand and ‘make happen’ the Senior Education and Training (SET) Plans completed by students during Year 10, that is the system for recording young people’s learning for the Queensland Certificate of Education (QCE). So the reform of Senior Learning needs contributions from different sources. Teacher educators and pre-service teachers can function, and may be helped to function, as brokers of their own and others’ learning.

Teacher professional learning is regarded as a vehicle for just schooling outcomes (Bardsley, 2007). Schools and teachers themselves are to be given increased responsibility to ensure that students’ education and welfare needs are met within the community. However, this broader role for teachers as advocates of education justice within a rapidly evolving society requires better resourcing. That means organising better facilities or more teachers per student to reverse the changes that have depleted public school resources. Based on a Queensland’s study of education and training reforms, it was found that teachers, principals and community representatives do look at issues differently and not always with despair. They seek practical

29 For teacher education, there is much to be learned from teachers who are now working with competing knowledges and educational cultures which are the important components of the newly formed Senior Learning. This provides “a challenge for governance in teacher education that is dependent on multi-level leadership across sectors, systems and regulatory bodies” (Harreveld, 2007, p. 286).
alternatives and challenge assumed inevitabilities (Harreveld, 2007). Schools provide initiatives to their teachers for professional development on the one hand, and communicate VETiS information with the public on the other in terms of students’ learning. The literature about this issue is reviewed in the following section.

3.3 VETiS communication: Work-integrated education and training

The literature reviewed in this section focuses on the organisation of schools’ communication to the public about work-integrated learning. Views on the effects of part-time work on school performance are various. Some research show positive effects, but others reveal negative ones.

3.3.1 Views on positive effects of part-time work on school performance

It is agreed that moderate part-time work has a positive effect on school performance. Research shows that some involvement in paid work during adolescence does not necessarily restrict time for homework, school activities, and reading outside of class (Staff and Mortimer, 2007). Taking into account pre-existing grades, aspirations, problem behaviours, and family socioeconomic standing, there was no negative effects of work hours on school performance. Schools increasingly are looking for different models and learning objectives from placements (Asher, 2005). There is also a greater recognition of the need to establish clearer links between the world of work and school to develop wider skills. These skills can be greatly enhanced by effective preparation and debriefing, and by the work placement experience itself.

This research also shows that when the percentage of ‘steady’ workers is high, the percentage of college degree recipients is also high. The percentage of college completers drops as the percentage of sporadic workers increases. Thus, work experience during adolescence has “disparate associations with educational attainment depending on the combination of average hours and duration of the employment” (Staff & Mortimer, 2007, p. 12). Staff and Mortimer (2007, p. 11) also found that “students who worked 35 hours or more per week were less likely to receive a BA/BS degree than those students who worked 1-20 hours per week”.
Although job type was positively related to the likelihood of post-secondary attendance and receipt of a Bachelors degree, the coefficients were not statistically significant.

Previous research has found that “for young people working more than twenty hours per week while in school, the mean level of years of schooling is inferior” (Dagenais, Montmarquette & Viennot-Briot, 2001, p. 4). There are exceptions with one study finding “a positive effect on the probability of obtaining a diploma over a specific range of hours of work while in school with a nonlinear specification” (Dagenais, Montmarquette & Viennot-Briot, 2001, p. 5). Moreover, even though working while at school may affect school performance, “prohibiting working while in school would have little impact on the dropout rate of white Americans attending high schools” (Dagenais, Montmarquette & Viennot-Briot, 2001, p. 5). Therefore, the nexus between working while in school – school performance – dropout is more complex than it first appears. Dagenais and others (2001) conceptionalise this complexity from two different angles: the Grades, Work and Dropout (GWD) and the Work, Grades and Dropout (WGD)

Employment is common during youths’ high school years. On average, employed youths work a high percentage of weeks, and work a significant number of hours per week during the school term, and this increases by grade. Despite different methodologies and data sets, prior research points to “no or a small negative impact of youth employment on academic achievement” (Rothstein, 2007, p. 210). The results from Rothstein’s (2007) study suggest a similar result, pointing to a small negative impact of current and prior-year hours of employment on grade point average for both males and females. Due to the differences related to observable or

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30 Dagenais, Montmarquette and Viennot-Briot (2001, pp. 5-9) presented three models. The Work, Grades and Dropout (WGD for short) model: the student’s main interest is to enter the labour market. In this model, the student is more inclined to reach the labour market than to pursue schooling. Therefore, the student chooses to experiment the labour market by working while in school. This work might negatively affect the student’s grades, potentially leading to a dropout. In the Grades, Work and Dropout (GWD for short) model the student’s main interest is academic performance. In this model, the student is more inclined to stay in school with the main goal to achieve a strong academic performance. However, good grades might induce the student to work while school (Dagenais, Montmarquette & Viennot-Briot, 2001, p. 7).
unobservable characteristics, school-year employment may not be the cause of particular positive or negative academic consequences.

3.3.2 Negative effects of part-time work on school performance

The intensity of part-time work can have a negative effect on school-outcomes. A number of studies have shown a negative association between the number of hours worked during the school year and academic performance. For example, Singh, Chang and Dika (2007) studied the effect of part-time work on grades, controlling for prior and concurrent factors that lead to achievement. The concurrent factors were academic engagement, effort and motivation, in addition to background factors of family socioeconomic status, as well as parents' and students' educational aspirations. Singh, Chang and Dika (2007) found a larger negative effect on grades and a direct negative effect of intensity of part-time work on courses taken in mathematics and science. There was a significant decline in achievement scores when students worked more than 10 hours a week. For students who worked long hours they spent “less time on homework, ‘cut class’ more frequently, have lower educational expectations, and more disengagement from school” (Singh, Chang and Dika, 2007, np). Although the negative effects of part-time work on school-engagement variables were consistent, the results on grade point average (GPA) were mixed. The research found that non-working students tended to have higher

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31 To investigate the effect of work on school achievement, various other factors have to be controlled, namely family background, educational aspirations, school motivation, engagement in academic work, and academic effort (Singh, Chang & Dika, 2007). Singh, Chang and Dika (2007) hypothesised a negative effect of work on grades and controlled for (a) family background variables, (b) parents' education, occupation, and aspirations; (c) students' educational aspirations; and (d) school-engagement factors. To determine the effect of part-time work on school grades, Singh, Chang and Dika (2007) ran a series of hierarchical regression models, investigating differences among students on school engagement and school performance according to their working or nonworking status, and how much they worked. They explored the differences between working and nonworking students on achievement-related variables, and among working students on the basis of the number of hours worked per week.

32 Reasons for the inconsistencies in findings reported in the literature are related to differences in research designs, methods, measures, and various subpopulations of students (Singh, Chang & Dika, 2007). For example, differences between working and nonworking students may be attributable to pre-work differences in attitudes, values, and behaviours. Work intensity might be the result, rather than the cause, of low academic achievement. Family background variables are strong and consistent predictors of school success, as are students' educational aspirations.
engagement and performance in school than did working students. Controlling for all prior factors, Singh, Chang and Dika (2007, n.p.) note that “working part-time had a significant negative effect” on grades. Students of similar family backgrounds, educational aspirations, and similar levels of school engagement were likely to do worse than their peers if they were also involved in part-time work. These findings highlight the deleterious effects of long hours of work on school-related outcomes.

Dagenais, Montmarquette and Viennot-Briot (2001) used an econometric model in which the determinants of work while in school, dropout and academic grades were set in the context of two types of high school students: those who favour schooling and those who are more inclined to access the labour market. While there are many factors to explain the decision to dropout, working while in school is often considered as an obstacle to obtaining a high school Certificate (Dagenais, Montmarquette & Viennot-Briot, 2001).

Additionally, the situation of the youth labour market also plays a significant role in them working while at school and the decision to dropout. The interaction variables (unemployment rate, postsecondary educated parents, the unemployment rate, and bi-parental families) are insignificant in the WGD model but are significant and positive in the GWD model. The conclusion is that “in the GWD type, a student favours schooling over a near labour market full time participation. The WGD type student on the contrary is more inclined to limit schooling in order to access rapidly the labour market” (Dagenais, Montmarquette and Viennot-Briot, 2001, p. 13). Since young adults spend some time on working while at school, would they learn something in the workplace?

3.3.3 Workplace learning

The relationship between context, learning and pedagogical practices in the workplace is interactive. Organisations differ in the way they create and manage themselves as learning environments. External and internal factors affect pedagogical practice within any workplace setting. Young adults “experience diverse forms of participation and, hence, are more likely to foster learning at work” (Unwin & others,
This research shows that “learning and teaching processes are not free-floating, but strongly anchored and manipulated by the nature of the context from which they emanate and in which they are allowed to exist” (Unwin & others, 2007, p. 337). Therefore, the connection between an individual’s attitude to and participation in learning and the wider context of his employment is a key feature of the concept of employee involvement (EI). However, Unwin et al (2007) emphasise that the connection between workplace learning and EI is largely rhetorical because much EI research has paid minimal attention to employee learning, assuming that enhanced learning is a by-product of EI. In addition, both the discourse of EI and the nature of its implementation can differ markedly according to context.

All learning and pedagogical practices in the workplace are affected by a series of factors and, shaped by external and internal imperatives. The combination of these factors and imperatives differ according to “the nature of the goods and/or services being produced, the type of ownership and culture of the organisation, its viability and status in its product market, and the extent to which outside forces can interfere in its activities” (Unwin & others, 2007, p. 345). However, the workplace has an advantage over formal educational institutions in that “pedagogical activity is likely to be spread across a much broader range of people” (Unwin & others, 2007, p. 345). Those organisations that recognise the pedagogic potential of their employees are able to “promote a stronger learning culture than those that conceptualise the transmission of skills and knowledge as a hierarchical, top-down process” (Unwin & others, 2007, p. 345). For learning to be helpful, it is found that “light needs to be shone on as wide a variety of workplaces as possible in order that we might learn more about the teaching and learning that occurs day in day and which, for the most part, remains invisible” (Unwin et al, 2007, p. 346).

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33 Cumming and Carbines (1997) research on how industry workplace learning programs that allow students to learn outside the school which can be extended beyond upper secondary school to make a greater impact on other areas of the curriculum and other groups of students.

34 The requirement for employees to acquire specific job-related knowledge and skills may be driven as much by external imperatives as internal ones. Employees were engaged in “forms of instruction in the workplace covering a range of matters from disciplinary knowledge through to adjustment of manual performance” (Unwin & others, 2007, p. 339). This involved pedagogical practices between peers, between apprentices, and between apprentices and older workers.

35 All workplaces are complex environments in which “learning takes many forms and in which pedagogical practice can include the full range of activities normally associated with educational
So far, the literature reviewed here concerns organising knowledge in and through school curricula, teachers’ professional learning and school public communication about VETiS. The purpose of all these organisational changes is to provide students with better post-school destinations and better transition from school to work and/or further education and training. Then how to re-organise these schools to make this a reality? In the next section, the literature concerning this issue is reviewed.

3.4 Potentiality and strategies of re-organising schools

This section reviews the research literature which addresses the history of VETiS and the question of what are key stakeholders’ attitudes, responses and strategies for VETiS?

3.4.1 History of VETiS

Vocational education has been part of the Australian school curriculum for a long time. During the last decade or so there has been renewed interest in the concept of VETiS (Karmel, 2007b). The implementation of VETiS was supported by a series of goals in the *Adelaide Declaration on National Goals for Schooling in the Twenty-first Century* (MCEETYA, 1999), including references to links between the education and training sector, business and industry.

settings” (Unwin & others, 2007, p. 345). The extent of pedagogical variety and the nature of the learning opportunities available to and created by employees exist within a set of contextual relationships that shift and change with time. A better understanding of the pedagogical nature of workplaces require “greater use of collaborative multi-disciplinary research studies in which the organisations being studied play a much more active role in the collection and analysis of data” (Unwin & others, 2007, p. 345).

36 Bryk (2010) conducts a research on organising schools for improvement by using survey data collected from teachers, principals, and students to develop school indicators from each of the five essential supports, chart changes in these indicators over time, and then relate these organisational conditions to subsequent changes in student attendance and learning gains in reading and mathematics.

37 Specifically, this Declaration states: schooling should be socially just, so that all students have access to the high quality education necessary to enable the completion of school education to Year 12 or its vocational equivalent and that provides clear and recognised pathways to employment and further education and training (MCEETYA, 1999, np).

38 See Melbourne Declaration on Educational Goals for Young Australians (2008)
In 2002, in response to these national goals, the Ministerial Council’s Taskforce on Vocational Education and Training in Schools (2002) proposed a new VETiS framework to improve the transition of all young adults from school to work and/or further education and training. To provide impetus for this policy and to support the expansion of VETiS, $20 million of Australian National Training Authority (ANTA) funds were allocated each year between 1997 and 2001, and again a similar amount between 2002 and 2004.

During the 1990s, Australian vocational education and training system underwent major reform. What had been a State-based system became a national system, underpinned by the establishment of ANTA and a Commonwealth-State agreement. One of the thrusts of these reforms was “a change in emphasis so that the VET system became industry led rather than educationally driven” (Karmel, 2007b, p. 104). Certificate III came to be seen as (roughly) equivalent to the completion of Year 12. In the early 1990s approaches to VETiS focused upon the acquisition of specific skills gained through work placements, which gave school students “the opportunity to learn and practice skills in a real work environment” (Smith, 2004, p. 567). By the latter half of the decade the focus broadened. The concept of “enterprise education” became prominent, being defined as “a distinct activity by identifying the boundaries between entrepreneurship studies and ‘traditional’ management studies” (Hytti & O’Gorman, 2004, p. 11). During 2001-2002 the concept of “employability skills” represented a further development of the idea of key competencies and generic skills sets (Smith, 2004, p. 564). VETiS includes structured work placement to provide opportunities for students to learn and practice skills in a real work environment. In 2001, 60% of VETiS students were found to undertake work placements. Smith (2004) argues that the problem with VETiS was the stress placed upon students under pressure to increase their hours either of work or off-the-job training. There were timetabling problems in schools, a problem which was worse in

39 There are six elements which can be integrated in courses to improve employability skills: The progressive development of autonomy; the development of skills; personal development planning; the inclusion of activities similar to those required in the external environment; student reflection on skills and knowledge and how these can be transferred to different contexts; the encouragement of career management. (Smith, Clegg, Lawrence & Todd, 2007, p. 131)
some States rather than others because of differences in organisational reforms (Smith, 2004).

In Australia, different organisations have over the years become involved in delivering VET programs. Technical and Further Education (TAFE), once “the near monopoly provider of VET, is now only one of many” (Chappell, 2003, p. 24). A new VET market was created by Government with many providers competing with each other to supply VET programs and services. This transformation of VET increased the organisational complexity of the VET system in Australia exponentially. Now VET programs are delivered both on and off-the-job; by public, private and non-government providers; in workplaces and in classrooms, in schools, colleges and in-house; face-to-face, on-line and by distance, and by education and training practitioners with different qualifications and work experience, and to a wider variety of students (Chappell, 2003). With regards to VETiS, different people present different points of view.

3.4.2 Varied views of VETiS

VETiS was relatively popular among Year 11 and Year 12 young adults. Since its introduction in 1996, when 16% of Senior Secondary students participated in VETiS, its popularity grew to almost 50% in 2003. Students who left after Year 11 had much better outcomes the next year compared to Year 11 leavers who had not participated in VETiS (Anlezark, Karmel and Ong, 2006). Anlezark, Karmel and Ong (2006) report that VETiS is a successful pathway for some young adults. However, the fields of VET offered at school do not line up particularly well with those offered outside school or required by industry or expected by Governments. In comparing

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40 This suggests that the reason for the negative effect on Year 11 to Year 12 school retention was tied up with the school VET program aiding the transition to the labour market, perhaps through the work experience component of the program (Anlezark, Karmel & Ong, 2006, p. 49).

41 Ghost (2002) investigated VET in schools: the needs of industry. Its focus was on the changing needs of industry and the need for a system that prepares young adults for the future world of work. Ghost concluded that to ensure the relevance of learning programs, educators need to understand how workplace skills continually change. At the same time, industry needs to understand the school environment and what can be realistically achieved in supporting the skill-formation needs of the workplace.
VET offerings inside and outside school, school VET subjects are at a lower level, even for the same age groups. While Certificate III is the ‘bread and butter’ of VET, there are very few at this level offered at school. VETiS has grown enormously, to the extent that around half of Year 11 and Year 12 students have some exposure to it (Anlezark, Karmel & Ong, 2006). However, the proportion of the students in the Longitudinal Surveys of Australian Youth Y98 cohort reporting participating in VETiS was “significantly less than that obtained from the administrative statistics” (Anlezark, Karmel & Ong, 2006, p. 49).

Across the industrialised world, changes in work and society are transforming the landscape of education and training. Learning is claimed as the way for young adults to deal with these changes and uncertainty. Billett and Seddon (2004, p. 52 italics added) note that “in Australia, up to 30% of young people fail to gain enough education and training to ensure employment security”. In response to these learning demands, ‘new’ social partnerships are being organised alongside and outside existing institutions of education and training. Programs have been organised through collaborative decision-making among local schools, community and industry.

A trend emerged was that an increasingly significant feature of international public policy, particularly in Europe and the developing world, is the organisation of social or community partnerships. This trend is being actively promoted through planning by Government and non-government agencies. Government policy proposes that

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42 According to Anlezark, Karmel & Ong (2006, p.18) the key characteristics of students who participate in school VET programs are that they attend a government school, reside in non-metropolitan areas, come from an English-speaking background, have parents in unskilled occupations, and belong to a lower overall academic achievement quartile.

43 These ‘new’ social partnerships are said to entail organising new opportunities for learning throughout life by enabling individuals to learn through active participation in community-based learning contexts; and incorporating communities more actively into the design and implementation of learning programs so that individuals learn through their involvement in localised decision-making and governance (Billett & Seddon, 2004, p. 52). These ‘new’ social partnerships are supporting relatively innovative approaches to learning opportunities through localised decision-making, such as Queensland’s DYAPs (Harreveld & Singh, 2008). These newly enacted partnerships are largely sponsored by Government as a means to: address apparent failures in the capacity of centralised agencies to be policy sensitive to needs arising away from the centre; expeditiously advance government initiatives; and encourage capacity building in regions away from the centre (Billett & Seddon, 2004, p. 63). The challenge in organising social partnerships lies in the careful, but difficult, work of relationships building, and the negotiation of shared understandings and agreements between the partners.
“interest in social partnerships resides, in part, in the apparent failure of the responsiveness of central government agencies and centralised processes” (Billett & Seddon, 2004, p. 55). Evidence of the recognition of this failure within Australian vocational education is found in the shift from nationally consistent curriculum documents to Training Packages, which include non-endorsed components that aim to be responsive to local needs. There has been a growth of interest in organising social partnerships associated with VETiS in Australia.

Social partnerships offer an opportunity to extend conceptions of learning spaces beyond the established institutions of education and training (Billett and Seddon, 2004). In many of the enacted social partnerships in vocational education, the workplace plays an important role as a learning space, even if it is not expressly seen as such. However, social partnerships founded around vocational education are currently the primary focus for extending the reach and improving the quality of education and training provision through established institutions. Industry-school partnerships are “an improvised technology for pursuing particular objectives of Government within globalised and globalising contexts” (Hay & Kapitzke, 2009, p. 214). It was found that this partnership is made possible only through the reorganisation of available educational technologies and resources, including development and delivery of an industry-specific syllabus and related curricular materials to meet broad educational objectives within the constraints of existing teacher expertise, school timetabling, and available physical resources (Hay and Kapitzke, 2009). Partnership also poses challenges to school-to-work transition.

3.4.3 The challenges of partnerships in school-to-work transition

Effective partnerships require social cooperation and institutionalised linkages between schools, colleges, trainers, unions and employers. The growing interest in education/industry partnerships is a way of sharing responsibility for young adults’ school-to-work transition. Such partnerships are especially relevant and perhaps most needed in societies that do not have strong traditions of close collaboration between
Government, employers, trade unions and community organisations. Certain research identifies some challenges to organising partnerships, for instance the diversity of goals and practices within partnerships may “result from differences in partners’ economic resources, knowledge, cultural capital, status and values” (Taylor, 2006, p. 320). While this diversity may be a valuable feature of partnerships in terms of learning, the sustainability of partnerships requires that organisational procedures being put in place to address constraints and conflicts, with the understanding that differences are unlikely to be finally resolved. Organising resources and support structures are important, given that social partnerships tend to be a ‘risky business’ (Taylor, 2006). This program was unusual in that it provided “a cohort of students with access to technical apprenticeship training while they are still in high school, as well as help finding work placements” (Taylor, 2006, p. 321).

Throughout Australia, many high school apprenticeship partnerships have been initiated, supported and funded outside of the relationships and communities in which they are to be enacted. The organisation of partnerships requires “clear roles and mechanisms for coordinated cooperation and significant effort on the part of Government, educators and trainers” (Taylor, 2006, p. 323). Successful partnerships require the organisation of the time and energy of participants to articulate programs, resolve differences, ensure consistency of expectations and address jurisdictional concerns. Without attention to the development of the skills and knowledge of partnership staff, the organisation of sustainable partnerships is in question (Taylor, 2006). Thus, Government and partners need to provide more organisational infrastructure to ensure the sustainability of such partnerships. These organisational issues include funding security, professional learning and networking opportunities for partnership staff and greater recognition for partnership work.

van der Spek, Kruizinga and Kleijsen (2009) research on strengthening lateral relations in organisations through knowledge management. The findings demonstrate that pro-active knowledge management can help to alleviate weaknesses introduced by dominant orientations in organisational design.

Daly and Finnigan (2010) examine the underlying social networks. This exploratory case study uses social network analysis and interviews to examine the communication and knowledge network structures of central office and site leaders in an ‘in need of improvement’ district facing sanctions under No Child Left Behind. They find that spares ties among and between school site and central office administrators, as well as a centralised network structure that may constrain the exchange of complex information and ultimately inhibit efforts at change.
Some young adults might experience problematic school-to-work transition. Given the substantial decline in unemployment since the 1991/93 recession, Marks (2005) investigated how accurate pessimistic accounts of the school-to-work transition are, limiting to young people who did not go to university. The results suggest that in the years after leaving school, an increasing majority are in full-time work and there is considerable movement into full-time work from part-time work and unemployment. Furthermore, each year full-time workers show increases in job status and earnings. Only a small minority of non-university bound youth have problematic school-to-work transitions. The results also indicate that the policy emphasis on increasing participation in vocational education is misplaced. Except for apprenticeships and then only among males, vocational education does not appear to promote full-time employment. Then, from the other perspective, what is an employer’s view on VETiS?

3.4.4 Employers’ perception of VETiS

It is necessary and important to conduct a study into what employers look for in their employees; whether young adults are aware of the expectations of employers, and how their views of employer expectations sit with policies for skilling the nation. A study revealed that employers perceive many young adults as not having an understanding of their requirements and expectations. A House of Representatives Standing Committee (Youth employment: a working solution, cited in Taylor, 2005, p. 204) acknowledged that above anything else employers want employees to “have the right attitude – that is a willingness to work, a desire to learn, punctuality, honesty and appropriate personal behaviour and presentation”. In addition to the ‘right’ attitude, the employees should also have academic ability, and earn the money the company needs to make a profit. The young adults’ views concur with those of employers (Taylor, 2005).

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46 This research was based on interviews with a group of trade-oriented adults working in the building and construction trades in Western Australia. The result indicated that “these trade-oriented young people have a relatively accurate view of many of the competencies, attitudes and dispositions an employer would be likely to expect of young workers. These youths are privileging old-fashioned and time-honoured attitudinal and dispositional attributes associated with the work ethic” (Taylor, 2005, p. 202).
In the opinion of employers, the most relevant learning occurred on-site, on-the-job, over time and under their management. There was no evidence to show that employers looked for or privileged those who had undertaken a skills-based, industry-specific VET program in school. This suggests that employers considered the skills obtained on-the-job to be more valuable than those gained at school. For employers, they are likely to take into account a broader range of factors when deciding between applicants. Biddle (2007, pp. 183-184) claims that “academic achievement is important; however, so are the things such as interpersonal skills, communication skills and knowledge of business processes”. While employers’ peak bodies require adults to be armed with many personal attributes and dispositions, how these might be taught remains unsettled (Taylor, 2005). There is also ambiguity about the nature of the skills employers and their peak body representatives are supposedly seeking in the young adults. This makes it difficult for schools to know what to privilege in their VET programs. Even so Taylor’s (2005) study suggests that adults are cleverly reading employers’ expectations. Importantly, his study highlights questions about the way in which the skills debate is being structured and the suggestions it has for schooling.

The Australian youth labour market has seen a marked increase in part-time employment from 1983 to 2003, from 28% to 68% of employed people aged 15-19 (Smith & Patton, 2007). By 2003, 79% of 15-19 years who were studying on a full-time basis were employed part-time. In addition, the average number of hours worked per week was around 10. Young adults are now more job mobile than older age groups. What’s more, workers’ career patterns and attachments to employers are changing, and workers are more likely to experience several changes of occupation and the skills required within those occupations may also change quite rapidly.

Retails and fast food industries are the ones in which school students most often find formal part-time work, with around two-thirds of school students working in these

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47 In 2003 in Australia, the proportion of people aged 15-19 years in full-time employment was only 15%. Most young people of this age group were at school or in tertiary education; but this does not mean they were not working. Most workers have a lengthy part-time work history before leaving full-time education and this work history is most likely to take place in the retail and fast food industries which may not be the site of their eventual ‘career jobs’ (Smith and Patton, 2007, p. 3).
industries (Smith & Patton, 2007). The retail and fast food industries face a number of unique challenges which explain their need to minimise labour costs, and to some extent, their need for the labour of student-workers. Labour turnover among student-workers is high. It was found that employers tolerated high labour turnover and high disaffection among their workers owing to the standardisation of work and low levels of skill required. Some branch operations of these industries depended entirely upon student-labour at varying ages and degrees of maturity filled different positions in the stores and branches. The intensive use of student-labour created some challenges. Managers needed to be very aware of the needs and likes of teenagers, and those managers who were able to relate best to this age group seemed to have the most success in attracting and retaining young workers. The companies differed in their use of student-workers as a recruitment device for senior managers. Some industries had a strong preference for recruiting its future senior managers from part-time student workers. Smith and Patton (2007, p. 6) report that

   good workers were targeted for recruitment into part-time traineeships which were viewed as a track to managerial careers. All of the store managers and the national/State managers interviewed had previously been student workers.

Managers expressed a strong preference for students who had already worked for the company for two reasons: “the learning time before the student-worker became effective was much shorter; and they could be confident that the student-worker would enjoy the work and would stay in the job” (Smith & Patton, 2007, p. 7). This finding underlines the importance of employers’ flexibility with their student-workers; if they did not allow time off or shift changes they would not retain staff. Companies tended to recruit young people that could “adequately do the job, that would stay with them for reasonable periods of time, and, in at least some cases, would be willing to consider long-term careers in the organisation” (Smith & Patton, 2007, p. 8).

In summary, historically, VETiS underwent changes in emphasis, means of delivery, funding and changes in partnerships. Some stakeholders have a positive view toward VETiS, evident in the implementation of productive partnerships. However, some other employers preferred on-the-job skills training to being involved with school.
This raises a question of whether it affects students’ choices of post-school destinations. In the next section, research literature on this issue is reviewed.

3.5 Student pathways

What does the research literature have to say about student outcomes and post-school destinations? This question is the focus of this section.

3.5.1 VETiS outcomes

On the whole VETiS has been positive and has broadened the choices available to young adults and for some it has provided a pathway that was not previously available. VETiS and school-based apprenticeships have been a major area of growth in 2005. In 2004, 211,900 students were enrolled in VETiS; this included 15,200 school-based apprenticeship commencements (NCVER, 2008). Although most States and Territories incorporate school and VET administration within one department, VETiS is “typically administered and funded through the schools division and this funding is not part of the State training profile” (Keating, 2008, p. 30).

For the first time, 2008 saw VETiS statistics published under a new data-collection arrangement. The public release of VETiS statistics promised “more accurate reporting and more consistent reporting between States and Territories” (NCVER, 2008, p. 3). There were issues of data quality for the 2005 statistics which arose as a result of the manner they were collected. These issues create problems for using these statistics making comparisons and conclusions difficult. Table 3.1 presents information on vocational education and training undertaken by school students as part of their Senior Secondary Certificate, called ‘VET in Schools’. The VET in Schools arrangement offers two main options. Students can undertake school-based apprenticeships and traineeships or VET subjects and courses. The latter is referred to as ‘other VET in Schools programs’ (NCVER, 2008).

It can be seen that in 2005, there were 182,900 VET in School students in Australia, 46,400 in Queensland. Of these, 13,000 students in Australia and 5,900 in Queensland undertook a school-based apprenticeship or traineeship, and 170,000 students in
Australia and 40 600 in Queensland were enrolled in VET in Schools programs, other than a school-based apprenticeship or traineeship. However, in 2007, the number of students involved in VET in Schools was 174 800 in Australia and 43 100 in Queensland, representing a fall. 15000 students in Australia and 5000 in Queensland were involved in a school-based apprenticeship or traineeship (NCVER, 2009a). In 2008, the tendency went up, with 220000 VET in Schools students in Australia and 78 400 in Queensland, among which 25 700 students in Australia and 14000 in Queensland undertook a school-based apprenticeship or traineeship. In that year the number of students who were involved in other VETiS programs was 194 200 in Australia and 64 300 in Queensland (NCVER, 2009b) (see Table 3.1).

<table>
<thead>
<tr>
<th>Year</th>
<th>Scope</th>
<th>Number</th>
<th>School-based Appr + Tr</th>
<th>Other VETiS Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Australia</td>
<td>182 900</td>
<td>13 000</td>
<td>170 000</td>
</tr>
<tr>
<td></td>
<td>Queensland</td>
<td>46 400</td>
<td>5 900</td>
<td>40 600</td>
</tr>
<tr>
<td>2007</td>
<td>Australia</td>
<td>174 800</td>
<td>15 000</td>
<td>159 800</td>
</tr>
<tr>
<td></td>
<td>Queensland</td>
<td>43 100</td>
<td>5 000</td>
<td>38 100</td>
</tr>
<tr>
<td>2008</td>
<td>Australia</td>
<td>220 000</td>
<td>25 700</td>
<td>194 200</td>
</tr>
<tr>
<td></td>
<td>Queensland</td>
<td>78 400</td>
<td>14 000</td>
<td>64 300</td>
</tr>
</tbody>
</table>

(Source: adapted from NCVER 2005, 2007 and 2008 VET in Schools Statistics)

There are significant differences between programs offered within and outside school (Karmel, 2007a). The subjects offered at school tend to be those with close links to pre-VET subject areas. In-school courses are dominated by Certificate IIs, with considerable numbers of Certificate Is. In contrast, the non-school courses have many more Certificate IIIs. Thus, the in-school VET is not a representative slice of the VET system.\footnote{How successful has VETiS been? Karmel (2007a) reports that the literature looking at the success of VETiS, including government evaluations, has looked at structured workplace learning, accreditation and delivery, or its place in the syllabus, implementation issues, students with a disability. VETiS has gained favourable press, although there are many issues unresolved about resources, the meaningful involvement of industry, school organisational structures, and the demands of university entrance. Karmel (2007a) concludes that (1) the diversity and relevance of VET curriculum is providing opportunities, (2) VETiS improves student retention; (3) VETiS students are}
VETiS courses providing a pathway to local employment appear to be successful in retaining students who otherwise may have left school early, and are assisting them make the transition from school to work. However, pathways from VETiS into the primary industries need to be more flexible to improve access to training and participation, particularly in remote areas. VETiS encompasses a huge variety of options and experiences, which have been implemented in many different ways and targeted at many different groups of students. Karmel (2007a) reports that VETiS appeared to have improved Year 10 to Year 11 retention but has not reduced the decline in retention from Year 11 to Year 12. Retention was not the only motivation for VETiS. A contrary motivation is the desire to improve transition to the labour market. Then what are young adults’ views about their l/earning?

3.5.2 Young adults’ perspectives on learning and earning

Young adults overwhelmingly saw career as a personal journey that involved particular personal qualities rather than a position or pathway within an occupation or organisation (Stokes and Wyn, 2007). When young adults negotiated the interrelated realms of learning and earning, continuing inequalities, the context of choice, flexibility in decision-making and re-definition of careers have influenced, and will continue to have a significant impact on the formation of young adults’ subjectivities (Stokes & Wyn, 2007). However, while educational credentials were becoming more important to gaining employment, they were less likely to provide certainty of entry to young adults’ desired occupations. This research revealed that part-time work and work placement were often regarded differently by the young adults. The vast majority regard their part-time work as not related to their future

more work-ready than other school leavers; (4) VET in schools improves students’ transition from school to work.

49 Inequality in Australia is such that young adults from low socio-economic backgrounds consistently have the poorest educational outcomes and are the least likely to be involved in paid work. Such young adults are half as likely to participate in higher education as their peers from medium or high socio-economic backgrounds. Personal relationships, wellbeing, lifestyle and leisure take a central focus in their lives, influencing their study, work choices, and concept of a career (Stokes & Wyn, 2007).
career. In contrast, work placement\textsuperscript{50} through VETiS provided work in areas in which the young adults had an interest and could be seen as an investment in their future career. The research also revealed the importance of organisational supports such as “effective school curricula that help them bridge the worlds of student and worker, and family advice and connections” (Stokes & Wyn, 2007, p. 508). Young adults who do not have effective organisational supports are “more likely to struggle, reinforcing the pattern of continuing inequalities in student outcomes” (Stokes & Wyn, 2007, p. 508).

Part-time employment is a common feature of the lives of secondary school students. The extent of paid work performed is a significant experience in their life. There are costs and the benefits of part-time employment to them. The scholarly debate here concerns the extent to which part-time employment helps prepare young adults for an adult working life. Hobbs, Stack, McKechnie and Smillie (2007) conducted an interview-based study, surveying third-year secondary school students in four urban and three rural schools in Scotland. It was found that

\begin{quote}
in both urban and rural schools the majority of students had had some experience of paid employment … students working longer hours tended to perform less well in mathematics and English, whilst students working only five hours a week or less performed better than those who had never worked (Hobbs & others, 2007, p. 125).
\end{quote}

The same cohort of students was surveyed in their fourth year of secondary school, to get a picture of changes over time. They found that “some students changed or gave up their jobs” (Hobbs & others, 2007, p. 125). The study addressed two issues, namely, “whether students see their jobs as merely routine or providing learning experiences [and] the views of their parents and peers about employment” (Hobbs & others, 2007, p. 126). Only 15 out of 70 respondents described seeking a job on their own initiative. The overwhelming tendency (91\%) was to say that they liked the job. The largest single category of benefits was developing the ability to deal with people. The ability to handle money was mentioned almost as frequently as interpersonal skills. Others included time-management, being organised and reliable, and being confident and patient.

\textsuperscript{50} Work placement refers to “formal arrangements normally undertaken in Years 11 and 12 as part of the VETiS program” (Stokes & Wyn, 2007, p. 502).
Youth employment is “quite deeply embedded in the culture, in both rural and urban areas” (Hobbs & others, 2007, p. 131). It is possible to draw attention to the limitation of young adults’ jobs and to question their usefulness as a learning experience. However, it is important to acknowledge that there is a positive interpretation of these experiences. Many young adults had a positive view of their job, claiming that there is potential to gain skills that may be of value in later life. However, it is necessary to understand why students stay on at school and how they see this helping them in their life and work.

3.5.3 Issues with retention in schools

Young adults emphasised the social aspects of their schooling. ‘Staying on’ was a pathway to social activities for some students (Crump and Stanley, 2005). Some students described positively pedagogical relationships, but these were always connected with teachers respecting them as learners. Forming a learning identity was considered in terms of how students saw teachers as creating the relational conditions for attachment, belonging and a sense of community, and teachers’ capability of focusing on what was important. The overlap between ‘learning’ while having ‘fun’ was a consistent consideration. Students labelled as respectful teachers who knew their subject-matter, were open to student suggestions, and who made students feel ‘important’ and offered them encouragement. It seems that from the students’ point of view, relationships between teachers and students are a key to their retention at and successful learning in school. For some parents, the logistics of their child leaving school for a trade apprenticeship was too difficult to manage, so the pathway chosen was not necessarily the preferred route. For other parents and children, the choices were “more about opening up options” (Crump & Stanley, 2005, p. 14).

The lack of opportunity for students to have a say in their learning is one of the more important power inequalities in schools. Students may have more relational power than we give them credit for when it comes to their acceptance or rejection of the conditions under which they learn. Smyth and Fasoli (2007, p. 284) claim that what students are willing to ‘share’ versus ‘suppress’ may not be “a reflection of their full
body of knowledge, but rather that which they think is deemed ‘fit’ to bring to school”. Even so, schools aim to give more opportunities to potentially disengaged students “to find a pattern of courses that is comfortable and relevant for them, and still opens pathways to further education” (Crump & Stanley, 2005, p. 15).

Whether students are able to take full advantage of the options offered depends on a number of organisational factors, not all of which are under the control of the school. However, improving the life chances of marginalised as well as mainstream students remains “a worthy policy direction to pursue, even if imperfectly” (Crump & Stanley, 2005, p. 15). A crucial question was about “how to understand and respond educationally to the issue of students’ emotional, psychological and physical disengagement from school” (Smyth & Fasoli, 2007, p. 276). The evidence from these studies make a crucial and fundamental point, namely that it is difficult to organise the conditions necessary for disadvantaged youngsters to connect to, belong to and remain in school. Smyth and Fasoli (2007, pp. 291-292) contend that “without that it seems that the most unfortunate aspects of the circuit of irrelevance of schooling, alienation and hopelessness cannot be interrupted”. Therefore, organising effective students’ transition from school to work is not only necessary but also an imperative.

3.5.4 Young adult’s transition from school to work

51 In doing this, educational organisations are facing some difficult questions: it had to reconcile two sets of demands – from the students and families, and from the Australian Qualifications Framework – in developing new courses; it faced staff training issues, problems about facilities, and questions about articulation with TAFE; it had to do all this in a short time-frame, in a context of wider change in the HSC, and in an era when public education is under challenge from within and without (Crump & Stanley, 2005, p. 15).

52 The global financial crisis and natural disasters are examples of mega factors beyond the control of schools, but impact on young people’s lives.

53 Porter (2006) investigated the objectives and expected outcomes of VETiS programs for four stakeholder groups: students; school VET coordinators; trainers; and employers. This research found that at a broad level, the two main objectives of these school-based VET programs – facilitating the transition between school and work, and providing a highly skilled workforce. There was considerable diversity at the local level in the implementation of the school-based VET programs. The approach to VET was influenced by factors as diverse as government policies, resources available within a school or community, parental perceptions, and the strength of community networks.
Helping young adults make a smooth transition from school to the workplace or further study has become an important role for the vocational education and training (VET) sector. Between 1986 and 2005, the engagement of young adults aged 15 to 24 years in full-time education increased, while their engagement in full-time work decreased (Woods, 2007). With this increased emphasis on education, VETiS has become an important pathway to work for many young Australians. At about 21 years of age, the majority of young adults are employed full-time and are satisfied with their career choice. Those not engaged in any post-school activity generally have lower levels of satisfaction. Is VET helping in this transition? Woods (2007, p. 5) reviewed the research on the labour market outcomes of two groups of young people: those who undertook traineeships after leaving school; and those who did not participate in post-school education and training. It was found that by 21 years of age, trainees were less likely to be experiencing unemployment and more likely to be earning higher wages than the comparison group. Using the Longitudinal Survey of Australian Youth data, it is found there appears “higher full-time employment rates for young adults who completed a VET qualification compared with those without a post-school qualification” (Woods, 2007, p. 5).

What may impact on VET outcomes? Woods (2007) suggests that pathways involving multiple fields and sectors of education can help students to explore different career options and provide a variety of work experiences. However, the process is more straightforward if they are given good career advice. With respect to the level of VET program, the employment outcomes six months after training depend on the level of VET undertaken. Participants who undertook VET courses such as Certificates I and II level typically did not obtain their desired job after six months of training; instead, they had to do further study at a higher level (Woods, 2007). Anlezark, Karmel and Ong (2006, p. 43) note that VETiS is mainly “concentrated around Certificate II level qualifications”. Most school students do this level of Certificate through VETiS. However, their outcomes did improve over time. By two-and-a-half years after their initial training, employment levels for participants in all qualifications tend to even out and fall between 80% and 90%. VETiS has a particularly positive impact on the transition to post-school study for early school leavers. VETiS participants who left school after completing Year 11 had a much
easier transition than their peers who left school after completing Year 11 without undertaking school VET programs.

Successful post-school outcomes are influenced by the time the student has in the labour market, that is, “the longer the time, the more diluted the positive effects from participation in school VET programs become” (Anlezark, Karmel & Ong, 2006, p. 39). By course level, schools focus on Certificates I and II, while outside school Certificates II and III dominate. That is schools, which are constrained by available resources tend to offer VET courses that are predominantly modifications of the traditional school subjects. VETiS is an important pathway not only for young adults but also benefiting young people from ‘at risk’ groups which experience multiple or prolonged periods of unemployment (also see te Riele, 2007).

In addition, career development services can have a positive impact on transitions by better informing prospective students of the typical outcomes and further study required after completing particular VET courses. However, Woods (2007, p. 8) notes that “the students who take multiple pathways are generally not aware of the career development services available or do not think they need them”. Four key roles were identified for VETiS: “improving engagement with school and curriculum; broadening pathway options; proving workplace experience; and providing a pathway to employment” (Hill and Helme, 2005, p. 3).

School-to-work transition is the first major work adjustment young adults have to make in their careers. How successful school-to-work-transitions (STWTs) are has important implications for schools and society. For some young adults, the roles of ‘student’ and ‘worker’ are mutually exclusive, because these two roles involve very different expectations. However, for other young adults going through the STWT, such as those participating in VETiS, the two roles are interdependent. Because of

54 Bynner and Parsons (2002, p. 289) conducted a case study of young people not in education, employment, or training (NEET). The research findings indicate that although poor educational achievement is the major factor in entering NEET, inner city living for boys and lack of parental interest in their education for girls are also important. Effective counselling targeted at high risk groups are needed to help young people avoid the damaging effects of NEET and make a successful transition to adult life.

55 Throughout the 1990, youth in Canada were faced with school-work transitions and labor markets characterised by high levels of uncertainty, unemployment and under-employment. Unemployment rates for Canadians between the ages of 15 and 24 years reached 17% in 1993 (Statistics Canada, cited in Lehmann, 2009, p. 138).
the different role expectations, successful STWTs require individuals to change from taking the ‘student’ role to taking the ‘work’ role as the core life role (Ng & Feldman, 2007).

Working during high school had effects on the participants in terms of dropping out rather than completing high school, and involvement in education, training or employment after leaving school. It was found that other things being equal, students who worked part-time were more successful in some respects than students who did not work. In addition, working part time does reduce the likelihood that a student will complete Year 12 (Vickers, Lamb and Hinkley, 2002). However, working with a different set of data (the Australian Youth in Transition Survey), Lyn and Robinson (cited in Vickers, Lamb & Hinkley, 2002, p. 3) found that “part-time employment during Year 11 did not have a significant effect on the likelihood of completing school”. If students work a few hours each week, it makes almost no difference to the likelihood of completing Year 12. The more hours students work per week, the more likely they are to drop out. For low achievers and those from lower socio-economic families, part-time work “does have a positive effect on the odds of gaining an apprenticeship or a full-time job” (Vickers, Lamb & Hinkley, 2002, p. 7). These results indicate that it does make sense for young adults who want full-time jobs to work part-time during high school; and preferably gain credit towards their Senior Certificate for what they learn through this work.

In Australia, working while at school affects post-school transitions and outcomes. Part-time work at high school may have an influence on the pathway a person takes. However, working part-time while at high school has “little direct effect on whether or not a person is able to undertake full-time study after leaving school” (Biddle, 2007, p. 183), because admission to a university course depends on their final school grades or rankings. Of course, there is the possibility that “an indirect effect operates via any influence part-time work might have on grades” (Biddle, 2007, p. 183). Thus, successful school-to-work-transition is affected by multiple factors, including but not limited to students’ preferences, socio-economic status and their participation in VETiS.
3.6 Summary

This Chapter takes up VETiS related themes and issues and how they satisfy the needs of a range of stakeholders. The literature reviewed in this Chapter indicates that researchers have investigated the issues about VETiS from different perspectives, concerning the history of VETiS, different people’s attitudes towards VETiS, the effects of working while at school on school performance, and students’ post-school destination. However, most researchers focus on the problems within one school. There exists a lack of research about groups of schools being organised to address these issues. The organisational changes brought to schools by VETiS would seem to be little studied. Thus, this thesis takes this issue as its research focus to see what might be revealed about such organisational changes after analysing the evidence. Before analysing the data collected, the research methods used in this study are explained and justified in the next Chapter. Collecting credible data and making a systematic analysis of it were key aspects of the research process.
CHAPTER FOUR
EXPLORATORY CASE STUDY OF SECONDARY SCHOOL
ORGANISATIONAL CHANGE

4.0 Introduction

In Chapter Two a theoretical framework for the collection and analysis of evidence generated for this study of organisational changes in Senior Learning has been constructed. Undertaking such a theoretical development before the conduct of any data collection is one point of difference between case studies and methods such as grounded theory. It is not correct to think that “by using the case study method, they can proceed quickly into the data collection phase of their work, and [that educational researchers are] encouraged to make their ‘field contacts’ as quickly as possible” (Yin, 2003, p. 28). The situation is not so simple, however. Such a move may prove more misleading, because fieldwork relies on an understanding of the theory that will guide the study, as much as its methodology. Therefore, before explaining and justifying the data collection and analysis used in this study, this Chapter first explored why case study advocated by Yin (1994, 2003, 2009) was chosen as the research strategy for this study instead of that by Stake (1995) and then explains the case study research design and the research strategies used.

4.1 Case study as a research strategy

The exploratory case study method recommended by Yin (1994, 2003, 2009) rather than the approach used by Stake (1995), has been chosen mainly because it provides for the analysis of data collected in the field of changing organisations. Moreover, Swanborn (2010, p. 115) states: “Stake (1995) [is] a rather opportunistic small book … It focuses more on technical aspects of classic field research than on methodology”. Case study method recommended by Yin (1994, 2003, 2009) was

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56 Case study method is defined as “an attempt to systematically investigate an event or a set of related events with the specific aim of describing and explaining this phenomenon” (Berg, 2007, p. 283). Bogdan and Biklen (2007, p. 59) define case study as “a detailed examination of one setting, or a single subject, a single depository of documents, or one particular event”. Hagan (cited in Berg, 2007, p. 283) defines the case study method as “in-depth, qualitative studies of one or a few illustrative cases”. Yin (1994, p. 13) defines case study as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between
chosen as the strategy to conduct the research reported in this thesis. This is also because case studies deal with the precise and fair presentation of empirical data. This choice emerged from a desire to understand a complex educational phenomenon, in this case organisational changes in Senior Learning.

Case study is an approach capable of examining simple or complex phenomenon, with units of analysis varying from single individuals to large corporations. In education, case studies abound and include “studies of unique people and programs as well as special programming” (Berg, 2007, p. 284). In this case study, the unit of analysis is the Queensland Minerals and Energy Academy (QMEA) organisation.

4.1.1 Case study research skills

Case study research demands much of a researcher’s intellect, ego and emotions. This is because the data collection procedures were not routinised, and the skills required for collecting and analysing case study data are “much more demanding than those for experiments and surveys” (Yin, 1994, p. 55). But rather surprisingly, case studies are the most common types of studies done by novices. A beginning educational researcher is faced with Yin’s (1994, p. 55) daunting claim that “a well-trained and experienced investigator is needed to conduct a high-quality case study because of the continuous interaction between the theoretical issues being studied and the data being collected”.

During both data collection and analysis an experienced educational researcher makes an advantage of unpredicted opportunities and employs the necessary care to guard against potentially biased procedures. The journey to becoming a good case study researcher is challenging, but the goal is to develop the necessary attributes.\(^57\)

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\(^{57}\) A good educational researcher should be able to ask good questions – and to interpret the answers. A good educational researcher should be a good ‘listener’ and not be trapped by his or her own ideologies or preconceptions. A good educational researcher should be adaptive and flexible, so that newly encountered situations can be seen as opportunities, not threats. A good educational researcher must have a firm grasp of the issues being studied, whether this is a theoretical or policy orientation. A good educational researcher should be unbiased by preconceived notions, including those derived

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With the progressive development of these research skills, the researcher turns to designing the project before doing any empirical work.

### 4.2 Research design for this case study

How do educational researchers carry out rigorous case studies? This involves attention to matters of research design, especially data collection, analysis, interpretation and reporting (Robson, 2002).

#### 4.2.1 Research Design

A research design is “an action plan for getting from here to there, where here may be defined as the initial set of questions to be answered, and there is some set of conclusions about these questions” (Yin, 1994, p. 19).\(^5\) Therefore, the research design\(^5\) presented here is much more than a work plan. The main aim of this design was to help me as the researcher to avoid a situation in which the analysis of evidence did not address the project’s research questions. The design of this study was flexible rather than fixed (Robson, 2002). This is because in a flexible research design, thought and attention are given to the purposes of the research, its theory, the research questions which I have tried to answer, the methods of data collection, and the sampling strategy which was needed to get these answers through all phases of

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\(^5\) Nachmias and Nachmias (cited in Yin, 1994, pp. 19-20) defined a research design as a plan that guides the investigator in the process of collecting, analysing, and interpreting observations. It is a logical model of proof that allows the researcher to draw inferences concerning causal relations among the variables under investigation.

\(^5\) Criteria for judging the quality of research design: Because a research design represents a logical set of statements, it is possible to evaluate the quality of any given design according to certain logical tests. Concepts that have been offered for these tests include “trustworthiness, credibility, conformability and data dependability” (U.S. General Accounting Office, cited in Yin, 1994, p. 32). These four tests have been used to inform the quality of the research reported in this thesis. Because this case study is a form of empirical research, the four tests are relevant to this case study. Kidder and Judd (cited in Yin, 1994, p. 33) summarised four tests for dealing with these issues: construct validity: establishing correct operational measures for the concepts being studied; internal validity: establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships; external validity: establishing the domain to which a study’s findings can be generalised; and reliability: demonstrating that the operations of a study – such as the data collection procedures can be repeated, with the same results.
the project (Robson, 2002). I did not get all of this ‘cut and dried’ before starting data collection because at this time I had no fixed idea about what aspects of my theoretical framework or research methodology would be most helpful. In addition, my research questions were initially underdeveloped and tentative so I did not have to foreclose on options about their progressive refinement. Thus, I tried to refine my broad aim into a manageable research question during the first stage of the research process. This refining process entails “moving from broad, desirable aims of the research to specific working research questions that will determine the shape, direction and progress of the research” (Andrews, 2003, p. 4). Therefore, I refined my research questions until I was sure that they would lead me to make an original contribution to knowledge, and so that I could manage to answer them within the confines of the resources I had at my disposal and within the time-frame allotted for this research.

Ideas for necessary changes to my approach arose from my involvement in the research process especially during the data collection phase. As I clarified my research questions, different means of data collection were called for. Thus, a flexible research design was more suitable for this study than a fixed one, and to ensure the reliability of this research, I have detailed those changes in this Chapter.

The case study method used to generate this thesis can be explained as follows: in designing the study the first step was to develop the conceptual framework (See Chapter Two). Then case selection and the definition of specific measures were important steps in the design and data collection process. Of course, this case study design was not something completed and fixed at the beginning of this study, as the design was altered and revised as the study progressed, but only under the stringent circumstances reported here. As Yin (1994, p. 52) argues that “the selection of cases may have to be modified because of new information about the cases”. After some early data collection and analysis, an investigator has every right to conclude that the initial design was faulty and to modify the design. This occurred in this study, for example, in my initial research design, the case of organisational change to be investigated was ‘innovation in Senior Learning’ in all Queensland secondary schools. In the process of collecting documentary data by searching the websites of each secondary school in that State, I found it was beyond my management to collect
and analyse data for all the schools involved. Thus, I modified the research design and focused on the secondary schools that were at that time part of the QMEA (N=18).

However, I did not shift the theoretical concerns or research objectives of the project reported here. If these were so changed, I knew I could correctly “be accused of exercising a bias in conducting the research and interpreting the findings” (Yin, 1994, p.52). The point is that the flexibility in this case study research concerned “selecting cases different from those initially identified but not in changing the purpose or objectives of the study to suit the cases that were found” (Yin, 1994, p. 52). For example, the purpose of this study was to investigate the organisational changes in Senior Learning through VETiS. When I realised that I could not manage the study as initially designed within the time allocated, I narrowed down the scope of the project to a more manageable size rather than changing the objectives of this study.

4.2.2 Research questions

The form of the research questions presented in Chapter One in terms of ‘who’, ‘what’, ‘where’, ‘how’ and ‘why’ provided an important clue to the most relevant research strategy to be used in this study. The case study strategy was “appropriate for ‘how’ and ‘why’ questions, so an initial task is to clarify accurate the nature of study questions in this regard” (Yin, 1994, pp. 20-21) (see Chapter One).

A very important step to be taken in this research study was to define and refine the research questions, so patience and sufficient time was allowed for reviewing the research literature which was involved in this task (see Chapter Three). A key part of this process was to understand the substance and form that lay behind these research

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60 Yin (1994, p. 5) observes that if the research questions focus chiefly on ‘what’ questions, two possibilities emerge. First, some types of ‘what’ questions are exploratory. This type of question is a justifiable rationale for conducting an exploratory study. The objective is to develop applicable propositions for further inquiry. The second type of ‘what’ question is actually a form of ‘how many’ or ‘how much’ line of inquiry. Identifying such results is more likely to favour survey or archival strategies than others. ‘How’ and ‘why’ questions are more explanatory and are likely to lead to the use of case studies. Such questions deal with the operational links which need to be traced over time, rather than frequencies or incidence.
questions (Yin, 1994). The form of the research question provided an important clue about the appropriate research strategy to be used. It was also necessary that the form of the research question best matched the strategy for this study. Case study was preferred for this research project because I was examining contemporary events, and no relevant behaviour could be controlled. Moreover, the strength of case study is “its ability to deal with a full variety of evidence – documents, artefacts, interviews and observations” (Yin, 1994, p. 8).

To determine the research questions that were most significant for making an original contribution to this research project, and to gain some precision in formulating these questions, required much preparation and progressive refinement over time. A key way for me to do this was to review the literature on relevant research topics. The literature review was “a means to this end, and not an end in itself” (Yin, 1994, p. 9). Once again, Yin (1994, p. 9) challenged me with the observation that

budding investigators think that the purpose of a literature review is to determine the answers about what is known on a topic; in contrast, experienced investigators review previous research to develop sharper and more insightful questions about the topic.

Thus, as an early career researcher I needed to learn to define and refine the respective of the research questions based on a careful study of the current research literature. Likewise, it was also important to make this research valid.

4.2.3 Validity of the research design

That research is valid\(^{61}\) means it is accurate, correct or true. Thus, it is necessary to recognise situations and circumstances which make this more likely to be valid, and the factors likely to lead to invalid research which I thought of as ‘threats’ to validity

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\(^{61}\) Validity refers to “the correctness or credibility of a description, conclusion, explanation, interpretation, or other sort of account” (Maxwell, 2005, p. 106).
For me a key strategy was to address validity threats after I had developed a tentative account rather than trying to eliminate such threats through the research design, which accords with scientific methods (Maxwell, 2005). My focus was on how to “rule out specific plausible alternatives and threats to [my] interpretations and explanations” (Maxwell, 2005, p. 107). For my purposes, citations of authorities and the invocation of standard approaches proved less important than establishing that the approaches I used could adequately deal with the particular threats in the context of my study. While data collection calls for “objectivity”, Corbin and Strauss (2008, p. 32) argue that objectivity is “a myth”, because researchers bring to the research situation their particular perspectives, training, knowledge and biases. Inevitably these aspects become woven into all aspects of the research process. For this case study I developed an operational set of measures. Prior specification of the significant, operational events that constitute ‘organisational change’ or ‘innovation’ was necessary so readers could tell “whether the recorded changes in a case study genuinely reflect critical events” (Yin, 1994, p. 34).

Internal validity is a concern for “causal (or explanatory) case studies, in which an investigator is trying to determine whether event x led to event y” (Yin, 1994, p. 35). Additionally, for case study research, the concern with internal validity may be broadened to the problem of making inferences. Basically, “a case study involves an inference every time an event cannot be directly observed” (Yin, 1994, p. 35). Thus, I had to infer that a specific event was caused by a certain earlier incidence, on the basis of interview and textual evidence collected as part of this case study. The

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62 The various possible threats to the validity of flexibly designed research (Robson, 2002) can be divided into three broad categories: reactivity, respondent biases and researcher biases. Reactivity refers to the way in which my presence as a researcher may have interfered in some way with the setting which formed the focus of this study. Respondent bias could have taken various forms, ranging from obstructiveness and withholding information. Researcher bias refers to what I as the researcher brought to this study in terms of assumptions and preconceptions which may have in some way affected the way in which I behaved in the research setting, perhaps in terms of the persons selected for observation or interview, the kinds of questions asked, or the selection of data for reporting and analysis (Robson, 2002).

A threat to providing a valid description lies in “the inaccuracy or incompleteness of the data”, while another is “imposing a framework or meaning on what is happening rather than this occurring or emerging from what you learn during your involvement with the setting” (Robson, 2002, p. 171).
analytic tactic of pattern-matching was one way used in this study to address internal validity (see Figure 10.1).

External validity deals with the problem of knowing whether this study’s findings are generalisable beyond this immediate case study. That is, can the results of this study of organisational innovation in Senior Learning based on the Queensland Minerals and Energy Academy be applicable to another site? The external validity problem is a major challenge in doing case studies. However, this case study relies on analytical generalisation, whereby I strived to “generalise a particular set of results to some broader theory” (Yin, 1994, p. 36). This too is captured in Figure 10.1 in Chapter Ten. However, analytical generalisation cannot be assumed to be automatic. The theoretical constructs provided by Hamilton (1989), Bernstein (1977) and Kliebard (1999) need to be “tested through replications of the findings in a second or even a third setting, where the theory has specified that the same results should occur” (Yin, 1994, p. 36).

I used multiple sources to enhance the rigour of this research. This strategy was used to reduce the risk of chance associations and of systematic biases due to a specific method, and to allow a better assessment of the generality of the explanations that I have developed. Maxwell (2005, p. 112) defines this technique which is called triangulation as “collecting information from a diverse range of individuals and settings, using a variety of methods”. I triangulated the evidence by accessing different data sources.

Triangulation\textsuperscript{63} implies that many sources of data are better in a study than a single source because multiple sources lead to a fuller understanding of the phenomena being studied. However, it is not true that triangulation automatically increases validity, because the methods that are triangulated may have the same biases and sources of invalidity. What I as a researcher had to do was to think about what particular sources of error or bias might exist, and look for specific ways to deal with

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\textsuperscript{63} Denzin (cited in King, 2010, p. 164) distinguishes four types of triangulation: \textit{data triangulation}: using a variety of data sources within a single study; \textit{investigator triangulation}: using more than one investigator in the study; \textit{methodological triangulation}: using different methods to address the same research problem; \textit{theory triangulation}: using different theoretical models to make sense of the same set of data.
this, rather than relying on the selection of methods (Maxwell, 2005). Nevertheless triangulation can help to counter the threats to validity. It opens up to examine possibilities of discrepancies and disagreements among the different sources. I have followed the advice of Bogdan and Biklen (2007, p. 116) who advocate describing “what you did rather than using the imprecise and abstract term triangulation”.

The validity of the research results is not guaranteed by following the procedures of triangulation. Brinberg and McGrath (cited in Maxwell, 2005, p. 105) state that “validity is not a commodity that can be purchased with techniques”. It depends on the relationship of the conclusions to data, and there are no methods that can completely assure that this has been captured. Maxwell (2005, p. 105) argues that “validity is a goal rather than a product; it is never something that can be proven or taken for granted”. Validity is also relative: it has to be assessed in relationship to the purposes and circumstances of the research. I tried to minimise the validity threats by triangulating the evidence used in this study in order to make the research design reliable.

4.2.4 Reliability of the research design

The goal of reliability is to “minimise the errors and biases in a study” (Yin, 1994, p. 36). One possibility for enabling this is to have another researcher to repeat one’s study, and to make this possible I have documented the procedures I followed in this study. My key approach to the problem of reliability has been “to make as many steps as operational as possible and to conduct research as if someone were always looking over [my] shoulder” (Yin, 1994, p. 37). This is because like any investigation this study must be capable of being audited. An auditor performs “a reliability check and must be able to produce the same results if the same procedures are followed” (Yin, 1994, p. 37). I found a good guideline for doing this case study was “to conduct the research so that an auditor could repeat the procedures and arrive at the same results” (Yin, 1994, p. 37).

Reliability in research is often associated with the use of standardised research instruments. The concern is whether the tool or instrument produces consistent
results. However, the non-standardisation of the methods for generating data in this study may preclude formal reliability testing. Even so, as an educational researcher I needed to concern myself with the reliability of my research methods. To this end, this involved “not only being thorough, careful and honest in carrying out the research, but also being able to show others that you have been” (Robson, 2002, p. 176). In a case study, the principles and procedures for ensuring the validity and reliability of the research are important. In this regard, data collection and analysis are very important and significant procedures for quality research. As indicated in the following sections, following the appropriate principles and procedures for data collection and analysis is the premise for a successful research.

### 4.3 Principles and procedures for data collection

This section explores three principles for data collection and the detailed procedures and strategies for collecting data for the study detailed in this thesis.

#### 4.3.1 Principles for data collection

Three principles guided the collection of the data analysed in this thesis, namely using multiple sources of data; creating a case study database; and maintaining a chain of evidence.

**Principle 1: Using multiple sources of data**

Using multiple sources of data strengthens case study research. This case study uses a variety of data to address the research questions from a range of perspectives. An advantage of using multiple sources of data was “the development of converging lines of inquiry, a process of triangulation” (Yin, 1994, p. 92). That is to say, the findings from this case study are “likely to be much more convincing and accurate [given that] it is based on several different sources of information, following a corroboratory mode” (Yin, 1994, p. 92). This study triangulated data sources (see Figure 4.1). While it is also possible to triangulate different researchers; to
triangulate theoretical perspectives on the same data set; and to triangulate research methods (Yin, 1994), these procedures were not attempted in this study.

Table 4.1 Research questions and multiple sources of data and data analysis methods with key concepts in this study

<table>
<thead>
<tr>
<th>Research questions</th>
<th>Data sources</th>
<th>Data analysis methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>What strategies do Government policies use to drive organisational changes in Senior Schools through VETiS?</td>
<td>Governments’ policies</td>
<td>Dramaturgical coding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Excerpt-commentary method</td>
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<tr>
<td></td>
<td></td>
<td>Theoretical analysis: vocationalism, schooling, education/production relationship</td>
</tr>
<tr>
<td>What do public representations of QMEA schools’ curricula say about the offering of VETiS-related courses and/or activities?</td>
<td>School Annual Reports</td>
<td>Evidentiary-commentary analysis</td>
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<tr>
<td></td>
<td></td>
<td>Theoretical analysis: schooling</td>
</tr>
<tr>
<td>What are the initiatives and investment of the QMEA schools and their teachers’ involvement in professional learning?</td>
<td>School Annual Reports</td>
<td>Evidentiary-commentary analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Theoretical analysis: vocationalism</td>
</tr>
<tr>
<td>What is the variety of public communication QMEA schools engage in about VETiS and the QMEA?</td>
<td>School newsletters</td>
<td>Evidentiary-commentary analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Theoretical analysis: vocationalism</td>
</tr>
<tr>
<td>What changes have occurred in students’ choices in immediate post-school destinations from 2008 through 2009 to 2010?</td>
<td>Next Step Surveys</td>
<td>Evidentiary-commentary analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Theoretical analysis: vocationalism, education/production relationship</td>
</tr>
</tbody>
</table>

The multiple sources of data provided multiple ‘measures’ of the same phenomenon, organisational change in Senior Secondary Schooling associated with VETiS reforms. While case studies using multiple sources of data are rated more highly in terms of their overall quality, they are not without challenges.

First, the collection of data from multiple sources is “more expensive”, especially in terms of time than if data were only collected from a single source (Yin, 1994, p. 94). Second, the researcher needs to know “how to carry out the full variety of data collection techniques” (Yin, 1994, p. 94). Therefore, as the researcher I needed to become “well versed in a variety of data collection techniques so that a case study can use multiple sources of evidence” (Yin, 1994, p. 94). However, without such multiple data sources, the advantages of the case study reported here would have been lost. This thesis focuses on publicly available data because of the importance now attached to making an increasing array of information about education public, ostensibly for accountability purposes. Furthermore, it is important for Australian educational researchers to make better use of this information, and to learn more
productive ways to do so, and that this study represents an attempt to do so in a field where little effort has been undertaken in this regard to date.

Principle 2: Creating a case study database

A second principle employed in this study concerned the organisation and documentation of the data that was collected. For this study, documentation consisted of two separate collections, namely the verbatim transcripts of the interview (see Appendix 7) and field notes produced by the researcher, and an array of publicly available documents, for example School Annual Reports, Next Step survey and school newsletters.

Case study data is not synonymous with the evidence analysed in this thesis. For this case study I developed a formal database, which theoretically other researchers can directly review and is not limited to what is in this thesis. While this database increases the reliability of the study (Yin, 1994), this thesis contains enough data so that readers can draw independent interpretations and conclusions about it.

Field notes were a key component of the database for this study. The notes were produced as a result of my interviews, observations or document analysis. These notes have been stored in such an organised and categorised manner that other educational researchers may retrieve them efficiently at some later date (Yin, 1994).

Because many documents were collected during the course of this study, it was helpful to create a document profile (see Appendix 10). In addition, because these documents differed in their importance, I created a primary file and a secondary file for these documents, so they could be readily retrievable for later analysis. The documents consist of materials collected from the sites studied by the researcher (Yin, 1994). These annotations made storage and retrieval efficient, which also means that later researchers can check or share them.

Principle 3: Maintaining a chain of evidence
In order to increase the reliability of the data used in this case study, it was important to maintain a chain of evidence. The principle was “to allow an external observer to follow the derivation of any evidence from initial research questions to ultimate case study conclusions” (Yin, 1994, p. 98). Moreover, external observers can trace the steps in either direction, that is, either from my findings back to the research questions or from the research questions to my findings. This thesis makes extensive citations to the case study database. Second, actual evidentiary excerpts from the database have been used with indications of the circumstances under which it was collected. Third, these circumstances are consistent with ethical procedures and questions in the case study protocol, showing that the data collection followed the procedures stated in the protocol. Finally, the protocol indicates the link between the content of the protocol and the research questions (Yin, 1994).

The protocol includes details about the raw data, research journal and details of coding and data analysis. However, while using such strategies undoubtedly helped in ruling out threats to validity, there is no foolproof way of guaranteeing validity. Most threats to validity in flexible design research are dealt with after the research is in progress, using evidence collected after developing a tentative account (Robson, 2002). I followed these principles when collecting the case study evidence.

4.3.2 Procedures for data collection

One of the virtues of educational research is that there are many alternative sources of data. The researcher can use one or several of these sources alone or in combination, depending upon the research problem being investigated. Other considerations are the desire to triangulate or obtain various types of data on the same problem (Corbin & Strauss, 2008).

Typically, evidence for case studies may come from six key sources, all of which have both strengths and weaknesses (Yin, 2009). In addition to documentation source mentioned in the following section, there are five other sources.\(^6^4\) In this case study, the sources of evidence include:

<table>
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<tr>
<th>Source of Evidence</th>
<th>Strengths</th>
<th>Weaknesses</th>
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\(^6^4\) Five Sources of Evidence: Strengths and Weaknesses (Yin, 1994, p. 80)
data collection involved two steps: document collection and interview. The primary evidence comes from documents, while interview data provided the researcher with necessary background knowledge for this study. Documents collected for this research included Governments’ policies, School Annual Reports, Next Step survey and school newsletters.

4.3.2.1 Document collection

Documentation possesses the strengths of being stable (reviewed repeatedly), unobtrusive (not created as a result of the case study), exact (containing exact names, references and details of an event) and broad coverage (long span of time, many events, and many setting) (Yin, 2009). Documents of various kinds may usually be used to confirm and supplement data from other sources, such as interviews or surveys. However, I used public documents as primary data to do this research and used interviews “as supplementary data to see how the documents get interpreted by real people instead of by an imaginary audience” (Bogdan & Biklen, 2007, p. 133). Documents were the key focus of my data collection plan, with interviews as a supplement. Systematic searches for relevant documents on the websites were important in this project’s data collection plan. However, I was careful to heed Yin’s (1994, p. 82) warning to educational researchers against mistaking any of these documents as “containing the absolute truth”. Thus, when analysing the documents used in this study I understood that they were written for specific purposes and specific audiences, and not meant as only data for use in this case study.

| Archival Records | - [same as above for documentation]  
|                  | - precise and quantitative  
|                  | - [same as above for documentation]  
|                  | - accessibility due to privacy reasons |
| Interview        | - targeted – focuses directly on case study topic  
|                  | - insightful – provides perceived causal inferences  
|                  | - bias due to poorly constructed questions  
|                  | - response bias  
|                  | - inaccuracies due to poor recall  
|                  | - reflexivity – interviewee gives what interviewer wants to hear |
| Direct Observation| - reality – covers events in real time  
|                  | - contextual – covers context of event  
|                  | - time-consuming  
|                  | - selectivity, unless broad coverage  
|                  | - reflexivity, event may proceed differently because it is being observed |
| Participant Observation | - [same as above for direct observation]  
|                        | - insightful into interpersonal behaviour and motives  
|                        | - [same as above for direct observations]  
|                        | - bias due to investigator’s manipulation of events |
| Physical Artifacts | - insightful into cultural features  
|                     | - insightful into technical operations  
|                     | - selectivity  
|                     | - availability |
Public documents can include “memos, minutes from meetings, newsletters, policy documents, proposals, codes of ethics, dossiers, students’ records, statements of philosophy, news releases, brochures, pamphlets, and the like” (Bogdan & Biklen, 2007, pp. 136-7). When public, these materials represent the views of the promoters, are deliberately written for public consumption, and present a positive picture of the organisation’s functions (Bogdan & Biklen, 2007). Most likely organisational administrators review and approve these documents before they are made public. I used public documents to understand how the QMEA was defined by various stakeholders, especially those at the hub and the nodes (the schools). These public documents were readily available via the websites of the organisations concerned. None were protected as private or secret (Bogdan & Biklen, 2007). All these documents were for external communication, that is materials produced by these organisations for public consumption. Even so, this material was useful in understanding official perspectives on the QMEA’s organisational aspects, especially curriculum, teacher professional development and public communication. Some external documents were good indicators of the QMEA support, while others represented expressions of its value by constituent schools (Bogdan & Biklen, 2007).

4.3.2.2 Interviews

Interview data gathered from the key figures in this study provided relevant and necessary background information for someone new to Australian Senior Secondary education. The primary data for this study was the publicly available documents through the relevant organisations. Interviews done for this research included those with school principals, VET coordinators, industry representatives, partnership managers and VETiS graduates. I conducted eighteen interviews but only selected the quotations cited in the evidentiary Chapters because of their relevance and persuasiveness with respect to the research questions addressed in this thesis; further analysis of this interview data will to be undertaken in future studies. The first problem I faced in doing my fieldwork was getting permission to conduct my study. This was done initially through an ethics application to the University of Western Sydney first, then to the Educational Department of the Queensland Government, and finally to the specific schools and agencies where I conducted interviews.
In the past some may have tried to avoid this problem by doing their research secretly, but I choose an overt approach, making my research interests known while seeking the cooperation of prospective interviewees. It is important to get the access to the QMEA and some of its schools in order to interview partnership managers, school principals and VET coordinators. They had important things to say about VETiS reforms to the organisation of Senior Secondary Schools. Their influence was felt in a variety of ways. In negotiating permission for access, I had to be persistent, flexible, creative and sensitive.

For instance, the principal’s support for my conducting interviews carried a great deal of weight, with him or her often being “the key gatekeeper” (Bogdan & Biklen, 2007, p. 85). When negotiating entry, communicating with such gatekeepers may have some problems, but for me it also offers some advantages. Bogdan and Biklen (2007, p. 86) argue that “gatekeepers are usually receptive, but often cautious and guarded depending on the status of both the researcher and the prospective interviewees”. Thus, it was a good idea for me to emphasise that I was a doctoral candidate and sought their sympathetic cooperation to do my research. At the start of the interview I had anticipated that interviewees would ask questions, such as what are you actually going to do? Will you be disruptive? What are you going to do with your findings? Why us? What will we get out of this? Rightly so, school personnel feared that my presence may interfere with their work. I explained to them how important my research is and that I would be unobtrusive and not interfere with what the school normally does. I also told them that I did not plan to use anyone’s name and that I would disguise their school – both have been anonymised. They also wanted an explanation as to why they or their organisations were singled out for my research. I was honest and gave positive comments about why I had chosen them. Many school personnel indicated it if they expected reciprocity. They figured that if they provided me access to what they knew, they should get something in return, such as the research findings or publications. I told them that I would inform all of them about the availability of my theses on the Australian Digital Theses Database (http://library.uws.edu.au/adt.php) when it is finalised and email them copies of journal articles.

Sensitivity: Sensitivity means “having insight, being tuned in to, being able to pick up on relevant issues, events, and happenings in data” (Corbin & Strauss, 2008, p. 32). This meant I had to be able to present the view of participants and take their perspectives seriously through becoming familiar with their workplaces and immersion in the data they provided (Corbin & Strauss, 2008). I developed this capability over time through close association and work with both the data and interviewees. Through alternating processes of data collection and analysis, the meanings and significance of the interview data, often illusive at first, became clearer and I began to see the issues and problems from the perspectives of participants. Sensitivity involved a fascinating interplay between myself as researcher, the data and the interviewees (Corbin & Strauss, 2008). Forcing the researcher’s ideas on data was more likely to occur if I ignored the relevance of myself in the analytical process and thought that it was only the data talking, rather than the data talking through my ‘eyes’ as the researcher. The more aware I was of my involvement in the data analysis, the more I could see how I shaped the interpretations. The interview experiences enhanced my sensitivity, enabling me to understand the significance of some things more quickly because I did not have to spend time gaining familiarity with surroundings or events. Background knowledge gained through the experience of conducting the interviews enabled me to be more sensitive to concepts in data, and also enabled me to see connections between concepts (Corbin & Strauss, 2008, p. 34). Three things emerged as important from this experience. First, always compare knowledge and experience against data, and never lose sight of the data. Second, always work with concepts explaining their properties and dimensions, because it kept me focused on the similarities and differences in events and prevented me from being overwhelmed by the data. Third, it is not my perception of events that matters, it is what participants said that is important (Corbin & Strauss, 2008, p. 33).
The interviews were necessary sources of data for this case study being used to “gather descriptive data in the subjects’ own words so that the researcher can develop insights on how subjects interpret some piece of the world” (Bogdan & Biklen, 2007, p. 103) though they were not the main data in this thesis. The main data were from the public documents on the websites. My interviews were driven by open-ended questions (see Appendix 2) in so far as I asked key informants for the facts of a matter as well as for their opinions about events.  

4.3.2.3 Strategies for interviewing

For most of my interviews I did, the interviewee was usually a stranger. A good part of the initial work involved “building a relationship, getting to know each other, and putting the subject at ease” (Bogdan & Biklen, 2007, p. 103). Most of my interviews began with small talk. The purpose of this chit-chat served to develop rapport. In situations where I and the informant were strangers, early in the interview I briefly informed them about my purpose, and made assurances that what was said in the interview would be treated confidentially.

I also asked follow-up probes, for example inviting the informants “to propose his or her own insights into certain occurrences and [used] such propositions as the basis for further inquiry” (Yin, 1994, p. 84). The role of interviewees was “one of an ‘informant’ rather than a respondent” (Yin, 1994, p. 84), that is they were key figures who well-informed about the issues I was investigating. However, I was careful to avoid becoming excessively dependent on any key informant, especially because of the interpersonal influence that such an informant may have on me, making documents the key source of data for this study. I drew multiple interviewees as sources of data and searched them and the documents as carefully as possible for contrary evidence (Yin, 1994).

In my “focused interview” (Yin, 1994, p. 84), I interviewed the informants for up to one hour, tape-recording our purposeful conversations and transcribing them in full for analysis. Recording the interviews provide a more accurate record than trying to make notes during or after the interviews. However, I was mindful of Yin’s (1994, p. 86) suggestions that an audio-recorder should not be used when (a) an interviewee refuses permission or appears uncomfortable in its presence, (b) there is no specific plan for transcribing or systematically listening to the contents of the tapes [or this is case wav files67], (c) the investigator is clumsy enough with mechanical devices so that the tape recorder [or in this case a digital audio recorder] creates a distraction during the interview itself, or (d) the investigator thinks that the tape recorder [ie. digital recorder] is a substitute for ‘listening’ closely throughout the course of an interview.

My recording of the interviews was a help rather than being a hindrance. But I considered the interview only as “verbal reports” (Yin, 1994, p. 85), because they were subject to familiar problems of bias, poor recall, and poor or inaccurate articulation – and tested against the documentary evidence I collected and analysed. Several strategies played an important role in my conduct of the interviews for this study.
While the interviews were open-ended and were undertaken in a conversational manner, the interviews were focused around particular topics being guided by specific questions (see Appendix 2). On the structure/unstructured continuum my interview questions were open-ended but semi-structured, with responses being followed by probes. I encouraged the interviewee to talk about the area of interest and then probed more deeply, picking up on the topics and issues the informants initiated. Thus, the interviewees played a strong role in “defining the content of the interview and the direction of the study in this type of interview” (Bogdan & Biklen, 2007, p. 104).

There were no rules that I could always apply across all the interviews. I followed Bogdan and Biklen’s (2007, p. 105) advice, that is “to listen carefully [and] treat every word as having the potential to unlock the mystery of the subject’s way of viewing the world”. If I do not understand what the respondent is getting at, I asked

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68 With the semi-structured interviews I obtained comparable data across interviewees, but I may have lost the opportunity to better understand how the interviewees themselves structure the topic at hand. At the beginning of my research project, it was important to use the more free-flowing, exploratory interviews because my purpose at that point was to get a general understanding of a range of perspectives on a topic. I found good interviews were those in which the interviewees were at ease and talked freely about their points of view, producing rich data that revealed their perspectives. A good interview can be ascertained by looking at the transcript. Bogdan and Biklen (2007, p. 108) offer the following criterion: if the parts labelled ‘subject’ are long and those designating the interviewer are short, you usually are looking at good, rich interview material. If the subject’s paragraphs are interrupted and there are long sections where the researcher’s comments go on beyond a couple of lines, chances are the interview is weak. I worked at being a good interviewer by communicating personal interests and by being attentive to the interviewees, nodding my head, and using appropriate facial expressions to communicate. I asked for clarifications when needed. I probed the interviewee to be specific, asking for examples, definitions and/or explanations of points that were made, because people being interviewed tended “to offer a quick run-through of events” (Bogdan & Biklen, 2007, p. 105). I responded to the interviewee’s particular statements by asking for details, encouraging them to elaborate (Bogdan & Biklen, 2007). A key strategy for me was to avoid as much as possible questions with ‘yes’ or ‘no’ answers. As Bogdan and Biklen (2007) advised particulars and details came from probing questions that required exploration. One of the more difficult aspects of interviewing for me as a beginning researcher was dealing with the silences during the interviews. Gradually I learnt not to fear silence. Silences enabled interviewees to get their thoughts together and to direct some of the conversations. It is a poor habit for interviewers to “interrupt subjects and change the direction of the conversation” (Bogdan & Biklen, 2007, p. 105). Judging the quality of data I gained from the interviews was sometimes difficult. Often what I initially thought was a wonderful interview turned out to be disappointing when the transcript was analysed, while interviews I perceived to be bad sometimes produced good transcripts. This occurred because my judgements about the interviews were a function of how I felt about the interviewee and how comfortably the conversations proceeded. This did not tell me much about the richness of data revealed in the interviewee’s account (Bogdan & Biklen, 2007).
for explanations. Because interviewing requires flexibility, I tried different techniques including jokes or gentle challenges to build rapport.

In leaving the field I eased out of it by communicating via email less frequently at first and then eventually stopping altogether, rather than abruptly ending this phase of my research. This transition seemed helpful to both myself as a researcher and the participants. I kept fieldnotes of what I heard, saw, experienced and thought in the course of collecting and reflecting on the interview data when doing this study. I kept detailed, accurate and extensive fieldnotes as an important supplement to my other data-collecting methods.

Bogdan and Biklen (2007, p. 106) advise that good interviewing involves deep listening. The goal of understanding how the person you are interviewing thinks is at the centre of the interview. The researcher has to be captive to the larger goal of the interview. The researcher must always be prepared to let go of the plan and jump on the opportunities the interview situation presents. While good listening usually stimulated good talking, other forms of positive reinforcement also worked too. My approach to open-ended interviewing involved treating each person I was interviewing as an “expert” (Bogdan & Biklen, 2007, p. 107). I explained my project to each interviewee and described what I was interested in and why I was interviewing him or her. This helped orient our conversation. It is not unusual for researchers to come across persons who agree to be interviewed but have little to say once the interview begins, leaving the researcher uncertain about where to go next. Corbin and Strauss (2008, p. 28) advise that in this case “it is good to have backup questions”. Often the problem is that the person just does not know what to say, or is uncomfortable with the interview situation. Asking a few questions often relaxes the participants and stimulates his or her memory so that he or she becomes more talkative and spontaneous. After finishing the interviews, I knew I had to leave the field skilfully, not in the least because I might have had to return for more information.

Often some researchers stop data collection only to find later that more fieldwork is needed, thus requiring them to return to the field. To prepare for this contingency, I knew it was important when stopping my fieldwork to “leave the door open for such returns” (Bogdan & Biklen, 2007, p. 116). I maintained ties with some of the key people I interviewed via email, keeping up with their activities and situations, which also helped in better understanding the interview data as I analysed it. In the process of conducting these interviews, I found making field notes immediately afterwards was conducive to my understanding and interpreting the interview data later.

After conducting the ‘taped’ interviews I captured the meaning and context of the interviews by writing fieldnotes. The audio recorder missed the sights, smells, impressions and extra remarks said before and after the interviews. My fieldnotes provided a personal log that helped me “to keep track of the development of the project, to visualise how the research plan [had] been affected by the data collected, and to remain aware of how [I was] influenced by the data” (Bogdan & Biklen, 2007, p. 119). My double entry fieldnotes consisted of two kinds, descriptions that provided “a word-picture of the setting, people, actions, and conversations as observed”, and reflections that captured more of my “frame of mind, ideas, and concerns” (Bogdan & Biklen, 2007, p. 120). The descriptions represented my best effort to record the details of what occurred in the field. My goal was to capture a slice of life, striving for accuracy under these limitations. Whatever I observed I presented in detail rather than summarised or evaluated. It was particularly important that these descriptions did not use abstract words. My reflective fieldnotes contain more personal reflections about the course of my inquiry. I emphasised speculation, feelings, problems, ideas, hunches and impressions. I also included material in which I laid out plans for future stages in my research as well as clarifying my understandings of the study. In order to do a good study, I had to be self-reflective and keeping an accurate record of the research methods, procedures, and evolving analysis helped; this included notes from meeting with my principal supervisor – or research educator. Of course it was difficult to get the right balance
4.4 Principles and procedures for analysing case study evidence

In analysing data, certain principles were followed in order to make a high quality analysis. The conceptual framework was developed before collecting and analysing the documents and interview transcripts (see Chapter 3). My analytical procedures focused on coding and thematising, explanation-building analysis, policy analysis and report writing.

4.4.1 Principles for case study data analysis

No matter which specific analytic strategies were used, I tried to make sure that the analysis was of the highest quality. Yin (1994, p. 123) provides four principles for doing so, namely:

- first, your analysis should show that it relied on all the relevant evidence.
- Second, your analysis should include all major rival interpretations.
- Third, your analysis should address the most significant aspect of your case study.
- Fourth, you should bring your own prior, expert knowledge to your case study.

To be specific, for the first principle, this meant that my analytic strategies had to be exhaustive. This is to say, I worked to ensure that analytic strategies were thorough, and the analysis would be comprehensive and complete.

As to the second principle, if there was an alternative explanation for one or more of the study findings, I have discussed these rival points of view in the concluding Chapter as the rebuttals. I asked myself “is there evidence to address this rival? If so, what are the results? If not, how can the rival be restated as a loose end to be investigated in future studies” (Yin, 1994, p. 123)?

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between reflective and descriptive material. My reflections were “a means to a better study, not an end in themselves” (Bogdan & Biklen, 2007, p. 122). After finishing collecting the evidence – but mostly during the course of its collection, the next step I engaged in was its analysis.
For the third principle, I analysed all the data first, and then I developed this thesis to present the key research findings, addressing only the most significant issues.

The fourth principle means that where I have analysed similar issues in the past I linked these to current thinking and debates about the case study. Specifically, this is where I have used my prior research techniques gained in China when doing research.

However, the quality of this case study and its analysis is not dependent exclusively on these principles. Although they are important, it has been equally important for me to demonstrate “expertise in carrying out the analysis” (Yin, 1994, p. 124). Within this thesis, I provided extensive analysis of documentary and interview evidence to show the sources for my key findings. To keep the narrative reading smooth, much of the data is presented as evidentiary excerpts, Figures and Tables, although some had to be relegated to footnotes or appendixes. By following these strategies this case study seeks to give “appropriate respect and recognition” (Yin, 1994, p. 124) to the data and the people who provided it. Guided by these principles, I analysed the data I collected.

4.4.2 Procedures for analysing case study evidence

This section elaborates on the procedures of data analysis I employed in this study. As already noted, before analysing the data, I developed a conceptual framework first (see Chapter 3), and then coded and thematised the data, that is the documents and interview transcripts. Afterwards I built explanations and interpretations for the data. Policy analysis was separately done by using coding method explained below. Finally, this section presents an account of report writing because writing is a method integral to producing research.

4.4.2.1 Developing a conceptual framework

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72 Yin (2003) put forward three levels of analysing case study evidence: general analytic strategies; dominant modes of analysis; and modes of analysis. Apparently some investigators start case studies without having the vague idea about how the evidence is to be analysed. This is a serious mistake.
My first strategy was to develop a conceptual framework that led to this case study and provided the tool for the conceptual analysis of the data (see Chapter Two). As Yin (1994, p. 104) puts it, this conceptual framework “shaped the data collection plan and therefore [gave] priorities to the relevant analytic strategies”. This theoretical framework guided the case study analysis and helped to “focus attention on certain data and to ignore other data” (Yin, 1994, p. 104). It also helped to organise the most significant aspects of the case study, that is the claim to making an original contribution to knowledge as advanced in this thesis, and to explore alternative explanations which have been examined.

The second analytic strategy I used was to develop a descriptive framework for organising the case study analysis. This descriptive approach helped to identify links to be analysed within and between the different types of evidence and the categories generated through the analysis. The descriptive approach was used to identify: (a) a type of event that could be developed and (b) patterns within and between certain levels of data analysis and (c) explanations concerning organisational innovation in Senior Learning through reforms in VETiS (Yin, 1994).

Looking for emergent patterns among the data was undertaken during the first round of analysis. The second round of analysis focused on searching for patterns that might “generate new insights and usually uncovered patterns” that might not have been obvious in the initial round of analysis (Bloomberg & Volpe, 2008, p. 131). Finding patterns and themes was one result of this data analysis, whereas finding counter-evidence and possibilities for rebuttals was another. I wanted to know how useful my research findings were in illuminating the research questions being explored and how central they were to explain the phenomenon under study.

A related analytic strategy used in this study was to conduct a time-series analysis. Part of this study was concerned with the course of events and a sequence or ‘time-

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73 The logic underlying time-series data analysis is the match between a trend of data points compared with (a) a theoretically significant trend specified before the onset of the investigation, versus (b) some rival trend, also specified earlier, versus (c) any trend based on some artefact or threat to internal validity (Yin, 1994, p. 111).
series’ of conditions. Tracing changes in them over time strengthened this data analysis.

My preparation for conducting this case study research and eventually preparing this thesis was to have these general analytic strategies, without which both would have proceeded with great difficulty.

4.4.2.2 Coding and thematising the case study data

The initial step in data analysis involved reading, coding and thematising the documents and the interview transcripts that had to be analysed. During this process, I wrote concepts, notes and memos on what have been read in the data, and developed tentative ideas or themes about categories and relationships (Maxwell, 2005). Reading and thinking about the documents and transcripts, writing memos, developing coding categories and applying these to the data, and analysing the narrative structures and contextual relationships were all important elements in my data analysis. I had planned their use in order to answer my research questions (see Chapter One) and address validity threats (Maxwell, 2005).

Coding is an analytical technique taking raw data and progressively raising it to a conceptual level. It involved interacting with data using techniques such as asking questions about the data and making comparisons between data, and in doing so deriving concepts to stand for key themes in the data. I thought of coding as “‘mining’ the data, digging beneath the surface to discover the hidden treasures contained within data” (Corbin & Strauss, 2008, p. 66). The main categorising strategy in this research was first open coding, and then focused coding. The goal of my coding was “not to count things, but to ‘fracture’ the data and rearrange them into categories that facilitate comparison between things in the same category and that aid in the development of theoretical concepts” (Maxwell, 2005, p. 96).

74 There were a number of analytic options to consider: (1) memos, (2) categorising strategies (such as coding and thematic analysis), and (3) connecting strategies (such as narrative analysis) (Maxwell, 2005, p. 96).
Coding was a necessary aspect for me to organise the data and interpret what the data said. Berg (2007, p. 319) observes that “the more organised and systematic the coding schemes, the easier it is to allow the data to talk to you and inform you about various research-related questions you might have”. My analysis started “as the data begins to indicate the necessary categories and codes to use and as these elements begin to form patterns and conceptual realities each time the researcher reads and rereads transcripts, undertakes another day of fieldwork, or reviews some documents” (Berg, 2007, p. 319).

When I read through the data I had collected, certain words or phrases in the ways of thinking and events stood out as recurring patterns. I developed a coding system by searching through the data “for regularities and patterns as well as for topics the data cover, and then [wrote] down words and phrases to represent these topics and patterns” (Bogdan & Biklen, 2007, p. 173). These words and phrases provided my coding categories. They provided a means of sorting the descriptive data collected so that the material bearing on a given research question could be physically separated from other data. Developing a list of coding categories after the data had been collected and being ready to mechanically sort them was a crucial step in my data analysis.

The central purpose of my open coding was to inquiry widely. Although interpretations, questions and even possible answers emerged through coding, it was important to hold these as tentative. A solution to my anguish as a novice investigator was to “believe everything and believe nothing” while undertaking open coding (Berg, 2007, p. 317). To understand open coding, I carefully and minutely read the documents line by line and word by word to determine the concepts, themes and categories that fitted the data. These concepts and themes, once uncovered or generated, were tentative. I continued working with and thinking about the data, questioning it even as some plausible answers began to emerge. These questions led me to other issues and further questions concerning various conditions, strategies, interactions, and consequences of the data (Berg, 2007).

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75 Berg (2007, pp. 317-9) suggests four basic guidelines for open coding: ask the data a specific and consistent set of questions; analyse the data minutely; frequently interrupt the coding to write a theoretical note; and never assume the analytic relevance of traditional variables.
I found that there was no single best way to code the data. There are actually many ways of coding, because it is undertaken for a variety of purposes. According to Saldaña (2009, p. 45), first cycle analytical methods are those processes that happen during the initial coding of data and are divided into seven subcategories: grammatical, elemental, affective, literary and language, exploratory, procedural and themeing the data. Second cycle analytical methods are more challenging because they require such analytic skills as classifying, prioritising, integrating, synthesising, abstracting, conceptualising, and theory building. Second cycle coding methods are advanced ways of reorganising and reanalysing data coded through first cycle methods.

After finishing doing the open coding, I undertook focused coding, searching for the most frequent or significant initial codes to develop “the most salient categories” in the data corpus – that is those that pointed to opportunities for making an original contribution to knowledge – and this required “decisions about which initial codes make the most analytic sense” (Charmaz cited in Saldaña, 2009, p. 155). For this research I used a novel approach to code Government policy which is explained in the next section.

4.4.2.3 Policy analysis

There are different ways for analysing policies, such as critical discourse analysis or content analysis, but it was not easy for me, an early career researcher to decide to

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76 Berg (2007) distinguishes between three types of coding. The first type of coding involves the storage of information and is called descriptive coding. The second type is coding used to gather material by topic. The third approach to coding is used when the goal is the development of concepts called analytic coding (Berg, 2007, p. 319). Bogdan and Bilkin (2003) offer a virtual typology of code terms, including setting/context codes, definition of the situation codes, process codes, activity codes, event codes, strategy codes, relationship and social structural codes, narrative codes, and methods codes.

77 Second cycle coding methods each require fitting categories one with another to develop a coherent synthesis of the data corpus. Before categories were assembled, the data were recoded because more accurate words or phrases were discovered for the original codes; some codes were merged together because they were conceptually similar; infrequent codes were assessed for their utility in the overall coding scheme; and some codes that seemed like good ideas during first cycle coding were dropped all together because they were deemed to be ‘marginal’ or ‘redundant’ after the data corpus had been fully reviewed (Saldaña, 2009, p. 149).
undertake an unfamiliar – and perhaps uncommon – method to analyse policy because this brings with it difficulties, uncertainties and possible objections. However, it was necessary and important for me to try to improve my use of a variety of data analysis procedures. For this reason, in Chapter Five, I used ‘excerpt-commentary unit analysis’ (Emerson, Fretz & Shaw, 1995) and the dramaturgical coding method (Saldaña, 2009) to analyse Government policies.

‘Excerpt-commentary unit’ analysis (Emerson, Fretz & Shaw, 1995) focuses attention on an analytic point; illustrates this through a descriptive excerpt introduced by relevant orienting information; and explores and develops ideas through commentary grounded in the details of the excerpt (Emerson, Fretz & Shaw, 1995). This method is better for analysing the policies for this study because the policies are not wholly oriented to VETiS and too long to use dramaturgical approach. Only VETiS related points were selected for analysis.

A “dramaturgical coding” (Saldaña, 2009, p. 102) method – not commonly used to analyse policies – was used to analyse one VETiS policy. Dramaturgical coding is an approach to analysing evidence, such as naturalistic observations and interviews, as a “social drama” (Saldaña, 2009, p. 102). Play scripts represent planned scenarios with stage directions; policy texts might be read likewise. It is claimed that “life is perceived as a ‘performance’, with humans interacting as a cast of characters in conflict” (Saldaña, 2009, p. 102). Dramaturgical coding applies the terms and conventions of character, play script, and production to analyse data such as a policy text. The dramaturgical terms include items such as:

1. Participant-actor objective – motives in the form of action verbs: OBJ
2. Conflicts or obstacles confronted by the participant-actor which prevent her from achieving her objectives: CON
3. Participant-actor tactics or strategies to deal with conflicts or obstacles and to achieve her objectives: TAC
4. Participant-actor attitudes toward the setting, others, and the conflict: ATT
5. Emotions experienced by the participant-actor: EMO
6. Subtexts, the participant-actor’s unspoken thoughts or impression management, in the form of gerunds: SUB (Saldaña, 2009, pp. 102-103)
Dramaturgical coding is suitable for exploring intra- and inter-personal experiences and actions because it attunes the researcher to the qualities, perspectives and drives of participants as expressed in their documents. It also provides a deep understanding of how humans interpret and manage ideas, thoughts, emotions, attitudes, conflicts and problems as expressed in documents. According to Saldaña (2009), dramaturgical coding is best applied to “self-standing, inclusive vignettes, episodes, or stories in the data record” (Saldaña, 2009, p. 103). In contrast, “versus coding” is appropriate for “policy studies, discourse analysis, and qualitative data sets that suggest strong conflicts within, among, and between participants” (Saldaña, 2009, p. 94). For the purposes of this study dramaturgical coding method is better than the Versus Coding method because the researcher using the Versus Coding method may deliberately ‘take sides’ with a group and its issue. The information conveyed is just between the two sides which is relatively rough. However, using the dramaturgical coding method, the researcher can explore in detail not only the conflicts, but also some important elements such as the objectives, attitudes, emotion and strategies expressed in the policy. To this end, I apply this dramaturgical coding method to the analysis of policy. This approach does not seem to have been used previously to explore the organisational innovations communicated via this particular policy New Framework for Vocational Education in Schools, 2001. For the purpose of the policy analysis in Chapter Five, the terms and conventions given above by Saldaña (2009) have been revised by the researcher as follows:

1. Objective – motives in the form of doing: Obj
2. Conflicts – issues preventing the achievement of objectives: Con
3. Tactics – strategies for dealing with conflicts and achieving objectives: Tac
4. Attitude - thoughts about objectives, conflicts and tactics: Att
5. Emotion – feelings towards objective, conflicts and tactics: Emo
6. Subtexts – unspoken or implied thoughts or impressions: Sub

The purpose of these revisions was to better suit policy analysis I undertook. After coding the data, it was necessary to explain the data by interpreting it theoretically.

4.4.2.4 Explanation-building analysis
My goal of ‘explanation-building’ was to analyse the case study data to build an explanation about the case. To ‘explain’ organisational changes in Senior Learning through reforms in VETiS, there was a need to establish a set of links between different categories of evidence, but the links were complex and difficult to establish in any precise way. As in most case studies, this explanation-building was presented in this thesis in a narrative form, and in which the explanations related to theoretically significant propositions (Yin, 1994). The final explanation presented in this thesis was a result of a series of iterations (see Figure 10.1), so it was not fully specified at the beginning of the research proposal. Rather, for this case study I examined the evidence, revised my theoretical propositions and examined the evidence again from a new perspective in what Yin (1994, p. 111) called an “iterative mode”. My objective was to show how these explanations were built, given the actual case study data. I was warned beforehand that this approach to case study analysis can be troublesome. For instance, Yin (1994, p. 111) notes that “as the iterative process progresses, a researcher may slowly begin to drift away from the original topic of interest”. Constant reference to the original purpose of the inquiry and the possible alternative explanations helped me to reduce this potential problem.

After finishing all this analysis, it is time to covert all that I had written into this thesis so I could report of my contributions to knowledge, especially my key findings.

4.4.2.5 Report writing

It is the responsibility of the researcher to write a report of a research project. The report of the research includes the argument advanced in the study, the role of the researcher, provide an introduction to the study, explain and structure the thesis and provide conclusions or key findings. The writing I did to achieve this is explained in this section.

Argument

This thesis contains a clear focus – an argument that specifies its purpose and evidentiary Chapters fulfilling the promise to explore it. Coming up with this focus meant deciding what is “the most significant aspect of your case study” (Yin, 1994, p. 123); that is, what was my original contribution to knowledge. The argument or
thesis presented in Chapter One that takes on this issue. The thesis or a proposition put forth in Chapter One is argued in the following Chapters. The thesis is developed by comparing what my evidence has revealed and what the research literature says about the subject (Bogdan & Biklen, 2007).

Part of the argument takes the form of themes. The themes emerged from my data: “some signal trend[s], some master conception[s], or key distinction[s]” (Mills cited in Bogdan & Biklen, 2007, p. 200). The themes have been “formulated at different levels of abstraction from statements about particular kinds of settings to universal statements about human beings, their behaviour, and situations” (Bogdan & Biklen, 2007, p. 200). Some trends are positive others are negative. The key concepts relate to the historical organisational changes of schooling, the integration or separation of education and production, and vocationalism. The key distinctions relate to the connections among the hub-and-spoke model as manifest in the curriculum, teacher professional development, public communication and student outcomes.

The most crucial for deciding what my thesis would be was the data I had collected and analysed. I could not choose to focus my argument in an area in which my data were thin. To establish my argument I looked over my coding categories to see which had yielded the greatest amount of data. I read through the data to see if I could identify some common thread. I read over the memos I had written to see if I could make connections between codes or themes (Bogdan & Biklen, 2007) – and what novel about the knowledge I had provided.

When I started writing with this argument I tested out whether it would work as I proceeded with the writing. I was open to further discoveries and to flashes of insight that were not attainable when first doing the analysis. Drafting each Chapter was necessary before I see the light of a workable argument. The title of my thesis reveals my argument (Bogdan & Biklen, 2007).

Researcher presence

In this Chapter I have not used the less personal ‘we’ or ‘the researcher’ but ‘I’ because it seems more honest and direct. Using ‘the researcher’ seems to be a
pretentious device, because I was the individual who “with particular points of view designed and carried out the research” (Bogdan & Biklen, 2007, p. 201). My presence in the text is also expressed in my self-reflections and my use of my prior Chinese knowledge (Yin, 1994).

**Introduction**

Following Bogdan and Biklen’s (2007) advice I finalised the writing of the introductory Chapter last by revising the research proposal prepared for the Confirmation of Candidature. The introductory background is needed to understand the importance of the research focus. Chapter One concludes with a statement of the thesis and description of the structure through which that argument is advanced. The short overview of the research methods is provided in the introduction. On the first page of the introduction I directly and succinctly tell readers what I was writing about, giving the larger picture to relate to what they are reading. I started the thesis with a brief story from my research that captures the essence of what the thesis is about.

**Structure of the thesis**

The argument developed in this thesis which makes up the bulk of this manuscript derives its direction from the thesis statement presented in Chapter One. To advance my argument this thesis statement kept me on track. Everything that has been included through the ensuing Chapters is directly related to it. The test of what to include in each Chapter was my answer to the question, does this Chapter relate directly to my research focus and my research questions in particular?

Each evidentiary Chapter is structured in a similar way. The beginning indicates what the Chapter contains and links it to the research focus and the preceding Chapters. The substantive section of each Chapter provides the findings from the analysis of the evidence, while discussion section provides the theoretical interpretation. The conclusion summarises what was in the Chapter, linking it again to the research focus and providing a transition to the next Chapter (Bogdan & Biklen, 2007).
The evidence provided in each of these Chapters (Chapter Five to Chapter Nine) is the basis for the argument, or thesis. Based on what I found I have detailed evidence to support that thesis. My job involved deciding which evidence to use to illustrate those points. It was a balancing act to clearly illustrate that my propositions are grounded in the evidence (Bogdan & Biklen, 2007).

This thesis is documented with data to illustrate and substantiate the analysis being made. Quotations from documents, the presentations of evidentiary excerpts from interviews and other data helps get closer to the issues studied. This thesis is documented with data and explanations giving clear reason for their incorporation.

Conclusion

In the Conclusion (Chapter Ten) the argument is restated and the key findings reviewed. The implications for policy and practice of what has been presented are elaborated. The thesis ends with a call for further research in particular areas. In the conclusion, the reader is reminded that what has been presented is “only a piece of the puzzle, a close-up of one aspect of one segment of a larger world” (Bogdan & Biklen, 2007, p. 209).

Any research project is likely to involve a range of interests, some of which may be competing. Therefore, the idea that there is one ethical or moral route which is equally fair to all concerned may “sound good in theory, but be elusive in practice” (Mason, 1996, p. 29). Even so, ethical concerns must be high on the research agenda of any researcher. In this study, this meant carrying out data generation and analysis in an ethical manner, which, as the following section indicates began with the ethical framing of research questions.

4.5 Research ethics

Ethics in research concerns “the principles of right and wrong that a particular group accepts at a particular time” (Bogdan & Biklen, 2007, p. 48). Two issues dominate guidelines of ethics in research with ‘human subjects’: informed consent and the
protection of informants from harm. In accordance with these guidelines I attempted to insure that informants entered this research project voluntarily, understood the nature of the study and the dangers and obligations that were known to be involved at the time. Informants were not exposed to risks that are greater than the gains they might derive (Bogdan & Biklen, 2007).

These guidelines were implemented through the use of my invitation letter (see Appendix 3), an information statement (see Appendix 4) that I used to give a description of the study, what will be done with the findings and other relevant information. The interviewees’ signature on an informed consent form (see Appendix 5) was taken as evidence of their informed agreement to participate in this study. The University of Western Sydney Human Research Ethics Committee and Queensland Department of Education reviewed the proposal, and the interview questions (see Appendix 2), checking that the proposed research insured proper informed consent and safety for the participants, and approved them (see Appendix 6 and Appendix 11).

In this thesis the participants’ personal information has not be disclosed. Before the interviews began, the researcher informed the participants that their personal information would be kept confidential, because the purpose of the research was to gain their insights with respect to the research questions. The researcher also asked the participants for their permission to record these purposeful conversations while interviewing them. All the interview participants signed the consent forms and all the interview participants agreed to be recorded. The names of the interviewees have been changed so participants’ anonymity is guaranteed and no personal information is revealed (see Appendix 7). All the transcripts are securely kept by me both in hard copy and electronically. Lofland, Snow, Anderson & Lofland (2006, p. 51) state that “one of the central obligations that field researchers have with respect to those they study is the guarantee of anonymity via the ‘assurance of confidentiality’ – the promise that the real names of persons, places, and so forth will not be used in the research report or will be substituted by pseudonyms”.

Anonymity is an issue that arises at two levels: “that of the entire case (or cases) and that of an individual person within a case (or cases)” (Yin, 1994, p. 143). Of course
the ideal option is to disclose both, because two useful outcomes may be generated. Yin (1994, p. 143) notes that “first, the reader is able to recall any other previous information he or she may have learned about the same case”. This ability to integrate a new case study with previous research is invaluable. The second reason for full disclosure is that “the entire case can be reviewed more readily, so that footnotes and citations can be checked, if necessary, and appropriate criticisms can be raised about the published case” (Yin, 1994, p. 143). On the other hand, there are some occasions in which anonymity is necessary as in this study. Yin (1994, p. 143) observes that,

when the case study has been on a controversial topic, anonymity serves to protect the real case and its real participants. … the issuance of the final case report may affect the subsequent actions of those that were studied. … the purpose of the case study may be to portray an ‘ideal type’, and there may be no reason for disclosing true identities in such a case.

For these three reasons, it was decided it would be better to use anonymity in this study. In addition, there were other issues which I needed to consider. First, I had to decide “whether the anonymity of the individuals alone might be sufficient, thereby leaving the case itself to be identified accurately” (Yin, 1994, p. 144). Second, I had to consider how “to avoid attributing any particular point of view or comment to a single individual, again allowing the case itself to be identified accurately” (Yin, 1994, p. 144). I applied these to my situation in order to protect the confidentiality of specific individuals.

My data sources for this study primarily came from public websites, and as such this requires no ethical approval access, and carries with it no requirements whatsoever to render the names of any organisation anonymous. However, in order to focus on the issues raised rather than the particular schools involved I elected to use pseudonyms for all schools, but not for the Queensland Minerals and Energy Academy (QMEA).

However, the lack of attribution may not always be completely protective. I had to amend some comments “so that no one involved in the case [could] infer the likely source” (Yin, 1994, p. 144). Yet the disadvantages for anonymity are that
it eliminates some important background information about the case, but it also makes the mechanics of composing the case difficult. The case and its components must be systematically converted from their real identities to fictitious ones, and you must undergo considerable effort to keep track of the conversions (Yin, 1994, p. 144).

I used anonymity in accordance with the University Ethics Committee’s apparent requirements.

4.6 Conclusion

This Chapter explored the methodology and the design using case study research including the principles, strategies and procedures for doing educational research. It also elaborated the reasons why case study was chosen and the strategies for the research project on which this thesis is based. The research design for this study and related issues have been explained and justified, along with the principles and procedures for data collection and analysis. Ethical issues have been addressed in this Chapter as an inseparable component of this research. This Chapter has provided details necessary for understanding the data sources and analysis presented in the ensuing evidentiary Chapters.

In the following Chapters (Chapter Five to Nine), Government policies are analysed first. This is followed by the analysis of school curricula and teacher professional learning. Then school public communication about VETiS is the focus for analysis. Student outcomes are the last source of data to be analysed. All these document data sources are analysed, and where appropriate supplemented by the analysis of interview data collected by the researcher.
CHAPTER FIVE
AUSTRALIAN GOVERNMENTS’ POLICIES FOR ORGANISING VET/iS

5.0 Introduction

The concept of ‘hub-and-spoke’ organisational mode is elaborated in terms of Australian Governments’ policies for VET/iS. The data analysis presented in this evidentiary Chapter is structured to present a First Cycle analysis (dramaturgical coding and excerpt-commentary analysis) and then a Second Cycle analysis (theoretical analysis). This accords with the procedures proposed by Saldaña (2009, p. 45), namely that “First Cycle methods are those processes that happen during the initial coding of the data”, whereby the data were divided in subcategories and an evidentiary profile is developed according to the themes that emerge. In this evidentiary Chapter the major characteristics of each of these subcategories are explained in relation to the data that is actually analysed, using an inductive style as noted above. With respect to Second Cycle data analysis, Saldaña (2009, p. 45) contends that this requires such analytical skills as “abstracting, conceptualising, and theory building”. In following these procedures this Chapter takes a quite unusual, if not innovative approach to data analysis in educational research where critical discourse analysis seems to prevail. Moreover, this accords both the research questions I actually posed, the data analysed, and how this enabled me to develop and test novel approaches to data analysis in the field of education research.

Over the last decade, Australian Governments at State and Federal levels have issued different policies to reform Senior Secondary schooling through vocational education and training (VET) or vocational education and training in schools (VETiS), thus named in this Chapter as VET/iS. This choice of terms has been done in part because the policies issued by the Governments are directed to both VET and VETiS, and in part because VET and VETiS are interrelated. Therefore, in this Chapter these two terms are merged as VET/iS. The analysis of these policies in this Chapter provides insight into the Governments’ aims, attitudes and strategies for organisational changes through VET/iS in different dimensions. Macro policy, when it is effective, can result in micro changes (to school-level practices) that are consistent with the changes desired by policy makers. A researcher’s task is “not to minimise or
underestimate the effects of policy” (Ball, 1994, p. 11), but to interpret what the policy-makers try to convey to the policy readers. For these reasons, such an analysis is critical for school organisational changes through VET/iS, and also the diverse policy issues concerning VET/iS enhancement. This is because VET/iS is regarded by policy makers and schools as “an important way to both retain students in school, provide pathways between education and employment through the provision of employment related skills and to increase the skills base of the economy” (Stokes & Wyn, 2007, p. 503).

While policy paradoxes and ambiguities are not unique to education, the consequences for young adults are particularly important. In education settings it is expected that the most significant policies will create changes “intended to improve the educational outcomes for the majority of students, with the greatest benefits of change flowing to those for whom the system has traditionally worked least well” (Crump & Stanley, 2005, p. 8). Then what strategies do Government policies use to drive organisational changes in Senior Schools through VETiS? This Chapter investigates these and related issues by analysing four VETiS related policies, namely


Four policies were chosen for analysis because “one policy paper is unlikely to reflect perfectly the range of official policy statements made on a specific issue” (van Eeten, 2007, p. 253). The purpose of analysing these policies is to better understand
and interpret the information and implied meaning each policy conveyed to policy readers and to explore what the policies say – explicitly or implicitly – about organisational changes in Senior Learning as a result of VET/iS. These policies are the representative of a certain position or phenomenon at the collective level. Another reason for this policy analysis is that “the success of VET in Schools has a number of consequences that have not yet been fully acknowledged or researched” (Smith, 2004, p. 560). Even so, at a national level, the Australian Student Traineeship Foundation (ASTF) was set up “to encourage more work placements for senior school students”, and at State and Territory levels, Education Departments set up special units “to develop and monitor VET in schools programs” (Smith, 2004, p. 563).

Education policy is “an investment in the individual lives of a younger generation by an older generation to ensure hopeful futures both for individuals and for society as a whole” (Bardsley, 2007, p. 504). Education policy is developed and applied to address students’ current and future needs. “The messages, models and actual allocation of values” (Schneider & Ingram, 2007, p. 329) of policies impact on citizen attitudes and behaviours. They are expected to address issues through the process of policy implementation.

5.1 Governments’ motives for producing VET/iS policies

Secondary schooling in Queensland was restructured through policy interventions as a result of difficult collaborations between industry, the unions and the Government (Crump & Stanley, 2005). The objective of this collaboration was to improve educational and economic outcomes for young adults in Queensland through recognition of broader competencies and qualifications. One specific objective was to increase the retention rates in senior secondary education by encouraging young adults to ‘stay on’ (or return) to complete senior school and/or further education and training. Each year, each participant was supposed to be

78 According to Dolowitz and Marsh (cited in Grin & Loeber, 2007), there are three types of knowledge transfer in policy-making. Voluntary transfer is driven by dissatisfaction with current policy. Direct coercive transfer results less from learning than from obligations imposed by international or transnational treaties or entities. Indirect coercive transfer is driven by externalities that result from interdependence.
either enrolled in high school; or studying full-time or part-time at a university; or studying full-time or part-time in TAFE or another form of vocational training; or in an apprenticeship or a traineeship; or working full time or part-time and not in study; or unemployed, or not in the labour force (Vickers, Lamb & Hinkley, 2002, p. 6).

te Riele (2007) observes that there were about a quarter of young adults in Australia who did not complete Year 12 in 2002. This is much lower than the Government’s target of 90 percent of young people having completed Year 12 or an equivalent by 2015 (MCEETYA, 2008). Because a quarter of young adults are a concern to Governments, system-wide innovation was proposed:

By 2006, all Year 10 students, or those who were 15-years-old [would] be registered with the newly formed Queensland Studies Authority. New legislation requires young people to remain at school until they finish Year 10 or have turned 16, whichever comes first. All young people engage in a compulsory two-year participation phase of either learning and/or earning activities (Queensland Government, White Paper cited in Harreveld & Singh, 2007, pp. 274-5).

In this case VETiS was created as “a key link in this chain of planned events” (Crump & Stanley, 2005, p. 1). This meant young adults were offered more ‘second chance’ options through Government policies to increase the retention rate. The policy New Framework (MCEETYA, 2001) embraced the need for organising improved transition pathways for all young adults from school to work, further education and training. This New Framework was developed in 2000, but as its core, it has a New Framework for vocational education in schools which is directly related to the topic of this research.

This New Framework features eight basic attributes, namely explicit and well-articulated pathways, community partnerships, lifelong learning skills and attributes, enterprise and innovation, career information and guidance, and access to student services, individual assistance for students-at-risk, supportive institutional and funding arrangements, monitoring and evaluation (MCEETYA, 2001). These features offered a comprehensive guide for organising pathways for young adults to make the transition from school to work or further education and training. There has been no revision to the New Framework since 2001, so this policy was chosen for
analysis in this Chapter. To explore the organisational changes in VET/iS expressed or implied in this policy, the six Key Elements of this policy\textsuperscript{79} are each analysed, supplemented with evidence from three related policies (ANTA, nd, Queensland Government, 2006, and Action Group & Ministerial Council, nd), using research methods of dramaturgical coding (Saldaña, 2009) and ‘excerpt-commentary’ analysis (Emerson, Fretz & Shaw, 1995) respectively.

5.2 Governments’ strategies in organising Senior Learning through VET/iS

For policymakers, conceptualising vocational learning in ways that mirror formal education enables them to “set standards for the design of vocational qualifications, allocate funding, measure outputs and compile data on the volume of skills in the economy” (Unwin & others, 2007, p. 336). But policy is seen as an open-ended process of change or growth in a hierarchical context. There is no guaranteed direction for change. All policy ideas have the potential “to improve or make worse the issue they are addressing” (Crump & Stanley, 2005, p. 7).

5.2.1 Principles and purposes of organising VET/iS

Policies may provide benefits that make a difference in young adults’ work/study trajectory, and they give the rationales, rules and tools for implementing organisational structures through which recipients have “direct experience with government operatives” (Schneider & Ingram, 2007, p. 341). In the New Framework (2001) for VETiS, the first Key Element provides for young adults the organisation of accredited industry-specific training based on the Australian Quality Training Framework (AQTF), qualifications and competencies endorsed within the National Training Framework.

\textsuperscript{79} The New Framework (2001) comprises six Key Elements:
- Key Element 1: Vocational education and training
- Key Element 2: Enterprise and vocational learning
- Key Element 3: Student support services
- Key Element 4: Community and business partnerships
- Key Element 5: Effective institutional and funding arrangements
- Key Element 6: Monitoring and evaluation
Key Element 1 Analysis

VET/iS programs have emerged as a major pathway for senior secondary students in recent years. The next major stage in the development of this pathway is to ensure that VET/iS programs become a fully integrated and sustainable feature of senior secondary schooling.

The achievement of sustainability across government and non-government school sectors in all states/territories represents the next major challenge for VET/iS programs.

VET/iS programs will comply with the Australian Recognition Framework (ARF) and progressively implement training packages. Qualifications delivered through VET/iS programs will need to be indistinguishable from qualifications delivered by other providers. The progressive introduction of training packages on an industry basis indicates that the transition to full implementation will take a number of years.

VET/iS qualifications will be recognised for tertiary entrance purposes and will be increasingly accepted in the Employment market. In order for VET/iS pathways to be accessible for all students it is necessary to establish satisfactory arrangements concerning tertiary entrance. Some progress has been made in this area but there is a need for more universal application. Acceptance of VET/iS qualifications in the employment market requires employer confidence in the quality assurance arrangements.

To further expand opportunities for school students through this pathway a number of issues require further attention. (MCEETYA, 2001),

1 Att: major pathway
2 Obj: ensure integration and sustainability
3 Con: challenge
4 Tac: observance
5 Tac: implementation
6 Emo: equality of VET/iS qualification
7 Con: taking time
8 Obj: recognition
9 Obj: market acceptance
10 Obj: accessibility
11 Tac: arrangements
12 Att: universally applicable
13 Con: requirement
14 Obj: opportunity expansion
15 Con: issues
16 Sub: unsolved
Key Element 1 shows that the attitude embodied in this policy is that VET/iS is regarded as a major pathway and should be universally applicable for young adults. Certain conflicts exist, such as there are major unsolved issues and challenges for VET/iS programs, full implementation of training package needs time, acceptance of VET/iS requires the confidence from the employers. However, some tactics have been taken to realise the objectives of ensuring VETiS integration and sustainability, recognition, market acceptance and opportunity expansion. These tactics include observance of Australian Recognition Framework (ARF), implementation of training package, and arrangements of tertiary entrance. What is implied in this Key Element is that some issues remain unsolved.

The principle of this Key Element is to organise the full integration and sustainability of Senior Secondary Schooling through VETiS. Organising this phase of schooling in this way is meant to benefit all students. Specifically, it aims to organise the recognition and the acceptance of VET/iS qualifications in the labour market, expanding opportunities to ensure VET/iS students’ better transition from school to work. This is because it is believed that VET/iS can become a major pathway for young adults. Organising VET/iS through the qualification framework means it is applied universally. There are, however, issues which may hinder the progress of this action, with major challenges being the time it will take to realise this goal and to meet employers’ requirements.

Strategies to organise VET/iS accessible involve adopting the Australian Recognition Framework (ARF) and implementing training packages. The motive driving these strategies is that VET/iS qualifications need to be regarded as equal to academic qualifications. This Key Element implies that some organisational issues remain unresolved for implementing and increasing opportunities of VET/iS pathways for young adults which need to be further explored. For instance, the assumption that “the majority of young people are doing well and policy merely needs to target the small number of young people who are ‘at risk, disconnected or in vulnerable circumstances’” (te Riele, 2007, p. 56), is questionable because this Key Element
clearly states VETiS pathways are for all students to access. Possibly this pathway may be more feasible for those allegedly ‘at risk’, but it is not only for them.

In 1999, the Australian Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA) defined VETiS as:

VET in Schools programs are undertaken as part of a student’s Senior Secondary Certificate and provide credit towards a nationally recognised VET/iS qualification. VET in Schools programs are based on national industry competency standards (MCEETYA cited in Dalley-Trim, Alloway, Patterson & Walker, 2007, pp. 28-29).

VETiS is used to provide skills and knowledge for work, enhance employability prospects and assist further education and training as the following policy states.

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>This National Strategy is a commitment to continue to work in partnership with industry, providers and other stakeholders to develop vocational education and training. Vocational education and training is a vast activity involving a rich, dynamic and diverse range of individuals and organisations. This national strategy sets a vision, four objectives and 12 strategies for vocational education and training at the national level until the end of the decade (ANTA, nd, p.3).</td>
<td>Principle and action</td>
</tr>
</tbody>
</table>

The principle of this New Strategy (nd) is to continue the partnership being engaged with different sectors. In this policy VET/iS is considered a significant event which needs diverse participants. The richness, dynamic and diversity of the participants are salient characteristics of VET/iS success. The National Strategy (nd) provides the tactics in the form of a vision, four objectives and 12 strategies for VET/iS at national level. This National Strategy (nd) applied from 2004 to 2010. According to this Strategy, industry decides key aspects of VET/iS, and the clients of VET/iS include full-time and part-time students, apprentices, and trainees. It offers long-term objectives and strategies for making VET/iS client-driven. This is supposed to make VET/iS better respond to the multiple and diverse needs of all parties and provide the basis for organisational changes that respond to and give expression to a rapidly changing world.
VET/iS is meant to enhance Australia’s success in the competitive world economy by working together on a nationally coordinated approach. The following evidentiary excerpt captures this Australian view of VET/iS.

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational education and training has played an important role in Australia’s outstanding economic performance, by greatly increasing the skill of workers. The Australian approach to vocational education and training is now recognised as among the best and most innovative in the world (ANTA, nd, p. 5)</td>
<td>VET/iS perception</td>
</tr>
</tbody>
</table>

Two significant points about VET/iS are conveyed in this policy. First, VET/iS had an important role in Australia’s economic performance through providing with skilled workers. Second, VET/iS is an innovative approach which is valued where successfully implemented. The decisive elements for the success or failure of the implementation of VETiS are indicated in the following excerpt:

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-quality, accessible and innovative VET/iS has never been more important. The capacity of individuals to work effectively and safely and engage with society, the competitiveness of industry, the adaptability of communities, regions and the nation – will all depend on Australia’s education and training capacity. (ANTA, nd, p. 7)</td>
<td>VETiS quality and capacity</td>
</tr>
</tbody>
</table>

In Australia, VET/iS is expected to play a key role in enhancing the capacity of young adults, the competitiveness of industry and the adaptability of the different organisations involved in this strategy. The quality, accessibility and innovativeness of VET/iS as advocated in this National Strategy (nd) is driven by concerns about industries facing even stronger international competition. The challenge is increased because manufacturing industries are expected “to employ a smaller percentage of all workers”, and the number of jobs in construction, agriculture and mining is also “expected to fall” (Access Economics cited in ANTA, nd, p. 6). In addition, young adults find transition from school to work challenging. VETiS was proposed to meet these challenges, emphasising “quality and capacity in training and assessment, and portability of skills between occupations, industries and locations” (ANTA, nd, p. 7).
The claim that the purpose of VETiS proposed “has never been clearly articulated; even within the context of schooling alone it is unclear what it is meant to do” (Smith, 2004, p. 570), is an overstatement. The analysis of the evidence above indicates that the purpose of VETiS has been stated in Government policies, including their corresponding strategies. Moreover, Biddle (2007, pp. 179-180) claims that significant changes have occurred in Senior Secondary Schooling whereby, university education has become a reality for a much larger segment of the population and finishing high school has become the absolute minimum entry requirement for many jobs. This has resulted in large increases in student population and school retention rates.

According to this claim, VETiS can offer benefits for both students and schools. The benefits for students include:

1. the chance to gain a VETiS qualification, as well as pass school subjects;
2. the choice of a more ‘hands-on’ subject, which might suit them better than academic subjects;
3. for those not gifted academically, the chance to shine at something;

Schools also experience the benefits, including the following:

1. increased retention rates by offering a broader curriculum;
2. increased attractiveness to students about to enter Year 11 and their parents;
3. establishment of beneficial relationships with local employers;
4. students who are more interested in their studies and therefore easier to manage (Smith, 2004, p. 570)

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80 Malley, Keating, Lyn and Geof (2001) conducted a research considering: resourcing delivery including cross sectoral and partnership arrangements; program delivery arrangements; curriculum, assessment and qualifications; access and equity regarding youth participation; linkages between schools, student employment and further education outcomes; measures of satisfaction in USA and UK. The findings indicated that vocational education has a range of purposes wider than that of merely equipping young people with skills demanded by industry and post-school vocational institutions.
VET/iS may also benefit Australia’s ‘green economy’. This is because the transition to a low carbon, sustainable economy – green economy – requires workers with new skill sets and values sympathetic to the environment.

### Evidentiary excerpt

<table>
<thead>
<tr>
<th>Existing jobs will need to be transformed as individual firms and entire industries move to a low carbon, sustainable economy. ‘Green jobs’ provide opportunities for career advancement through increasing and diversifying the skills a worker requires. (Action Group &amp; Ministerial Council, nd, np)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green jobs</td>
</tr>
</tbody>
</table>

Entirely new categories of ‘green jobs’ are expected to be created. It is estimated that around 2.5 million ‘green’ jobs will be created in Australia over the years to 2025, and 7.5 million by 2050 (Hatfield-Dodds, Turner, Schandl & Doss, 2008).

Even so, there is room for improvement in VET/iS since problems and issues still exist in areas of student satisfaction and pathway, as the following excerpt indicates:

### Evidentiary excerpt

<table>
<thead>
<tr>
<th>Clients still see VET/iS as complex, and this denies them the ability to make informed choices about the ‘what, where, when and how’ of training. The availability and quality of VET/iS varies between and within States and Territories, and it is still concentrated in only a few industries (ANTA, nd, p. 10). Pathways between education and training sectors have improved but barriers still exist, particularly between VET/iS and universities (ANTA, nd, p. 11).</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET/iS issues</td>
</tr>
</tbody>
</table>

Although VET/iS has been successful in many fields, there are still some issues that need investigation. VET/iS is complicated for some young adults, impacting on their work/study choices. Additionally, there are only a few industries engaged in VET/iS, and the access to and the quality of VET/iS vary across different States. For instance, obstacles exist between VET/iS and universities for young adults, whereby the latter consider VET/iS to be a ‘soft option’. All these may prevent VET/iS from successful implementation and realising its potential popularity.

The introduction of VET/iS presents significant changes to Senior Secondary Schooling. VET/iS programs aim to “provide young people with better links to
industry, and more diverse pathways from school to work and further study, [and] expand opportunities for Senior Secondary students, and to prepare young people for the workplace of the future” (Anlezark, Karmel & Ong, 2006, p. 13). Nearly every secondary school in Australia now offers VET/iS programs. These programs can be undertaken in a variety of ways:

1. Students study the entire qualification within the school and the school awards the VET/iS qualification, if it is accredited as a Registered Training Organisation.
2. Students study at school and the school has a partnership with an outside RTO, which oversees the quality of the training and issues of the qualification.
3. Students study the VET/iS-qualification-related part of their course at a local TAFE college or other RTO; in this case, the school ‘purchases’ the training from the RTO (Smith, 2004, p. 566).

The accessibility and availability of these programs have been increased because VETiS is popular among young adults.

5.2.2 Integration of l/earning: Government’s strategies for organising students’ transition

Key Element 2 in the New Framework (2001) focuses on the integration of enterprise and vocational perspectives into the l/earning that is suitable to young adults’ schooling.

**Key Element 2**

A major focus within this element is to

1. enhance the transitions for all young people through access to generic skills and competences. These are valuable to all students throughout their school life.

The development and attainment of these skills also contributes to the selection of VET/iS programs in senior secondary schooling.

A further focus within this key element is access to enterprise education programs and activities. Opportunities for involving young people in enterprise education

**Analysis**

1. Obj: enhance the transitions
2. Tac: accessibility to skills
3. Emo: valuable
4. Sub: beneficial to all
5. Att: conducive
6. Obj: accessibility
programs and activities will be identified and implemented. (MCEETYA, 2001)

Key Element 2 reveals that the *attitude* in this Element of the policy is skills development and attainment is conducive to the choice of VET/iS programs for young adults. The *objectives* presented in this Element are to enhance the transition for all young adults and the access to education programs and activities. The *tactics* to deal with these objectives are to provide access to generic skills and capabilities, and to identify and implement opportunities to involve young adults in the programs and activities. The *emotion* in this Element indicates the value of these objectives and tactics. What is *implied* is that enhancing the transitions is beneficial to all young adults.

This evidentiary excerpt indicates the aim of enhancing the transitions from school to work or further education and/or training for all – or more – young adults by providing generic skills training and organising enterprise education programs so that these are accessible and available to them. The rationale is that skilled jobs dominate jobs growth and young adults with vocational education and training qualifications “fare much better in the employment market” (MCEETYA, 2008, p. 4). Therefore, Australia’s young adults are now encouraged to complete secondary education and also to proceed into further training or education. The strategies taken to realise this outcome focus on the identification and implementation of opportunities for learning generic ‘green’ skills that enhance young adults’ employability. The policy assumption is that having young adults choose VET/iS programs and activities will be valuable for their work/study trajectory. What is implied in this Key Element is that the generic skills and competences are extremely important and conducive to all – or most – young adults’ future employment. ‘Green’ skills are important for this rising generation of workers, as the following excerpt states:

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>The specific skills that the low carbon, environmentally sustainable economy demands will need to be continuously identified to ensure that the VET sector invests in designing and delivering new training programs and retooling existing training</td>
<td>Green skills</td>
</tr>
</tbody>
</table>
VETiS is expected to develop new skilled workers for innovative technologies through supporting or creating arrangements for knowledge sharing and partnerships. To build transition from school to work, vocational training and university education, school-industry engagement continue to be developed. As the following evidentiary excerpt states, this requires action to accord with different projects:

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>The action will be streamlining school-based industry relationships; implementing Gateway Schools projects that include agribusiness; building and construction; manufacturing; and sharing best practice and capturing innovative projects at the local, regional and state level (Queensland Government, 2006, p. 19).</td>
<td>school-industry partnerships</td>
</tr>
</tbody>
</table>

Three points in this excerpt are noteworthy. First, the school industry relationships are being reorganised. Second, plans are needed for projects in different industries. Finally, best practices at different levels have to be captured so innovative projects are shared. Young adults at school are given the chance to experience different trades to broaden their understanding of the opportunities these careers can offer. The “Try’a Trade program” enhanced the partnerships between schools and industry (Queensland Government, 2008, p. 18).

The implementation of ‘Try’a Trade’ could delay young people’s acquisition of vocational preparation, rather than having them undertake credential-based vocational education and training (Taylor, 2005). Organisational changes in schools have focused on providing industry-specific work skills and associated competencies so that school student access to qualifications that industry needs. But an apparent consequence of this may be that students have to make initial career choices at a much earlier age. For instance in Western Australia, it is recommended that “school-based vocational training be made compulsory as part of the Year 8 to 12 secondary school curricula” (Curriculum Council cited in Taylor, 2005, p. 213). If this locks young adults into a single track, then this recommendation is questionable. Taylor (2005, p. 213) argues that “if it is put into action, the direction of school education
will be changed, at least from Year 8 on”. This claim is debatable. Making an explicit link between manual and intellectual labour could be productive. Learning generic vocational skills could be valuable for all students if it includes academic and vocational studies, and could be beneficial throughout their life.

The conception of youth-in-transition is built on the idea of “a forward momentum that carries individuals from the status of student (immaturity) to vocation (maturity)” (Stokes & Wyn, 2007, p. 498). However, policy approaches that focus only on the links between study and work tend to “over-emphasise the linearity of this process and its direction” (Stokes & Wyn, 2007, p. 498). The assumption of linear movement from one dimension (study) to another (work) supports the idea that “these are distinct and dichotomous fields and that learning occurs at a set time and within a distinctive site that is age-based (formal schooling)” (Stokes & Wyn, 2007, p. 498). While some have argued that linearity continues to represent the trajectories of ‘successful’ youth transitions, Stokes and Wyn (2007, p. 498) suggest that “this concept of linearity must take a very broad approach to the relationship between study outcomes and employment destinations”. Disjunctures between fields of study or areas of qualification and occupation, and breaks in the timeline can not be ignored. In practice, learning and earning are now far more interrelated in young adult’s lives, whether they be at school, college or university. That is to say, learning can occur in many different sites and is often “conterminous with employment” (Stokes & Wyn, 2007, p. 498), even in the lives of secondary school students. The integration of learning and earning is expected to provide young adults with more options and opportunities. With more options created through VETiS Senior Secondary schooling is being changed for better but not for worse.

5.2.3 Governments’ strategies for organising students’ support services

Governments of different levels proposed several strategies for better organising young adults’ support services. A major area of growth in VETiS has been school-based apprenticeships, with 211 900 students enrolled in 2004 in VETiS, including 15 200 school-based apprenticeships commencements in 2005 (NCVER, 2008). The
following excerpt suggests that this growth indicates the success of the implementation of VETiS:

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
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<tbody>
<tr>
<td>Employer and student satisfaction is high. In 2001, 84% of employers were satisfied</td>
<td>Reciprocal satisfaction</td>
</tr>
<tr>
<td>with the quality of graduates, and in 2002, 78% of graduates achieved their main</td>
<td></td>
</tr>
<tr>
<td>reason for enrolling in their course (ANTA, nd, p. 10).</td>
<td></td>
</tr>
</tbody>
</table>

This mutual satisfaction comes not from ‘skills’ that employers require but a complex of attitudes, dispositions and affective traits. For example, Wooden (cited in Taylor, 2005, p. 205) observes that “employers are ranking highly maturity, adaptability, trainability, initiative, cleanliness, good manners, interest in the job and respect for authority”. Since all policies have the potential to improve the issue addressing (Crump & Stanley, 2005), student support services are proposed to ensure better results.

Key Element 3 in the New Framework (2001) indicates the services that support young adults in their transition from compulsory schooling to post-school destinations and options.

**Key Element 3**

<table>
<thead>
<tr>
<th>Analysis</th>
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</thead>
<tbody>
<tr>
<td>1 Tac: continual provision</td>
</tr>
<tr>
<td>2 Obj: increase awareness</td>
</tr>
<tr>
<td>3 Con: rapidly changing</td>
</tr>
<tr>
<td>4 Obj: diverse information</td>
</tr>
<tr>
<td>5 Att: vital</td>
</tr>
<tr>
<td>6 Att: vital</td>
</tr>
<tr>
<td>7 Con: need broadening/inclusion</td>
</tr>
<tr>
<td>8 Obj: decision making</td>
</tr>
</tbody>
</table>

Career education programs, activities, experiences will 1 continue to be provided in schools 2 to increase student awareness about 3 the rapidly changing nature of work and careers.

The provision of 4 readily accessible, well organised, accurate, comprehensive and current information is 5 a vital element of the new framework. This information is 6 essential for all young people to be able to meet the demands of the knowledge economy. Information also 7 needs to be broader and include careers and labour market information to enable students to 8 make informed transition decisions.

The effective provision of this information involves
Key Element 3 explains student support services. The attitudes presented in this Key Element are that it is vital to provide VET/iS related information for all young adults and that people concerned have realised the importance of information provision. The conflicts existed include the changing nature of work and careers, lack of necessary information, a need for establishing linkages to access, a need for high quality information, and facilities requirements. To tackle these issues, tactics provided include continuing former provision of programs and activities, cooperation among schools, employers and relevant organisations, availability of counselling services, and assisting young adults in transition. The objectives of these tactics are to increase students’ awareness of the changing labour market, provide diverse information, and help students making decisions and overcoming difficulties in transition. The emotion in this Key Element to those objectives and tactics is that they are essential to support young adults with difficulties in transition.
This Key Element aims to increase students’ awareness of the labour market. The main obstacles to the achievement of this policy objective is the unstable nature of the job market for young adults; a factor that was especially evident with the beginning of the 2008 global financial crisis. The related issues are ways of organising access to information for young adults about the labour market; producing high quality information about career and opportunities; and creating effective facilities for student support services. It is believed that increasingly more people from different sectors are becoming aware of these issues and are trying by different means to deal with them because this is vital to all young adults’ transition to work and selection of VET/iS pathways. To tackle these issues, the key tactics are about encouraging – exhorting – cooperation among different sectors including schools, employers and different organisations; and helping young adults prepare for the work by making student services available to all. While organising partnership between schools and industry is crucial, Australian Governments also support a range of other strategies:

increasing access to and participation in high quality, industry-recognised training at Certificate III level for secondary school students, including through Trades Training Centres [and] ensuring all students have access to quality support, information and advice to facilitate access to further education, training, careers, and employment options (MCEETYA, 2009, p. 12).

This Key Element implies that one strategy alone is not enough to deal with these issues. Multidimensional and multilevel engagements are needed to cope with the complexity of the issues. In addition to the partnerships, making student services available and accessible to all is also highly significant. Services are expected to be organised in the way to help young adults navigate and interact with vocational education and training effectively and successfully.

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
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<tbody>
<tr>
<td>Clients, particularly youth in transition find VETiS more understandable and enjoy easier access to information, career development, navigation and brokerage services. Communities engage in partnerships with VETiS to meet their local economic development needs (ANTA, nd, p. 15).</td>
<td>Servicing</td>
</tr>
</tbody>
</table>
This evidence suggests that VET/iS is popular among young adults who can access relevant careers information. Community engagement in VET/iS is also said to have local economic benefits. However, to make effective transitions from school to employment, young adults require not only access to information but also qualified people to assist them in making decisions about jobs, courses and career paths. Skilling Solutions Queensland was established by the Government as an organisation to help them solve these problems.

Evidentiary excerpt

<table>
<thead>
<tr>
<th>A Youth Career Information Framework will be developed through an ICT-based portal which draws together a range of career development products and services to provide information for school students on VETiS programs. This will include information on: school-based apprenticeships and traineeships; VETiS options; and Skilling Solutions Queensland services (Queensland Government, 2006, p. 18).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key concept</td>
</tr>
<tr>
<td>VET/iS doorway</td>
</tr>
</tbody>
</table>

This particular framework provides services about VETiS via ICT to young adults. The services offered are diverse, ranging from school-based training to VET choices. However, further measures need to be taken through creative partnerships to increase student participation in VET/iS, especially in school-based apprenticeships and traineeships. The training department worked with stakeholders “to double the participation in school-based apprenticeships and traineeships over the period 2006-2010” (Queensland Government, 2006, p. 18). Expanding opportunities for pre-trade training was also of importance, and more pre-vocational training was to be delivered to enable young adults to “get a head start on their trade career” (Queensland Government, 2006, p. 18).

Increasing partnerships between the training and education sector was seen as vital for young adults’ transition from school to work. To organise these partnerships the training department produced a professional development framework for the education and training sectors to share good practices and capacity building (Queensland Government, 2006). Queensland’s education and training reforms suggest that “secondary schools can broker learning opportunities for young adults through youth support services; long-term flexible socio-academic learning services;
networking to power through mentoring and work readiness training” (Harreveld & Singh, 2008, p. 13).

These learning organisations play an essential role in the construction of young adult’s competence which is essential for their educational development and in supporting them to negotiate the complexities of education and labour market. However, more nuanced policy approaches are needed, supported by a more contextually grounded concept of transition which acknowledges “both the societal shift from industrial to post-industrial modes of learning and earning and the role that young people play in forging new identities and approaches to career” (Stokes & Wyn, 2007, p. 496). In the learning setting, there also need multiple forms of cooperation.

5.2.4 Collaboration across different levels: Organisational changes in learning settings

Key Element 4 in the *New Framework* (2001) centres on the mechanisms that promote close cooperation between all levels of Government, business, community organisations and education to address the issue of labour market.

<table>
<thead>
<tr>
<th>Key Element 4</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>A major process for the implementation of the new framework is ¹the application of community and business partnerships. ²The establishment and continuous development of partnerships between a wide and diverse range of agencies and groups concerned with young people is ³essential for the advancement of student outcomes. ⁴The centrality of partnerships is a further indication that increasingly learning takes place ⁵in a variety of ways and in a variety of settings. There is a substantial body of ⁶growing evidence that indicates school students achieve ⁷learning outside the school.</td>
<td>¹ Obj: partnership application ² Tac: establish and develop ³ Emo: vital to outcomes ⁴ Att: centrality ⁵ Tac: various learning ways and settings ⁶ Att: more and more evidence ⁷ Sub: education venue</td>
</tr>
</tbody>
</table>
The objective of this Key element was to organise collaboration between school, community and business. The attitude embodied in this Key Element is that more and more evidence indicates that organising partnerships are central to broadening the ways and settings of learning, including learning outside schools because it is emotionally believed to be vital for the improvement of students’ work/study trajectories. The tactics to realise the objective is to establish and develop partnerships between diverse agencies and groups and to make learning possible in a variety of ways and settings and beyond. The emotion revealed in this Key Element is that all the objectives and tactics are vital for the advancement of student outcomes. What is implied in this Key Element is that school is not the only venue for receiving education for young adults.

The organisation and/or continued development of partnerships is recommended so as to enable learning to take place in a wide range of settings and in diverse ways, and to support and allow schools the authority and flexibility to create such partnerships. Similarly Australian Governments offer strategies for “partnerships with universities, registered training organisations, TAFE and businesses to broaden the horizons of students, support educators and provide students with links to further training, education and employment opportunities” (MCEETYA, 2009, p. 12). This implies that schools are not the only place where young adults can receive education. Learning settings are diverse and flexible. On a similar point, the National Strategy identified objectives for involving different parties and individuals to improve and strengthen VET/iS. The following excerpt makes this point:
Industry will have a workforce to support strong performance in the global economy. Employers and individuals will be at the centre of vocational education and training. Communities and regions will be strengthened economically and socially through learning and employment. (ANTA, nd)

One aspect of this evidence which is worth particular attention is that the strategy targeted people of different sectors. This indicates that people at different organisational levels need to be involved to improve and enhance VET/iS. As far as industry is concerned, its workers need to be equipped with skills to improve performance. As for communities and regions, VET/iS can not only motivate interest in learning but it strengthens “the capacity of TAFE and other providers and brokers to partner with local government and non-government agencies, businesses and industry clusters” (ANTA, nd, p. 13). Local planning and innovation are encouraged to help communities deal with changes and take advantage of opportunities for growth.

The Queensland State Government first proposed the reforming of Senior Learning in 2003 with the release of proposal for education and training reforms. This offered “different governance structures, funding initiatives, certification procedures and qualification for senior phase learning and a repositioning of the senior secondary school as a broker of learning for young people” (Harreveld, 2007, p. 275). The reform was expected to “create an educational, stimulating, and structured environment to promote growth and learning and to enhance school readiness” (Popkewitz, 2008, 166).

The desired outcomes for this agenda were an increased number of young people who have successful transition into the Senior Phase of Learning, and successfully participate in a range of relevant options during the Senior Phase of Learning (DETA, nd). Facilitating their successful transition to further education, training and/or employment is a key focus. The possibilities for brokering learning opportunities for young adults provide “a basis for developing policies for Senior Learning that are based on knowledge of how education, training and work may be valued by
individuals, and how they rank these relative to other goods they value” (Harreveld & Singh, 2008, p. 13).

Most States and Territories incorporate VET/iS administration within the one Government Department, but VET in Schools is typically administered through the school division.

5.2.5 Organisational changes in financial arrangements

The national VET/iS system is strategically and politically positioned such that it is subject to major demands that go beyond those for skills that are industrially and occupationally defined. At the State and Territory level the VET/iS systems are primarily oriented to their historical function of “supporting industry skills formation and individual skill needs at entry and continuing levels” (Keating, 2008, p. 13). Financially, VET in schools is funded through the school division, and this funding is not part of the State training profile. Under these arrangements the schools purchase training from TAFE or private registered training organisations (RTOs), or are themselves registered as an RTO. However, there are exceptions to this, whereby funding for VET in Schools is incorporated into the performance agreements of the TAFE institutes or colleges (Keating, 2008).

The proportion of the population doing VET/iS is increasing. In the last decade, enrolments in VET/iS have taken off. In 1991, just over one million Australian students were enrolled in VET/iS. By 2002, 1.7 million people were enrolled in this publicly funded system (NCVER cited in ANTA, nd, p. 8), as the following excerpt states:

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
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<tbody>
<tr>
<td>More than one in eight working-age Australians were doing vocational education and training, and three quarters of these were enrolled in TAFE. There was also particularly striking growth in VETiS: around 40% of year 11 and 12 students now do VETiS as part of their schooling (ANTA, nd, p. 8).</td>
<td>Achievement</td>
</tr>
</tbody>
</table>
More and more young adults throughout Australia are choosing to do VET/iS through different ways. What is more important is that VET/iS is becoming popular among young adults as part of their senior schooling. This indicates that people’s view of schooling is not totally academically-oriented any more, and that young adults’ pathways are not restricted to going to university. This provides a flexible transition with more pathways for young adults. With the increasing number of young adults doing VET/iS, the proportion of Australian employers that provide or support training for their employees also “increased from 61% in 1996 to 81% in 2002” (ANTA, nd, p. 9). More importantly, the number and variety of pathways into vocational education and training has “increased, especially for young people through New Apprenticeships and vocational education and training in schools” (ANTA, nd, p. 9). The majority of publicly funded students attend TAFE. The organisation of funding is an important factor affecting the implementation of VET/iS. The New Framework (2001) provides for effective program implementation through organising financial arrangements for the continuous involvement of all relevant players at different levels.

Key Element 5

1 Arrangements are individually developed between the Commonwealth and each state/territory government system and non-government school authority to enable integrated and coordinated approaches to policy, planning, funding and service delivery.

2 The coordinated and integrated arrangements will be tailored to the unique situation of each system and authority and recognise that they have different needs, histories, stages of development and policy emphases. Accordingly, these arrangements will be supportive of flexibility in local implementation.

The coordinated and integrated arrangements will be based on agreed performance measures that are outcome driven. These arrangements need to be

Analysis

1 Tac: individual arrangements

2 Obj: integration/coordination

3 Tac: collaborated arrangements

4 Tac: modification

5 Att: recognition

6 Emo: supportive

7 Tac: basis

8 Sub: principle of measures

9 Con: need broadening
broad based in order to encourage and facilitate greater stability in government funding, greater cooperation at the community level, and greater flexibility. (MCEETYA, 2001)

This Key Element aims to organise effective institutional and funding arrangements, without specifying how. The attitude in this Key Element is that these arrangements have different functions. The objectives for this Key Element are for the arrangements to integrate and/or coordinate approaches to policy, funding and service delivery. The conflict for these objectives is that the arrangements need to be broad-based. Thus, the tactics for the issues is that arrangements are developed individually, coordinated/integrated and modified, and based on agreed performance measures. The emotion in this Key Element reveals that these arrangements are supportive of flexibility in local implementation. It is implied in this element that the principle of performance measures are outcome driven.

This is due to the perception that the organisation of the integration and coordination of partnership learning needs to be broadly based. People of different sectors have to be aware that these organisations have unique features, and to do this greater stability in funding from different levels needs to be encouraged and facilitated. Appropriately organised funding is necessary for achieving flexibility in implementation. The strategies that have been taken to invest in VET/iS means funding was to ensure VET/iS develops towards preferred direction:

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
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<tbody>
<tr>
<td>Making a sustained investment in TAFE and other Registered Training Organisations. Enable training providers and brokers to partner with industry to drive innovation. Implement flexible funding models and planning and accountability approaches. Develop a sustainable mix of funding (ANTA, nd, p. 16).</td>
<td>Building</td>
</tr>
</tbody>
</table>

What is important in this evidence is that Government investment in TAFE and RTOs is necessary to ensure the sustainability of the training sector, with partnerships between training providers and industry, making reforms in VET/iS
possible. Flexible and sustainable Government funding is the key to organisational changes in VET/iS. In terms of resources, VET/iS courses are “more expensive to run than the non-VET/iS courses so their cost-benefit as a retention strategy has to be considered” (Stanley, 2007, p. 97). This requires a sense of purpose which builds a more efficient and meaningful investment of people’s intellectual, emotional, relationship and financial resources. Brokering changes based on such values can form, inform and transform the collective constituencies (Harreveld, 2007, p. 282).

With sustainable investment and flexible funding, strategies for equipping young adults with ‘green skills’ are possible:

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
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<tbody>
<tr>
<td>Better engagement with industry. Enhancing the capacity of the VET sector to deliver appropriate skills. Delivering flexible training, assessment and support services to skill and re-skill the workforce. (Action Group &amp; Ministerial Council, nd)</td>
<td>Engagement Enhancement Delivery</td>
</tr>
</tbody>
</table>

However, VET/iS funding still needs to be improved in some aspects even though much has been achieved, as the following excerpt suggests:

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
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</thead>
<tbody>
<tr>
<td>Strengthen industry’s role in anticipating skill requirements and developing products and services to meet them. Making learning pathways seamless. Improve quality and consistency. Facilitate access to international markets. (ANTA, nd, p. 17)</td>
<td>Improvement</td>
</tr>
</tbody>
</table>

This evidence shows that industry plays an important role in improving VET/iS. Learning/earning pathways need to be made effective and efficient while the quality and consistency of VETiS is a necessary focus of the improvement. Accessibility to international markets also needs to be made possible. In order to make learning pathways seamless, partnerships between VET/iS and schools, universities and community education organisations are needed to combine education and training pathways. Partnerships with other sectors also help improve learning pathways (ANTA, nd). For example, at the national level, the Howard Federal Government
claimed that “the ongoing liberalisation of the economy, including education, is needed to maintain low taxes, essential for attracting multinational companies and their employees to Australia” (Bardsley, 2007, p. 497).

Each Australian State has its own plans to promote and enhance its VET/iS. The Queensland Government’s (2006) *Queensland Skills Plan 2008 in Action* claimed to mark a significant innovation in that State’s vocational education and training system in 40 years. In this action plan, the Queensland Government (2006) expressed its intention to improve youth transitions between school, education and training to improve their education, training and employment outcomes, and to ensure young Queenslanders benefit from increased vocational opportunities. Completing Year 12 gives young adults opportunities for further education and employment. Recent reforms to education and training have focused on retaining young adults in education and training to age 17 in order to achieve a Queensland Certificate of Education, Certificate III vocational qualification or secure full-time employment.

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
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<tbody>
<tr>
<td>Improving youth transition to enhance education, training and employment outcomes will be addressed through:</td>
<td>Youth transition</td>
</tr>
<tr>
<td>- enhancing information and access to vocational education, training and employment pathways</td>
<td></td>
</tr>
<tr>
<td>- creating innovative partnerships between industry, education and training</td>
<td></td>
</tr>
<tr>
<td>- improving transitions for 18 to 24 years olds (Queensland Government, 2006, p. 17)</td>
<td></td>
</tr>
</tbody>
</table>

Efforts to maintain the accessibility of VETiS pathways, and partnerships are necessary to support young people’s transition through education to secure employment. However, a key policy issue is the financial support needed from different levels of Government. This is because as Bardsley (2007, p. 500) notes that “the majority of Australian public schools, already significantly under-resourced in relation to private schools, saw valuable public funding for education being directed elsewhere” (Bardsley, 2007, p. 500).

Moreover, the Howard Federal Government
decreased funding for speciality Technical and Further Education (TAFE) colleges, developed to provide vocational skills, and increased funding for vocational education and training for those students in public schools who wish to choose an immediately applicable employment focus to their studies (Bardsley, 2007, p. 502).

Australian Governments currently spend “around $3.8 billion a year on vocational education and training and businesses a similar amount on training” (ABS, cited in ANTA, nd, p. 6). Sustainable funding needs to be planned to deliver workers with the ‘green skills’ that the low carbon economy demands (Action Group & Ministerial Council, nd, np). Interestingly, this points to the concept of ‘skill’ as being ambiguous due in part to the shifts over time and variations between different States. Australia has moved to reconsider and deal with the highly problematic issue of so-called ‘soft skills’, placing the issue on the vocational education and training agenda. A competency-based employability skills framework was developed to distinguish between so-called ‘employability skills’ (communication, teamwork, self-management) and ‘personal attributes’ (loyalty, commitment, enthusiasm). The VET/iS sector has a critical role in “skilling new and existing workers, and supporting and creating other arrangements for knowledge sharing and partnerships” (Action Group & Ministerial Council, nd, np). Rothstein (2007, p.195) argues that “policymakers have been very concerned with the relationship between high school employment and schoolwork. However, policy recommendations with respect to youth employment while in school have not been consistent over the years”.

The evidence analysed above indicates that Governments at different levels have been making efforts to prepare young adults for their learning including youth employment. The question then is how to measure these achievements? This evidence is analysed in the following section.

5.2.6 Measuring organisational changes

The organisation of the data collection is a necessary part of educational reforms providing evidence that enables the effectiveness of changes to be measured.
Key Element 6

There will be a nationally agreed collection mechanism for gathering data about programs encompassed by the new framework. There is a recognition that data collection needs to be systematised to enable more effective measurement of the achievement of outcomes.

More effective tracking and monitoring of young people will be implemented after they leave school. This is necessary in order to identify students who become vulnerable or potentially at risk of not making successful and help schools and school systems to assess their achievements in supporting young people’s transitions. (MCEETYA, 2001)

This Key Element aims to organise monitoring and evaluation. The attitude represented in this Key Element is to enable more effective measurement of outcomes. The objective in this Key element is to have a nationally agreed data collection mechanism. The conflicts in realising this objective is to provide a systematised data collection and some students are vulnerable or at risk of not making successful. To deal with the issues, tactics adopted include data collection about programs, tracking and monitoring young adults, identifying students in need, and helping schools to assess their achievements. The emotion in this Key Element shows the necessity of tracking and monitoring young adults. It is implied that at the time, organising the tracking and monitoring of young adults was not effective so needed to be enhanced.

While it was suspected that some students had become vulnerable or ‘at risk’ of not making a successful work/study transition, there was no systematised collection of data about this. Therefore, tracking and monitoring young adults was seen as imperative to identifying needs so schools can help support students’ achievements. Progress towards the realisation of monitoring changes at different levels and
reporting these periodically was raised throughout the life of the National Strategy. The specific measures included:

<table>
<thead>
<tr>
<th>Evidentiary excerpt</th>
<th>Key concept</th>
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</thead>
<tbody>
<tr>
<td>1. The level of student participation and achievement in VETiS</td>
<td>Key measures</td>
</tr>
<tr>
<td>2. The level of student employment outcomes and benefits after training and their satisfaction with their training program</td>
<td></td>
</tr>
<tr>
<td>3. The level of employer adoption of, and satisfaction with, vocational education and training in meeting the skill needs of their workforce</td>
<td></td>
</tr>
<tr>
<td>4. The level of community awareness and engagement with VET/iS to assist with economic and social development</td>
<td></td>
</tr>
<tr>
<td>5. The efficiency of Australia’s VET/iS system (ANTA, nd, p. 20)</td>
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Performance measures mainly focus on participation, achievement, employment and benefits of students; satisfaction of employers; awareness and engagement of the community; and the effectiveness of VET/iS system. These measures monitor and reinforce the implementation of VET/iS in Australia.

From the policies analysed above, it seems that the partnerships among different levels and agencies are crucial to the organisational changes in Senior Learning and the success of VET/iS in effecting a seamless work/study transition. In Queensland, organisations were established as a ‘bridge’ to link schools and different industries, such as agribusiness, construction and building, manufacturing and engineering, wine tourism, and minerals and energy. The Queensland Minerals and Energy Academy (QMEA), which is one of these organisations, is the focus of the following section which provides insights into the organisational changes enabled by VETiS.

**5.3 Hub-and-spoke organisational mode for VETiS**

The idea “hub-and-spoke” mode, also called “hub-and-spoke model” of organisation comes from the air transport industry (Alderighi, Cento, Nijkamp & Rietveld, 2007). In this study it is used to investigate and conceptualise the establishment of a particular VETiS organisation, namely the Queensland Mineral and Energy
Academy (QMEA). The QMEA was selected for this case study of the “hub-and-spoke” model because of the importance of the minerals and energy to Australia’s economy. Arguably, this industry is the mainstay of Australia’s economy; a significant contributor to the socio-economic well-being of Australians and a key informant in policy-making by Australian Governments (Singh & Cui, 2009). However, global climate change and Government policy interventions are likely to impact on this industry and its jobs. Established in 2007, the QMEA was developed in response to the then skills shortages in the minerals and energy sector, which was then experiencing significant growth, particularly in the face of increasing demand for resources from countries such as India and China. However, the ‘global financial crisis’ which began in 2008 led to job-shedding in this industry which retracted with the decline in demand for resources. However, China’s purchase of direct investment in Australia’s minerals and energy sector mitigated this downturn, although the challenges of global climate change remain.

An analysis of the QMEA documents obtained from its website provides insights into key features of the Academy and Queensland’s organisational innovations in articulating school- and work-based education and training. QMEA documents include our schools, which provide both the focus and the main data sources for this study, together with Governments’ policies. In addition, the documents also involve information and communication about documents, calendars, careers, blogs, newsletters, latest news and media gallery. Different kinds of projects are also offered by QMEA for schools, school teachers and students. QMEA has many industry sponsors in the categories of Platinum (Foundation), Gold, Silver and Bonze, who intended to ensure the sustainability of this organisation. QMEA offers an Indigenous Strategic Plan which provides information for employers, students and schools (see Figure 5.1).
The QMEA represents an instance of a ‘hub-and-spoke’ model for organising learning and earning across Years 10-12. Its head office or ‘hub’ is in Brisbane. Its spokes create links to eighteen schools (nodes), from both the public and government subsidised sectors, that is so-called private schools. Given the huge distances between the hub and the nodes, three zones – Northern Queensland, Central Queensland and Southern Queensland – have been created making shorter ‘spokes’ for encouraging inter-school collaboration. There are six schools in southern Queensland; nine in central Queensland and three in northern Queensland (see Figure 5.2).
Figure 5.2
Hub-and-spoke organisational mode of the QMEA

The QMEA’s public representations of the Academy were analysed to identify what the QMEA has to say about the place of VETiS in the development of this hub-and-spoke organisational mode, an innovation in Senior Secondary schooling. The next section begins with an analysis of the QMEA’s strategic plan, and then student pathways, projects, excursions and activities, all covering the period 2007-2009.

The QMEA is a partnership between the Queensland Resources Council (QRC), the Queensland Government, and training and academic providers. The QRC is a not-for-profit peak industry association representing Queensland companies engaged in mining, mineral processing, oil and gas production, and electricity generation. Established in 2007, the QMEA’s educational mission is to integrate learning and earning of its constituent schools by encouraging students to enter the minerals and energy industry. The QMEA enables students to enrol in subjects that focus on minerals and energy, and to participate in live-in experiences, mine and power station tours, and industry-based work experiences, traineeships and apprenticeships. QMEA’s strategic plan for 2007-2009 set out to provide relevant learning experiences and career pathways to enable young adults to take up employment in the Queensland minerals and energy industry (Table 5.1).
## Table 5.1

**QMEA strategies for 2007-2009**

| **Education:** provide relevant learning experiences through the alignment of curricula to the minerals and energy sector | Raise student awareness of the mineral and energy industries through the development and implementation of appropriate curricula and learning programs.  
Identify and implement outcomes and recommendations from the QMEA/QRC/QSA Industry Advisory Committee.  
Implement innovative strategies to build teachers’ knowledge of, and teaching methods in, the minerals and energy industry by establishing and implementing professional development opportunities.  
Recognise teacher and student achievement in minerals and energy related studies and activities. |
|---|---|
| **Industry:** build strong links with industry to create interest and career pathways for young people to take employment opportunities in the minerals and energy sector. | Establish strong industry-school relationships across all hub and gateway schools.  
Create a dialogue and identify opportunities with value-adding stakeholders.  
Enhance student employment pathways through exposure to the minerals and energy industry in operator, trade and professional areas through structured workplace learning, work experience, school based apprenticeships/traineeships and cadetships in the resources sector.  
Provide industry resources to support the development of innovative teaching and learning programs.  
Convert interest of quality students into participation in trades, operators and professional programs or direct employment that supports the minerals and energy industry. |
| **Communications:** achieve a strong and recognised QMEA brand. | Engage school leaders, industry, government and other stakeholders in the activities of the Academy.  
Forge close working relationships between hub and gateway schools, industry, training and academic providers.  
Identify and promote to students, parents and communities the educational and career pathways into the minerals and energy sector.  
Establish benchmarks for reporting on QMEA activities. |

(Source: adapted from QMEA, n.d.)

The QMEA encourages young adults from its constituent schools to seek careers in the resources sector so as to ensure that it builds Queensland’s wealth and security into the future. It offers students four interconnected learning pathways from which to choose (see Figure 5.3).
The QMEA engages in a range of projects, programs and events (see Table 5.2). It designs and delivers training courses that align with the school curriculum with providing a smoother transition for students into work and resources industry. Industry/school links are created via school-based apprenticeships and traineeships (SBAT).

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**Figure 5.3**  
QMEA student education and training pathways  
(Source: adapted from QMEA, n.d.)

<table>
<thead>
<tr>
<th>Level</th>
<th>Course Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y10</td>
<td>RIII10109 Cert I RIO</td>
</tr>
<tr>
<td>Y11</td>
<td>Apprenticeship Aptitude Testing Program Links to various trade/traineeships</td>
</tr>
<tr>
<td>Y12</td>
<td>Continuation of above Either complete at end of Y12 or Continue with trade/traineeship as employee</td>
</tr>
<tr>
<td>Post Y12</td>
<td>RII 30809 Cert III in CCPO (part/completion)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>Course Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y10</td>
<td>RIII10109 Cert I RIO</td>
</tr>
<tr>
<td>Y11</td>
<td>Diploma level traineeship commenced as SBT</td>
</tr>
<tr>
<td>Y12</td>
<td>Continuation of Diploma SAT program Post Y12 – Option 1 – complete diploma qualification as trainee/employee Option 2 – cease Diploma and continue to uni and degree</td>
</tr>
<tr>
<td>Post Y12</td>
<td>RII 30809 Cert III in CCPO (completion)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>Course Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y10</td>
<td>Subject selection and participation in QMEA tours, excursions and workshops</td>
</tr>
<tr>
<td>Ys11-12</td>
<td>Uni tours Enrichment programs with Uni Engineering camps Links to Vac based work experience Energy for the future</td>
</tr>
<tr>
<td>Post Y12</td>
<td>Commence degree pathway Link to scholarships (QRC)</td>
</tr>
<tr>
<td>Post Y12</td>
<td>Link to Vac work with sponsors</td>
</tr>
</tbody>
</table>
Table 5.2 shows the QMEA provided diverse projects and activities for both students and teachers in its constituent schools. To engage those students and teachers to the minerals and energy industry it offers both in-school and outside school training. The evidence above indicates that the hub-and-spoke organisational mode operates to provide young adults with diverse educational and training, and thus options and opportunities for employment in minerals and energy industry.

5.4 Vocationalism, integration of education and production, schooling and Governments’ policies

So far, this analysis of these four policies mentioned in the introduction of this Chapter has identified the key features of Government aims, attitudes, strategies and issues relating to organisational changes in Senior Secondary Schooling through VETiS. Following this analysis of the evidence, I undertook a further analysis of this
evidence as well as key concepts drawn from the theoretical framework (see Chapter Two). This analysis of the evidence in this Chapter seeks to provide a better sense of the organisational changes in Senior Secondary Learning through VETiS in the light of Government policies.

Table 5.3
Vocationalism and the New Framework for Vocational Education in Schools

<table>
<thead>
<tr>
<th>Aim</th>
<th>Attitude</th>
<th>Strategy</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>-integration sustainability</td>
<td>-major pathway</td>
<td>-observance</td>
<td>Key Element 1</td>
</tr>
<tr>
<td>-recognition</td>
<td>-universally</td>
<td>-implement</td>
<td></td>
</tr>
<tr>
<td>-market acceptance</td>
<td>applicable</td>
<td>-arrangement</td>
<td></td>
</tr>
<tr>
<td>-accessibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-opportunity expansion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-enhance transition</td>
<td>-conducive</td>
<td>-skill access</td>
<td>Key Element 2</td>
</tr>
<tr>
<td>-accessible to enterprise</td>
<td></td>
<td>-identify</td>
<td></td>
</tr>
<tr>
<td>-increase awareness</td>
<td></td>
<td>-implement</td>
<td></td>
</tr>
<tr>
<td>-diverse information</td>
<td>-vital</td>
<td>-continual provision</td>
<td>Key Element 3</td>
</tr>
<tr>
<td>-decision making</td>
<td>-growing</td>
<td>-cooperation</td>
<td></td>
</tr>
<tr>
<td>-overcome difficulties</td>
<td>realisation</td>
<td>-available services</td>
<td></td>
</tr>
<tr>
<td>-partnership application</td>
<td>-centrality</td>
<td>-help</td>
<td></td>
</tr>
<tr>
<td>-encourage and facilitate</td>
<td>-growing evidence</td>
<td></td>
<td>Key Element 4</td>
</tr>
<tr>
<td>-integrate and coordinate</td>
<td></td>
<td>-establish and develop</td>
<td></td>
</tr>
<tr>
<td>-nationally agreed</td>
<td></td>
<td>-diverse learning setting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-more effective</td>
<td>-support and allow</td>
<td>Key Element 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-data collect</td>
<td>Key Element 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-track &amp; monitor</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-identify and help</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.3 explores the connection between Government VETiS policy and the concept of vocationalism. The increasing emphasis on vocational education and training in Australian schools is an organisational challenge. There has traditionally been “an historical bias against vocational education within secondary schools, which has, among other things, resulted in a marked reluctance to promote apprenticeships and traineeships as desirable pathways for students” (Dalton & Smith 2004, 509). However, Australian Governments have made VETiS a major pathway for young adults, making it universally accessible throughout Australia, because “the existing schools failed to address the needs of most students, particularly adolescents between fourteen and sixteen” since not all young adults are academically oriented (Kliebard, 1999, p. 34). Furthermore, vocational education and training in schools aims to supplement the capacities of the Australian workforce in
terms of ‘green’ skills and knowledge, otherwise, young adults might take “dead-end jobs which had no possibilities for advancement” (Kliebard, 1999, p. 34).

The evidence analysed indicates that Government disposition towards VETiS is positive. The aim of this policy is to enhance the transition of the young adults from school to work or further education and training; to increase the awareness of the young adults about the nature of the job market by providing accessible information; and to encourage collaboration between different levels and agencies. Vocationalism became integrated into a new national education policy. However, vocationalism underestimates the rapid advances of technology and the ever-changing nature of the labour market. The growing specialisation in industries and the assembly line has had “a major de-skilling effect in the workplace, and this reduced sharply the need for extensive vocational training” (Kliebard, 1999, p. 137). In this case, ‘green skills’ training is necessary, if not an imperative to meet the newly emerged needs to address global climate change.

The effort to prepare young adults for the demands of the workplace is interlinked with the effort to adjust future citizens to the socio-economic conditions. The implication was that with the exception of one third of the young adults believed to be academically oriented, all high school students are supposed to be directed toward vocational education and training because it is now difficult “to visualise any other purpose to secondary education besides getting ready for work” (Kliebard, 1999, p. 205). Thus, organising the integration of learning and earning through VETiS became necessary and imperative.

<table>
<thead>
<tr>
<th>Key concept</th>
<th>Issue</th>
<th>Tactics</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration of education &amp; production</td>
<td>-challenge</td>
<td>-observance</td>
<td>New Framework (MCEETYA, 2001)</td>
</tr>
<tr>
<td></td>
<td>-taking time</td>
<td>-implement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-rapidly changing</td>
<td>-arrangement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-lack broadening and inclusion</td>
<td>-skill access</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-need linkage</td>
<td>-identify</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-need quality information</td>
<td>-continual provision</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-more requirements</td>
<td>-cooperation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-need systemising</td>
<td>-establish and develop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-vulnerable and at risk</td>
<td>-support and allow</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-modify</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.4 Organising the integration of education and production via VETiS
Table 5.4 explores the connection between the evidence analysed in this Chapter and Bernstein’s (1977) conceptualisation of the integration of education and production (See Chapter Two). It shows the strategies that the integration of education and production is expected to bring the organisational changes into Senior Secondary Learning through VETiS. There are correspondences and contradictions in the QMEA’s efforts to organise the integration of education and production due to divisions within education and training, and between these and production. The supposed autonomy of Senior Secondary schools from production is being interrupted by Government’s VETiS policies and the implementation of these by schools as they establish systematic relationships between education and production, that is between learning and earning. However, it says nothing about the partnerships between school communities and industry, which is also an effective means in organising pathways. If the division between education and production is strong, the principles, contexts and possibilities of education are not integrated with production; if it is weak, then integration may occur (Bernstein, 1977).

Rejecting the segregation of education and production, Australian Governments are integrating young adults’ learning to different industries through partnerships. By systematically integrating education and production the aim is to better assist young adults in finding not only ‘green’ jobs. Thomas, Lane, Ribon-Tobonb and May (2007)

| Integration of education & production | -dependence of individual capacity, industry competitiveness, and community adaptability  
-VETiS complexity  
-variation of availability and quality  
a few industries involved  
-barriers between VETiS and university | -partnership with industry, providers and other stakeholders  
-diverse participation  
-sustained investment  
-flexible funding  
-strengthen industry’s role  
-make pathways seamless  
-improve quality and consistency  
-facilitate access  
-monitor and measure | ANTA (nd) |
| Integration of ed & prod | -student support services | -streamline relationships  
| Integration of ed & prod | -job transformation  
-identification of skills | - Engagement  
- Enhancement  
- Delivery | Action Group & Ministerial Council (nd) |
| Integration of ed & prod | -engage young adults in the minerals and energy sector | -align curricula to minerals and energy  
-strong link with industry  
-diverse offer and support | QMEA on-line documents |
surveyed 600 Australians working in ‘green’ jobs. The majority of respondents indicated that in order to gain employment and be successful in many of these jobs, potential employees need to be highly competent in a range of skills developed through structured work experiences as well as academic studies. The respondents indicated that access to ‘green’ jobs is assisted by “work experience (paid or unpaid) [whereby young adults] enhance their employability — the vast majority of respondents had been involved in some form of work experience” (Thomas, Lane, Ribon-Tobonb & May, 2007, p. 108). Thus, there are numerous challenges for policy-makers to address to integrate education and training for the ‘green’ economy students in Years 10-12 are likely to obtain.

In making organisational changes, policy represents both power and control. There exist similarities between the controls on the contexts of both production and education. Any similarities in organisational contexts indicate possible connections between education and production, establishing a changing direction and material basis for Senior Secondary Schooling (Bernstein, 1977). From this perspective, power and control are essential for overcoming the division which create particular contexts and forms of educational practice. The integration of education and production form both the class and the material basis of education. It creates for education the form of its economic or material base. This relation indicates “the dependency of education upon the mode of production” (Bernstein, 1977, pp. 186-7) because the mode of production appears before the mode of education. Possibly only the integration of the two may produce the best results. The Governments seem to recognise this issue through the advocacy of integration strategies in their policies, such as the New Framework.

<table>
<thead>
<tr>
<th>Data source</th>
<th>Aim</th>
<th>Strategy</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>QMEA strategy</td>
<td>Provide relevant learning experiences and career pathways</td>
<td>-align curricula to the minerals and energy sector -building strong links with industry -achieve a strong recognition</td>
<td>QMEA initiatives</td>
</tr>
<tr>
<td>Student learning pathway</td>
<td>Provide diverse pathways for different young adults</td>
<td>-operator -trade -para professional -professional</td>
<td>Student training pathways</td>
</tr>
<tr>
<td>Projects,</td>
<td>Provide experience and</td>
<td>- in-school training</td>
<td></td>
</tr>
</tbody>
</table>
Table 5.5 explores the connection between QMEA’s organisational mode and the concept of schooling. Schooling is organised as “a socially efficient and self-regulating educational ‘machine’” (Hamilton, 1989, p. 25), because it is both an agency of state-led social regulation and a potential site for social change. Where schooling is thought of as being separated from the society, it remains “‘of’ society but ceases to be ‘in’ society” (Hamilton, 1989, p. 154). The reform of schooling involves efforts to settle the educational interests of the individual with those of the social group. It was held that the “civilising influence of schooling would be weakened” if it refused to be ‘in’ the society (Hamilton, 1989, p. 110). The QMEA’s organisational mode sanctioned the relative independence of Senior Secondary schooling from industry, something which VETiS and the QMEA are trying to change. This apparent independence is likely to diminish the prospects for establishing a direct relationship between schooling and industry. Given the role of the minerals and energy industry in global climate change this is a significant issue, as it keeps education from addressing what is now required. If the aim of the school is to “cultivate individuality”, then the design of “individual occupations” is a goal to be placed at the centre of schooling (Hamilton, 1989, p. 114). Young people’s schooling was not organised to recognise their part-time work for individual occupations. School-to-work transition (STWT) was the first focus for re-organising schooling/industry relations. The success of STWTs was integrally related to organisational changes within schools. Now work-integrated learning promises to help young adults obtain accreditation towards their Senior learning so as to position them favourably in an increasingly complex labour market.

However, the mode of organising schooling under conditions of advanced, global capitalism is now becoming even more complex. To effect the organisational integration of schooling and minerals and energy industry, and to provide students with improved transition from school to work in this area, schools are being positioned ‘in’ and ‘for’ the society. Now selected schools are being re-organised to form an extended learning through the QMEA’s initiatives. The intention is to create

<table>
<thead>
<tr>
<th>excursions and activities</th>
<th>support options and opportunities</th>
<th>-activities</th>
<th>-student and teacher support</th>
<th>Experiences and support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview of QMEA website</td>
<td>Provide an overall picture</td>
<td>Diverse</td>
<td>Offer and support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of the Academy</td>
<td>offering</td>
<td>support</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting fields</th>
<th>Overview of QMEA website</th>
<th>Provide an overall picture of the Academy</th>
<th>Diverse offering and support</th>
<th>Offer and support</th>
</tr>
</thead>
<tbody>
<tr>
<td>excursions and activities</td>
<td>support options and opportunities</td>
<td>-activities</td>
<td>-student and teacher support</td>
<td>Experiences and support</td>
</tr>
<tr>
<td>Overview of QMEA website</td>
<td>Provide an overall picture of the Academy</td>
<td>Diverse offering and support</td>
<td>Offer and support</td>
<td></td>
</tr>
</tbody>
</table>
better pathways for students into tertiary education, further training, or full-time work or combinations of these. While this may make the organisation of Senior Learning more complicated, this mode has the prospects to be effective and beneficial for the young adults who are interested in seeking careers in the mineral and energy industries.

The question of whether vocational education and training actually provides the skills needed for modern workplace remains an open question, even though the Government had made efforts to meet the demands for new labour. From the history of vocationalism it seems that from “the accomplishments and disappointments of vocational education and the value of schooling in occupational achievement” (Kliebard, 1999, p. 211), no single factor was decisive. Moreover, the global financial crisis had considerable negative effects on the labour market, which meant the young adults had to seek jobs outside of their chosen field. As established, this means that “vocational education is no cure for unemployment” (Menefee cited in Kliebard, 1999, p. 217). Multi-level, multi-agency collaborations and partnerships are a possible organisational solution.

5.5 Conclusion

This Chapter has followed two different approaches to analyse the policy documents that are fundamental to this research. It has explored the organisational changes implied in the New Framework for Vocational Education in School (2001) using a dramaturgical coding method (Saldaña, 2009). This empirical approach to policy analysis helps to better understand the objectives, attitudes, conflicts, strategies, emotions, and implied meaning in this New Framework. This approach offers an informed representation of the information that is conveyed in the New Framework by vividly interpreting its terms and conventions. Another three related policies were analysed using excerpt-commentary analysis (Emerson, Fretz & Shaw, 1995). The most important factor promoted by these policies was the promotion of partnerships between schools and industries. An initial analysis of the Queensland Minerals and Energy Academy, conceptualised in terms of the hub-and-spoke model (Zäpfel & Wasner, 2002) provided insights into organisational changes in school/industry partnerships. This data was theoretically interpreted using key concepts from Chapter Two. After demonstrating how both the empirical and normative concerns that
emerge in these policies are interrelated, the coded data was searched to identify the prominent categories in the corpus to decide which codes warrant further investigation into organisational change. It is found that the most important categories are related to organising students’ core and extra curricula offerings in VETiS; teachers’ professional learning; schools’ public communication; and student outcomes. In the following four Chapters, that is Chapters Six through to Chapter Nine, data concerning these categories of the ‘hub-and-spoke’ organisational mode are analysed and interpreted respectively.
CHAPTER SIX
ORGANISATIONAL CHANGES IN CURRICULUM KNOWLEDGE

6.0 Introduction

The data analysis in this evidentiary Chapter is organised by means of a First Cycle analysis (evidentiary-commentary analysis) and then a Second Cycle (theoretical analysis). This accords with the innovative and rigorous procedure recommended by Saldaña (2009). To reiterate the point made by Saldaña (2009, p. 45) in Chapter 5, “First Cycle methods are those processes that happen during the initial coding of the data.” The data were divided into subcategories and an evidentiary profile created based on the emergent themes. These subcategories are interpreted with regard to the data that is actually analysed, using an inductive style. Second Cycle data analysis requires such skills as “abstracting, conceptualising, and theory building” (Saldaña, 2009, p. 45). These analytical procedures were adopted because of the nature of the research questions, the data to be analysed, and the need to develop and test new approaches to data analysis in the field of education research, a field in which critical discourse analysis seems to be very popular.

A good researcher needs to be a good listener. Listening includes “observing and sensing more generally and is not limited to the aural modality” (Yin, 1994, p. 57). In addition to listening to what the interviewees or participants say, a researcher also needs to ‘listen’ to what school documents say. Being a good listener means having an open mind and being able to incorporate large amounts of information without bias. This skill is necessary for the analysis of documentary evidence in this study so as to ascertain whether there are “any important message between the lines; any inferences would need to be corroborated with other sources of information” (Yin, 2003, p. 60). Therefore, in the following four Chapters, I will ‘listen’ to a range of documents from schools to analyse the important messages contained in them. The documents – School Annual Reports for 2007 and 2008, Next Step survey for 2008-2010 and school communicationS about VETiS for 2009 drawn from the newsletters of school websites – came from 18 schools under the Queensland Minerals and Energy Academy (QMEA). School Annual Report for 2009 is not included in this study because at the time of collecting and analysing the evidence, some schools’
Annual Reports were not available on their schools’ websites. Likewise, the newsletters of 2008 for most schools were not accessible on their websites at that time. These documents are analysed with regards to curriculum offerings, teacher professional learning, public communication and student outcomes. The analysis of these public documents helped reveal what else might be done for young adults to have a better transition from school to work and/or further education and training.

6.1 Method of document analysis

Evidence for this case study came from a variety of sources, including documents. The researcher can use one or several of these sources alone or in combination, depending upon the problem being investigated (Corbin & Strauss, 2008). For this case study, an important issue concerned the use of documents to confirm and supplement evidence from other sources. Documents are helpful not only “in verifying the correct spellings and titles or names of organisations [but also in providing] other specific details to corroborate information from other sources, [in addition to that] inferences can be made from documents” (Yin, 2003, p. 87). Therefore, documents need to be searched systematically because of the explicit role they played in the data collection and analysis of the research reported in this thesis. Another point which deserves mentioning here is that documents were usually used as supplementary evidence in a case study whose main data source was interviews. However, I used the documents as a primary source of data with interviews as supplementary evidence in part because of the influence of these documents on school education and the significance of the information presented in them. The documents analysed in this Chapter were QMEA School Annual Reports for 2007 and 2008. They were analysed in terms of VETiS curriculum offerings.

Reforms of VETiS have raised various critiques. In the past few decades the focus was almost entirely on the supply side of the VET market. However, of the major issues they have been given little attention, a key concern is “the question of vocational knowledge and the VET curriculum” (Young, 2008, p. 137). School curricula may be thought of as the formal documents used to guide the courses delivered by schools. They contain details about the courses of study all the students of a school need to follow with varying degrees of choices. So ‘curriculum’ in this
sense is defined as “the entire multi-year courses followed by each student, not to shorter pedagogic units”, typically, should “not only be ‘followed’; it should also be ‘completed’” (Hamilton, 1989, p. 45). This is because it is believed that “‘normal’ boys and girls could follow a core curriculum, individual (and remedial) methods were occasionally necessary to bring the ‘different members of the class into line’ so that, thereafter, all could ‘participate profitably in the class work’” (Hamilton, 1989, p. 135).

This is usually not the case in practice, however. Then what do public representations of QMEA schools’ curricula say about the offering of VETiS related courses and/or activities? This Chapter deals with these issues. From these reports it was possible to identify what VETiS courses and/or activities each QMEA school offered in its core and extra curriculum offerings. This also enabled consideration of the differences in organisational changes between 2007 and 2008. In total, there were eighteen QMEA schools during the period 2007-2008, three in Northern Queensland, nine in Central Queensland and six in Southern Queensland. In 2010, one of the eighteen schools withdrew from the QMEA, but ten others joined it.81

An important issue in planning this study of these documents was “the question of availability” (Bogdan & Biklen, 2007, p. 65) and the comparability of the information in these documents. Some QMEA schools did not use Educational Queensland standard template for School Annual Reports, so they did not provide the same kind of information about their VETiS practices as the other QMEA schools did, which made comparative analysis in these instances impossible. Thus, I could only undertake a comparative analysis of the evidence from those QMEA schools that provided the information about VETiS (see Table 6.1). For the core and extra curricula offerings of each QMEA school, details about both academic and vocational courses were provided by the majority of schools. For the purposes of the

81 The QMEA is extending its reach with seven schools across the Surat Basin (Toowoomba to Roma) taking off with Australia’s up and coming gas-fired generation. Participating schools are: Chinchilla State High School, Dalby State High School, Downlands College, Toowoomba Oakey State High School, Pittsworth State High School, Roma State College, and Toowoomba State High School

In February 2010, the QMEA, Xstrata Coal and Education Queensland signed off on a three year agreement that saw Wandoan State School, Miles State High School and Taroom State School join the QMEA (QMEA Newsletter, April, 2010).
research in this Chapter, only those VETiS related courses/activities offered by the QMEA schools were selected for analysis. The academic courses were omitted from the analysis reported here due to the need to the length of the thesis and to maintain the focus of investigation. However, the academic courses are included in two Tables (see Table 6.13 and Table 6.14) for the purpose of comparison.

Table 6.1
QMEA schools with VETiS related courses and/or activities offered in the curricula

<table>
<thead>
<tr>
<th>School</th>
<th>Core (VETiS)</th>
<th>Extra (VETiS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>LONY</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>KAN</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PINI</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MARO</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PEER</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DASY</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MERA</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>BATER</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>BOLA</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>RICK</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>TOAL</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NOA</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NANA</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>BAMA</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>VELA</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ALAN</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MIST</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>AKAN</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Table 6.1 explores the VETiS related courses and/or activities offered (or not) in the curricula of eighteen QMEA schools. Among these schools, six schools offered VETiS related courses and/or activities in both core and extra curricula offerings, two of these schools were from Northern Queensland and four were from Central Queensland. Three schools did not report offering VETiS related courses or activities in either core or extra curricula, two of these schools were from Southern Queensland, and one was from Central Queensland. Nine of the eighteen schools offered VETiS courses and/or activities in the core curricula. In order to investigate the features of VETiS related courses offered in the core curricula and VETiS related activities provided in the extra curricula, the curricula from the fifteen QMEA
schools reporting that they offered VETiS related courses and/or activities are selected for analysis in the following sections.

6.2 Changes in organising knowledge in QMEA school curricula

In Australia the growth of post-compulsory schooling has been based largely upon the assumption of “the continuation of the general curriculum of the compulsory years, albeit with increased subject specialisation for most students, with an emphasis upon preparation for university entry” (Smith, 2004, p. 561). This is because curriculum is regarded as “the specification and sequencing, in terms of content, of the knowledge and skills that a learner is expected to have acquired if s/he is to be awarded a National Certificate (Vocation) in one of the 13 occupational fields” (Young, 2008, p. 173). It was believed that “secondary education is part of a broader life-long learning process and will therefore move across traditional discipline boundaries, leading implicitly or explicitly to integrated forms of curriculum” (Bardsley, 2007, p. 498).

Even so, different schools now provide varied VETiS offerings as part of their school curricula. The reported VETiS offerings of the QMEA schools were found to change from 2007 to 2008 in some schools, specifically PINI, BOLA, DASY, KAN, RICK and TOAL (see Tables 6.2-6.7). PINI provided VETiS courses and/or activities in both core and extra curricula. However, it offered more VETiS courses and/or activities in the extra curriculum than as part of the core curriculum.

Table 6.2
VETiS courses and/or activities offered by PINI

<table>
<thead>
<tr>
<th>Y</th>
<th>Core curriculum</th>
<th>Y</th>
<th>Extra curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>In partnership with Xstrata, Mount Isa Mines we introduced a Bursary program for year 11 students. Selected students attend Xstrata one day a week in year 11 and during their holidays. This is then progressed into a School-Based Apprenticeship or Traineeship (SAT) once students have identified their area of preference.</td>
<td>0</td>
<td>• SAT yrs 10-12</td>
</tr>
<tr>
<td>7</td>
<td>• Xstrata Bursaries – yr 11-12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>• Siemens Science Summer School – yrs 10-12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>• QMEA – Outback @ Isa excursions, Senior Engineering Camp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>• SAT yrs 10-12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>• SIPs yrs 10-12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>• Xstrata Bursaries – yr 11-12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>• Siemens Science Summer School – yrs 10-12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>• QMEA – Outback @ Isa</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In partnership with Xstrata, Mount Isa Mines, PINI reported providing in the core curriculum Xstrata Bursary program for Year 11 students in 2007. This could lead into a school-based apprenticeship or traineeship if students preferred. This program was done one day a week and during school holidays. In addition to continuing the program delivered in 2007, PINI embedded TAFE courses into the school timetable in the core curriculum in 2008. This suggests that broader options for Senior students were being made available. The extra-curricula offerings at PINI included the same series of VETiS activities in both 2007 and 2008, including Structured Industry Placements (SIPs), Xstrata Bursaries, Siemens Science Summer School and the QMEA’s ‘Outback at Isa excursions’. The school reported offering school-based apprenticeships/traineeships for Years 10-12 as extra curricula activities.

A similar situation occurred at BOLA. However, a distinctive difference was that BOLA made it clear in its Annual Reports that it was a QMEA school and part of Gladstone Hub (see Table 6.3).

**Table 6.3**

<table>
<thead>
<tr>
<th>Y</th>
<th>Core curriculum</th>
<th>Extra curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>- Range of TAFE subjects including Certificate courses in Beauty, Hairdressing, Childcare, Retail and Business Administration</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>- Work Experience programs in both Years 10-11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- School Based Apprenticeship &amp; Traineeship program</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>- Range of TAFE subjects including Certificate courses in Childcare, Retail and Business Admin</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>- Work Experience programs in both Years 10-11.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- QMEA – Member School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- SBAT program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Industry Programs- Step Out Bricklaying Program,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing Awareness Skills program</td>
<td></td>
</tr>
</tbody>
</table>

In the 2007 core curriculum, BOLA provided its Senior students with a range of TAFE subjects, including Certificate courses in Beauty, Hairdressing, Childcare,

---

82 Xstrata is a major global diversified mining group, listed on the London and Swiss stock exchanges, operating a diversified world-wide portfolio of metals and mining businesses with the aim of delivering industry-leading returns.
Retail and Business Administration. It also offered a work experience program and School-based Apprenticeships and Traineeships (SBAT) program. These courses were included in the 2008 core curriculum. BOLA also self-identified as a QMEA member school, being embedded in its Industry Programs, incorporating Step Out Bricklaying Program and Manufacturing Awareness Skills Program into its curriculum. In its extra-curriculum offering, BOLA conducted the same activities in both 2007 and 2008. These activities were all QMEA related, namely Reengineering Australia Hub School, QMEA – Member school as part of Gladstone HUB, and QMEA Physics, Mining and Dream World Tour. This signals BOLA’s positive attitudes to VETiS, its productive relationship with the QMEA and the valuing of VETiS in the school.

DASY gave greater flexibility for students to engage in vocational education but no specific VETiS related courses were presented in the School Annual Reports in both 2007 and 2008. About half of their students continued on to complete further studies. In the extra curriculum of 2007, specific VETiS related activities were presented, namely Animal Care, ‘Blue’ Card Construction, Hospitality, Bar Service, and Billiton Mitsubishi Alliance (BMA) ‘adopt-a-student’. In addition to these activities, in the curriculum of 2008 BMA Mine Camp was offered for Overall Position (OP) eligible students. This program gave priority to OP students, which indicated that this school highly valued academic or university bound students (see Table 6.4).

83 Jointly owned with Mitsubishi Development Pty Ltd, BHP Billiton Mitsubishi Alliance (BMA) is Australia’s largest coal miner and exporter, and the world's largest supplier to the seaborne coking coal market.

84 The adopt-a-student program is an innovative response to the educational needs of the poor, abandoned and disadvantaged children in communities who need financial assistance to gain access to quality education. Adopting a student simply means being financially responsible for their educational costs: tuition, uniforms, books, and school levies. These are costs that typically prevent poor students from going to school. The program allows 100% of an individual’s donation to go directly to the student. The donation, irrespective of how small or large, goes a long way in funding both a student’s school costs and after-school tutoring.
Table 6.4
VETiS courses and/or activities offered by DASY

<table>
<thead>
<tr>
<th>Y</th>
<th>Core curriculum</th>
<th>Extra curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Senior students are given greater flexibility to engage in vocational education with approximately 1/2 of students continuing on to complete further studies.</td>
<td>0 7 • DASY Youth Training Centre: Animal Care, Blue Card Construction, Hospitality, Bar Service • BMA &quot;Adopt-A-Student&quot;</td>
</tr>
<tr>
<td>0</td>
<td>Senior students are given greater flexibility to engage in vocational education with approximately 1/2 of students continuing on to complete further studies.</td>
<td>8 0 • DASY Youth Training Centre: Animal Care, Blue Card Construction, Hospitality, Bar Service • BMA &quot;Adopt-A-Student&quot; • BMA Mine Camp for OP eligible students</td>
</tr>
</tbody>
</table>

By participating in the QMEA, the close links with BMA coal mines enabled DASY to undertake Adopt-a-Student program, Mine Tours, and make direct curriculum links to professionals on the mine sites. As a result, students obtained apprenticeships, completed the Certificate I Resources and Infrastructure Organisation (RIO) and were being groomed to undertake university courses in areas of industry need with Year 12 school leavers being able to compete for one of five tertiary scholarships from BMA.

KAN is different in that it offered many VETiS courses as part of its core curriculum instead of as extra-curricula offerings. These were offered through various means (see Table 6.5).

Table 6.5
VETiS courses and/or activities offered in core curricula of KAN

<table>
<thead>
<tr>
<th>Y</th>
<th>Core Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Fourteen Certificate I, II and III courses in: Construction; Engineering; Furnishing; Information Technology; Hospitality; Retail; Tourism; Childcare; Business; Visual Arts and Contemporary craft; Outdoor Recreation; Sport; Sport and Recreation; Work Education</td>
</tr>
<tr>
<td>7</td>
<td>In addition, students in Year 10, 11 and 12 are given the opportunity to attend Barrier Reef TAFE to undertake further Certificate II and III courses. This usually occurs for one full day per week throughout the school year. Courses offered through TAFE TAFE offers a number of short courses over one full week Industry bodies offer blocks of training Work Experience Industry Placement program for students studying Vocational subjects a VET teacher placement in industry program Our school also employs school-based and full-time apprentices and trainees.</td>
</tr>
<tr>
<td>8</td>
<td>Our VET offering is substantial. We offer fourteen Certificate I, II and III courses in: Construction; Engineering; Furnishing; Information Technology; Hospitality; Retail; Tourism; Childcare; Business; Visual Arts and Contemporary craft; Outdoor Recreation; Sport; Sport and Recreation; and Work Education.</td>
</tr>
</tbody>
</table>
The evidence indicates that in 2007 and 2008, KAN offered their Senior students Certificates I, II, and III courses in fourteen areas. These VETiS courses were offered through TAFE including short courses; industry bodies offered blocks of training, along with work experience and industry placements. Senior students at KAN had the chance to attend Barrier Reef TAFE to undertake Certificate II and III courses. Its teachers were also provided with a VET placement in industry. In addition, KAN employed school-based and full-time apprentices and trainees. No other information was presented about VETiS courses in the core curriculum. This suggests that some VETiS programs at this school were “either of very little or such similar substance to the existing school curriculum that they are not acknowledged as vocational education and training” (Anlezark, Karmel & Ong, 2006, p. 49).

RICK provided its students with a limited range of VETiS related offerings, which were all located in the core curriculum (see Table 6.6).

<table>
<thead>
<tr>
<th>Y</th>
<th>VETiS courses and/or activities offered by RICK</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>- Formula 1 Engineering</td>
</tr>
<tr>
<td>7</td>
<td>- Cert III in Tourism (the only Australian High School to offer this program)</td>
</tr>
<tr>
<td></td>
<td>- Largest range of school-based traineeships in region</td>
</tr>
<tr>
<td></td>
<td>- POPIT program – on site trades</td>
</tr>
<tr>
<td>0</td>
<td>- Formula 1 Engineering</td>
</tr>
<tr>
<td>8</td>
<td>- Cert III in Tourism (the only Australian High School to offer this program)</td>
</tr>
<tr>
<td></td>
<td>- Largest range of school-based traineeships in region</td>
</tr>
</tbody>
</table>

RICK provided its Senior students with Formula 1 Engineering, Certificate III in Tourism, School-based Traineeships and Pinnacle of Partnership in Training (POPIT) program. RICK is “the only Australian High School to offer this program [Certificate III in Tourism]” (Annual Report, 2007). The POPIT program was cancelled in 2008 due to funding issues.

While TOAL did not provide many VETiS offerings in its core curriculum in 2007, it added three VETiS programs to its curriculum of 2008 (see Table 6.7).
Table 6.7
VETiS courses and/or activities offered by TOAL

<table>
<thead>
<tr>
<th>Y</th>
<th>Core Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>- The Gladstone Schools Engineering Skills Centre (Senior)</td>
</tr>
<tr>
<td>08</td>
<td>- The Gladstone Schools Engineering Skills Centre (Senior)</td>
</tr>
<tr>
<td></td>
<td>- Doorways to Civil Construction (Year 10)</td>
</tr>
<tr>
<td></td>
<td>- BITS Extension Administrative and Business Studies (Senior)</td>
</tr>
<tr>
<td></td>
<td>- Work Experience opportunities (Years 10 – 12)</td>
</tr>
</tbody>
</table>

TOAL established the Gladstone Schools Engineering Skills Centre which provided its Senior students with engineering skills. There were no other VETiS related courses presented in the core curriculum of this school’s 2007 Annual Report. In 2008, the core curriculum offerings included three new VETiS courses, namely Doorways to Civil Construction, Background Intelligent Transfer Service (BITS) Extension Administrative and Business Studies, and Work Experience. This indicates that this school was either building up its VETiS provision or including items overlooked in its previous report.

NANA reported offering different VETiS courses and/or activities in 2007 and 2008. The Annual Reports indicate that this school was trying to improve the effectiveness of the VETiS courses and/or activities provided for its students (see Table 6.8).

Table 6.8
VETiS courses/activities offered by NANA

<table>
<thead>
<tr>
<th>Y</th>
<th>Core Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>- a range of QSA registered subjects providing vocational outcomes, including Certificates II in a number of areas. These subjects are often linked to school-based traineeships.</td>
</tr>
<tr>
<td></td>
<td>- an agricultural program involving extensive cattle breeding, handling and showing</td>
</tr>
<tr>
<td>08</td>
<td>- 6 Vocational Education &amp; Training (VET) Certificate I &amp; II Courses</td>
</tr>
<tr>
<td></td>
<td>- Strong Partnership Agreements with TAFE (SQIT) for on-site and off-site delivery of Certificate I, II &amp; III courses</td>
</tr>
</tbody>
</table>

In 2007 NANA offered a range of Queensland Studies Authority (QSA) registered subjects via school-based traineeships providing vocational outcomes. An agricultural program was also included in the core curriculum of 2007, involving cattle breeding, handling and showing. However, in the core curriculum of 2008, the reported offerings were quite different. Six VET Certificate I and II courses were reported as being offered to their Senior students. NANA had a partnership agreement with TAFE for both on-site and off-site delivery of Certificate I, II and III courses. The reason for different offerings being reported could be that NANA
continued all the VETiS programs offered in 2007, but highlighted the additional offerings made in 2008.

From the analysis of the evidence above, it can be seen that these schools were organising their curricula to include VETiS and the trend tended to be positive in most QMEA schools. Some schools reported providing more VETiS courses and/or activities than others, and some reported making more changes. Not all schools are preceding at the same rate with flexible provision of VETiS for their students. As with any organisational changes, Asher (2005) find that some schools react faster than others, but work related entitlement is accelerating the rate of change, particularly the increased flexibility of programs established through school/college/industry partnerships. The number of schools offering VETiS programs has grown so that in 2003, “over 95% of all [Australian] schools provided senior secondary programs included school VET programs in their curricula” (Anlezark, Karmel & Ong, 2006, p. 14). This often means clusters of schools working together, and therefore the need for a common timetable across groups of schools to enable students from different schools to participate in college courses or work placements at the same time. There are “greater numbers of pupils working with training providers and skills groups of sectors than previously and a greater need for closer co-operation with employers” (Asher, 2005 p. 66). This provides the possibility for schools and industries to partner with each other.

Schools increasingly are looking for different models and learning objectives from both learning and earning. The QMEA schools reflect these continuing developments. There is clear recognition in their core and extra-curricula offerings of the need to establish clear links between the world of work and school to develop wider key skills. These skills can be enhanced by effective preparation and debriefing about the work experience itself (Asher, 2005). The organisation of the QMEA schools’ core and extra-curricula offerings appear to meet requirements for better articulated and more career focused offerings in VETiS. The QMEA school offerings parallel those provided in New South Wales:
1. applicability to all providers so that HSC students undertake the same courses whether the courses are delivered by a school, by a TAFE college or by another RTO on behalf of a school;
2. the addition of different strands to enable the selection of a particular pathway that may lead to a specific occupational outcome;
3. work placement requirements to reflect more accurately the length of the working week (Crump & Stanley, 2005, p. 11).

Over a decade ago, in 1997, House of Representatives (Curtin cited in Taylor, 2005, p. 212) advocated that in addition to comprehensive literacy and numeracy teaching and testing in schools and universal Year 12 completion or its equivalent, there should be “more structured workplace experience and more careers education and guidance at the school level”. Testing in compulsory education or training to Year 12 (or the equivalent) and VETiS are now institutionalised. Whether this delivers on business expectations for schools to play a significant role in the development of curricula to teach and measure employability skills is a continuing focus of public debate.

The VETiS courses provided in QMEA schools’ curricula are aligned with the national VET qualifications, providing students with the opportunity to develop [those] “workplace competencies which industry had determined were required by an entry-level employee” (Stanley, 2007, p. 96). The QMEA schools are crossing core and extra-curricula borders, and borders between providers of secondary education and training to provide their students with entry into skilled employment and making staying on Year 12 more attractive. By so doing, the QMEA schools are experiencing the benefits that Smith (2004, p. 570) reported elsewhere:

1. increased retention rates by offering a broader curriculum;
2. increased attractiveness to students about to enter Year 11 and their parents;
3. establishment of beneficial relationships with local employers;
4. students who are more interested in their studies and therefore easier to manage.

Both the core and extra-curricula offerings constitute important organisational features of the QMEA schools. Thus, changes in organising the QMEA schools’ collective attributes and properties seem to be necessary and imperative. Depending on the desired learning outcomes and schools’ timetable, flexible VETiS curricula could be such that:
in Year 8 and 9 they would do the contextualised curriculum. They’d do four weeks per subject and then they go into Year 10. In Year 10 they would get into some more contextualised curriculum, so it continues the flavour. And then they would engage in a prevocational program and bringing the Certificate 1 level programs or qualifications into play in Year 10, rather than 11 and 12, where often it sits. So a little bit earlier in terms of the engagement, because industry has said to us that we like young people who have entry level skills (Maggie, Regional Partnership Manager, Aug 4, 2009).

The work placements for students could be for one or two week blocks, or for several days a week over an extended basis for up to a year. There is a growing pool of employers from a wide variety of sectors who provide safe, high quality work placements:

In the manufacturing study area, there are two current approaches in the curriculum. One of those is around a qualification, usually a Certificate I qualification. In some instances, it’s a Certificate II. With the approach B, there is no qualification attached to that. It’s just the general manufacturing and engineering related teaching. But it might take on various strands of that particular sector or others (Maggie, Regional Partnership Manager, Aug 4, 2009).

These continuing changes in the core and extra-curricula offerings of the QMEA schools aim, in part to better meet the needs of young people, and thus enable them to both learn and earn.

6.3 The variety of VETiS offerings in schools’ core and/or extra curricula

The previous section showed that there were not many changes between 2007 and 2008 in the VETiS offerings in the curricula of those QMEA schools. However, evidence in this section shows that these QMEA schools provided a variety of VETiS courses and/or activities for their students. This suggests that these QMEA schools are meeting with success in offering VETiS courses and/or activities.

MARO offered a balance for students wishing to pursue an academic course of study or vocational pathways in both 2007 and 2008. Among the Authority Registered Subjects, there were courses in Early Childhood Practices, Hospitality, Industrial Skills (Engineering), Industrial Skills (Furnishing), Information Communication
Technologies and Community Recreation Studies. These concerns were all embedded in VET modules, enabling students to achieve a Certificate I or II (see Table 6.9).

Table 6.9
VETiS courses and/or activities offered by MARO

<table>
<thead>
<tr>
<th>Y</th>
<th>Core curriculum</th>
<th>Y</th>
<th>Extra curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td><strong>Senior:</strong> We offered a balance for students wishing to pursue an academic course of study or vocational pathway. <strong>ARS (Non-OP):</strong> English Communication, Pre Vocational Maths, Creative Art, Social and Community Studies, Early Childhood Practices*, Hospitality*, Industrial Skills (Engineering)<em>, Industrial Skills (Furnishing)</em>, Information Communication Technologies*, Community Recreation Studies*</td>
<td>0</td>
<td>*Get Set For Work GEMS (Getting Employment Made Simple) program *Australian Brick &amp; Bricklaying Course *Construction 'Blue' Card *Generic Induction Program *MARO Advanced Skills Training *Certificate One in Resource and Infrastructure Operations *Certificate Two in Workplace Practices *Certificate One in Automotive, Retail, Beauty Therapy through TAFE *Year 10 'Fast-track' program</td>
</tr>
<tr>
<td>7</td>
<td><em>Please Note: Subjects denoted by * have embedded VET modules, enabling students to achieve Certificate I or II.</em>*</td>
<td>7</td>
<td>*Get Set For Work GEMS (Getting Employment Made Simple) program *Australian Brick &amp; Bricklaying Course *Construction 'Blue' Card *Generic Induction Program *The MAST *Certificate One in Resource and Infrastructure Operations *Certificate Two in Workplace Practices *Certificate One in Automotive, Retail, Beauty Therapy through TAFE *Year 10 'Fast-track' program</td>
</tr>
<tr>
<td>8</td>
<td><strong>ARS (Non-OP):</strong> English Communication, Pre Vocational Maths, Creative Art, Social and Community Studies, Early Childhood Practices*, Hospitality*, Industrial Skills (Engineering)<em>, Industrial Skills (Furnishing)</em>, Information Communication Technologies*, Community Recreation Studies*</td>
<td>8</td>
<td><em>Please Note: Subjects denoted by * have embedded VET modules, enabling students to achieve Certificate I or II.</em>*</td>
</tr>
</tbody>
</table>

In the extra curriculum, MARO reported providing a series of extra-curricula activities for their Senior students in both 2007 and 2008. These included Get Set for Work GEMS, Australian Brick and Brick-laying Course, Construction ‘Blue’ Card, a Generic Induction Program, Advanced Skills Training, and a Year 10 ‘Fast-Track’ Program. Interestingly the following were also identified as extra-curricula offerings: Certificate I in Resource and Infrastructure Operation, a Certificate II in Workplace Practices and Certificates I in Automotive, Retail, Beauty Therapy through TAFE. These extra-curricula courses and programs provided Senior students with broader options and more opportunities for combining school and work.

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85 A Construction Induction or Blue Card Induction is legally required Australia Wide by all people performing construction work or wishing to enter construction sites unescorted. Now Blue Card is replaced with White Card.
BATER also provided a variety of VETiS courses and/or activities for their Senior students (see Table 6.10). This school explicitly identified itself as part of the QMEA.

Table 6.10
VETiS courses and/or activities offered by BATER

<table>
<thead>
<tr>
<th>Year</th>
<th>Core curriculum</th>
<th>Extra curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Work Education (Certificate II in Work Readiness), Senior Pathways (History, Geography, Economics), VET Certificates – Levels I, II &amp; III (These subjects have vocational education components.)</td>
<td>- As part of the Queensland Minerals and Energy Academy (QMEA) students competed in the Hands Skills Challenge and in the Career Expo for girls</td>
</tr>
<tr>
<td>8</td>
<td>Work Education (Certificate 2 in Work Readiness), Senior Pathways (History, Geography, Economics), VET Certificates – Levels I, II &amp; III (These subjects have vocational education components.)</td>
<td>- As part of the Queensland Minerals and Energy Academy (QMEA) students competed in the Hands Skills Challenge and in the Career Expo for girls</td>
</tr>
</tbody>
</table>


Similarly, VELA offered many VETiS courses and Certificates as part of its core curriculum (see Table 6.11).
Table 6.11
VETiS courses and/or activities offered by VELA

<table>
<thead>
<tr>
<th>Y</th>
<th>Core Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>In Years 11 and 12, students choose a program from 32 Queensland Study Authority (QSA) subjects and 15 QSA-Registered subjects – eight of these included vocational competencies. - The school has been issued with registration for 8 vocational training areas within which we are permitted to provide vocational programs. These areas include Furnishing; Engineering; Process Manufacturing; Hospitality; Business Services; Information Technology; General Education and Training; and Childcare. - The school has a vigorous Australian SBA program. - There is a growing emphasis in the area of vocational preparation, with students being signed up in the later stages of Year 10. - Most Year 11 students undertook a five-day work experience program and many senior students are taking programs where they are required to take up work placements on a structured basis. - On-going work experience is provided to students in the Special Education Unit.</td>
</tr>
<tr>
<td>8</td>
<td>In Years 11 and 12, students choose a program from 32 Queensland Study Authority (QSA) subjects and 15 Authority Registered subjects – eight of these included vocational competencies. - The school has been issued with registration for 8 vocational training areas within which we are permitted to provide vocational programs. These areas include Furnishing; Engineering; Process Manufacturing; Hospitality; Business Services; Information Technology; General Education and Training; and Childcare. - The school has a vigorous Australian School-Based Apprenticeship (ASBA) program - There is a growing emphasis in the area of vocational preparation, with students being signed up in the later stages of Year 10. - A number of students are also taking TAFE Certificate courses. - Most Year 11 students undertook a five-day work experience program and many senior students are taking programs where they are required to take up work placements on a structured basis. - On-going work experience is provided to students in the Special Education Unit.</td>
</tr>
</tbody>
</table>

VELA offered its students quite a number of VET related courses in the core curriculum in 2007 and 2008. In Years 11 and 12, students could choose a program from 47 QSA subjects and QSA-registered subjects, eight of which included vocational competencies. VELA was registered to provide vocational programs in eight vocational training areas, namely Furnishing, Engineering, Process Manufacturing, Hospitality, Business Services, Information Technology, General Education and Training, and Childcare. Reflecting its emphasis on vocational preparation, VELA also provided Australian School-based Apprenticeship program. Senior students could also undertake a five-day work experience program and work placements. Work experience is also provided for Senior students in the Special Education Unit. In 2008, TAFE Certificate courses were added to the core curriculum. These broad offerings were intended to meet the diverse needs of VELA’s Senior students.

ALAN also provided its Senior students with a variety of offerings in VETiS. These offerings were delivered via multiple organisations (see Table 6.12).
Table 6.12
VETiS courses and/or activities offered by ALAN

<table>
<thead>
<tr>
<th>Y</th>
<th>Core Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Vocational: English Communication; Pre-Vocational Mathematics; Recreation Studies; Creative Arts-Media; Creative Arts-Visual; Horticulture; Industrial Skills; Tourism</td>
</tr>
<tr>
<td>0</td>
<td>Nationally Recognised Cert Courses (offered at school): Business Studies; Workplace Practices; Children’s Services; Hospitality; Kitchen Operations; Automotive Studies</td>
</tr>
<tr>
<td>0</td>
<td>Offered through TAFE Partnerships: Animal Conservation; Applied Fashion Design; Beauty Retail; Beauty Therapy; Carpentry; Commercial Cookery; Construction; Electro technology (systems electrician); Engineering Mechanical; Engineering Production; Furnishing; Horticulture; Information Communication Technology; Multimedia; Plumbing; Retail Cosmetics; Retail Operations; Tourism</td>
</tr>
<tr>
<td>0</td>
<td>Offered through Southbank Institute of Technology: Diploma of Nursing; Diploma of Accounting; Diploma of Graphic Design; Diploma of Visual Arts</td>
</tr>
<tr>
<td>7</td>
<td>Vocational: English Communication; Pre-Vocational Mathematics; Recreation Studies; Creative Arts-Media; Creative Arts-Visual; Horticulture; Industrial Skills; Tourism</td>
</tr>
<tr>
<td>7</td>
<td>Nationally Recognised Cert Courses (offered at school): Business Studies; Workplace Practices; Children’s Services; Hospitality; Kitchen Operations; Automotive Studies</td>
</tr>
<tr>
<td>7</td>
<td>Offered through TAFE Partnerships: Animal Conservation; Applied Fashion Design; Beauty Retail; Beauty Therapy; Carpentry; Commercial Cookery; Construction; Electro technology (systems electrician); Engineering Mechanical; Engineering Production; Furnishing; Horticulture; Information communication Technology; Multimedia; Plumbing; Retail Cosmetics; Retail Operations; Tourism; Justice; Media; Photography; Hairdressing; Fitness; Music</td>
</tr>
<tr>
<td>8</td>
<td>Offered through Southbank Institute of Technology: Diploma of Nursing; Diploma of Accounting; Diploma of Fitness; Diploma of Graphic Design; Diploma of Visual Arts</td>
</tr>
</tbody>
</table>

In the core curriculum of both 2007 and 2008, ALAN provided its students with a series of VETiS courses, including English Communication; Pre-Vocational Mathematics; Recreation Studies; Creative Arts-Media; Creative Arts-Visual; Horticulture; Industrial Skills; and Tourism. At school, it offered Nationally Recognised Certificate Courses in Business Studies; Workplace Practices; Children’s Services; Hospitality; Kitchen Operations and Automotive Studies. There were seventeen VETiS courses which were offered through TAFE partnerships. In 2008, more courses were reported as being part of the core curriculum and as being offered through TAFE partnerships, namely, Justice; Media; Photography; Hairdressing; Fitness and Music. Some advanced VETiS courses were provided through the Southbank Institute of Technology, including the Diploma of Nursing; Diploma of Accounting; Diploma of Fitness; Diploma of Graphic Design and the Diploma of Visual Arts.

One of the aims of these diverse curricula offerings by QMEA schools is to make their Senior Secondary curriculum more educationally and vocationally inclusive. As elsewhere, this is being achieved by “reducing the distinctions between programs of
study that tended to separate socially privileged students from others, mainly through matriculation status” (Crump & Stanley, 2005, p. 3).

However, it remains possible that VETiS tends to be attractive to those “who are less academically inclined, and who are more inclined to continue with VET courses after school” (Anlezark, Karimel & Ong, 2006, p. 49). If the academic curriculum is meant to eliminate some students, extending their education and training through VETiS might be a reasonable counter to this process now that VET qualifications can gain graduates entry to high levels of education. Stanley (2007, p. 95) suggests that one common strategy of education systems attempting to address this problem has been to attempt to get more vocational learning into the curriculum offerings for students who are less attracted to and less capable of learning the more academic subjects.

Thus, vocational learning is made equally important and useful as the academic learning. What’s more, vocational subjects could provide students with a more practical approach to learning and the opportunity to develop workplace capabilities. Therefore, the variety in the core and extra-curricula offerings of QMEA schools provided their students with “opportunities to develop their emotional intelligence by developing the greatest range of competencies to deal with the complex unknown, to overcome setbacks and imagine their own personal paths” (Bardsley, 2007, p. 498).

A case in point is what a QMEA school in Southern Queensland provided for its Senior students:

The model that we’ve gone to is that we have three separate pathways, which are quite distinct. So you don’t move across the pathways. So you either do university entrance, which is called our OP. Or you do a trade-based course, which is EP. That stands for ‘Enterprise Pathways’, but that doesn’t matter. EP is just the name we call it. And then there’s a middle course called IP (Integrated program), where the boys do some trade subjects and some university subjects (Thomas, Principal, Aug 4, 2009).

So every student in this school could find a best pathway for himself, which may make the best of his intelligence and capability. VETiS courses in the QMEA
schools, which were offered either on-campus or off-campus mode depending on the specific situation, did not lock students out of further education:

Certainly [every school should be teaching work education, work readiness, and that there would be a national job ready certificate] is a high priority, but I guess the Queensland system allows for that to happen, that they can still do their five academic subjects and get a really good OP, go on and do your nursing, but there’s still that flexibility that they can do some other stuff (David, Deputy Principal, Aug 5, 2009).

School size also affects the provision of VETiS:

I guess for some of it the bigger co-ed schools, that they can resource a much wider curriculum offering on campus. Small schools like us, most of our VET is offered off campus (David, Deputy Principal, Aug 5, 2009).

Small schools may have advantages that larger schools do not:

A big co-ed school couldn’t do what we’re doing, because they would have people everywhere [and can’t control it]. We can control it. So they’ve got to do it on campus. And so having those resources are pretty critical for them. And then once you start attracting – and if it’s a bigger school, the physical resources obviously, you’ve got to have the human resources to actually deliver the courses (David, Deputy Principal, Aug 5, 2009).

School size can affect the flexibility and choice of means in delivering vocational offerings that help young people gain a sense of achievement and focus as they proceed through their compulsory education and on to a successful lifetime of learning, challenge and achievement. However, the provision of school vocational education and training in the QMEA schools still is influenced by an education view of the world rather than a strictly labour demand view of the world. It is also influenced by the ability of the school to deliver these VETiS programs. Asher (2005) notes that so much of the education and training of young adults now depends on the involvement and commitment of multiple agencies to make this a reality and successful.

To establish a vocationally oriented curriculum in QMEA schools, a new organisational approach has to be taken to reform Senior Learning, even though there
has been a growth of QMEA school-delivered VET courses and of the numbers of school students enrolled in TAFE-delivered courses, as is occurring elsewhere throughout Australia (Crump & Stanley, 2005). In the future the collective attributes of QMEA schools will have to be considered as “sources of influence on the outcomes of schooling for individual students” (Sadovnik, 2007, p. 135). The QMEA schools’ curricula offerings are a key to the students’ outcomes and destinations. Some QMEA schools did not report offering many VETiS courses and/or activities in either their core or extra curricula provisions. The question then is what academic courses and/or activities did these QMEA schools offer? This issue is investigated in the following section.

6.4 VETiS courses versus academic courses offered in school curricula

It is necessary and important to make a comparison between the reports of the academic and VETiS offerings of some QMEA schools in order to better understand fewer VETiS courses offerings (See Table 6.13 and Table 6.14). LONY and BAMA were selected for this analysis because they offered the least VETiS courses and/or activities in either core and/or extra curricula provisions.

<table>
<thead>
<tr>
<th>Curricula</th>
<th>Core</th>
<th>Extra</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>200</td>
<td>007</td>
<td>VETiS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School-Based Apprenticeships and Traineeships</td>
<td>2</td>
<td>Pathways (Values and Social Skilling Program)</td>
<td></td>
</tr>
<tr>
<td>Local TAFE studies</td>
<td>0</td>
<td>Careers Expo (QMEA)</td>
<td></td>
</tr>
<tr>
<td>Pathways (Values and Social Skilling Program)</td>
<td>7</td>
<td>Girls Focused Careers Curriculum Programs</td>
<td></td>
</tr>
<tr>
<td>Careers Expo (QMEA)</td>
<td></td>
<td>Catering for local events (Year 11/12 Hospitality students)</td>
<td></td>
</tr>
<tr>
<td>Girls Focused Careers Curriculum Programs</td>
<td></td>
<td>Music, Health and Physical Education and Japanese Teaching Specialists</td>
<td></td>
</tr>
<tr>
<td>Catering for local events (Year 11/12 Hospitality students)</td>
<td></td>
<td>Instrumental Music Program Years 4-12</td>
<td></td>
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<tr>
<td>P-12 Pathways Program</td>
<td></td>
<td>Guide Reading Program Years 1-12</td>
<td></td>
</tr>
<tr>
<td>Values Education promoted through our ‘P-12 Pathways Program’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-12 use of Secondary School Facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music, Health and Physical Education and Japanese Teaching Specialists</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrumental Music Program Years 4-12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guided Reading Program Years 1-12</td>
<td></td>
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</tr>
</tbody>
</table>

2 0 0 0 0 7

Table 6.13
Comparison of curriculum offerings in terms of VETiS vs academic (LONY)

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2 0 0 0 0 7
| 2008 | • Virtual Schooling Service and Brisbane School of Distance Education Qld  
| 2007 | • NAIDOC Week Celebrations  
|     | • Choir Performances  
|     | • Harmony Day  
| 2008 | • School-Based Apprenticeships and Traineeships  
|     | • Local TAFE studies  
| 2007 | • Pathways (Values and Social Skilling Program)  
|     | • Careers Expo (QMEA)  
|     | • Girls Focused Careers Curriculum Programs  
|     | • Catering for local events (Year 11/12 Hospitality students)  
| 2008 | • Multi-age Learning Centres P-12  
|     | • 2 x Computer Labs.  
|     | • Values Education promoted through our ‘P-12 Pathways Program’  
|     | • P-12 use of Secondary School Facilities  
|     | • Music, Health and Physical Education and Japanese Teaching Specialists  
|     | • Instrumental Music Program Years 4-12  
|     | • Guided Reading Program Years 1-12  
|     | • Virtual Schooling Service and Brisbane School of Distance Education Qld  
| 2007 | • Gala Parade;  
|     | • Student Leadership Program  
|     | • Annual Awards Night  
|     | • Annual Chaplaincy Dinner  
|     | • Art Council Performances  
|     | • Commonwealth Cup U/12 Rugby League and Arrive Alive Cup Rugby League – Mount Isa District  
|     | • ANZAC Day Ceremony (Town Parade and School Memorial Service)  
|     | • Mid-West and North-West Sports  
|     | • NAIDOC Week Celebrations  
|     | • Choir Performances  
|     | • Harmony Day  
| 2008 | • Values Education promoted through our ‘P-12 Pathways Program’  
| 2007 | • School-Based Apprenticeships and Traineeships  
|     | • Local TAFE studies  
| 2008 | • Pathways (Values and Social Skilling Program)  
|     | • Careers Expo (QMEA)  
|     | • Girls Focused Careers Curriculum Programs  
|     | • Catering for local events (Year 11/12 Hospitality students)  
| 2007 | • Multi-age Learning Centres P-12  
|     | • 2 x Computer Labs.  
|     | • Values Education promoted through our ‘P-12 Pathways Program’  
|     | • P-12 use of Secondary School Facilities  
|     | • Music, Health and Physical Education and Japanese Teaching Specialists  
|     | • Instrumental Music Program Years 4-12  
|     | • Guided Reading Program Years 1-12  
|     | • Virtual Schooling Service and Brisbane School of Distance Education Qld  
| 2008 | • Gala Parade;  
|     | • Student Leadership Program  
|     | • Annual Awards Night  
|     | • Annual Chaplaincy Dinner  
|     | • Art Council Performances  
|     | • Commonwealth Cup U/12 Rugby League and Arrive Alive Cup Rugby League – Mount Isa District  
|     | • ANZAC Day Ceremony (Town Parade and School Memorial Service)  
|     | • Mid-West and North-West Sports  
|     | • NAIDOC Week Celebrations  
|     | • Choir Performances  
|     | • Harmony Day  
| 2007 | • Gala Parade;  
|     | • Student Leadership Program  
|     | • Annual Awards Night  
|     | • Annual Chaplaincy Dinner  
|     | • Art Council Performances  
|     | • Commonwealth Cup U/12 Rugby League and Arrive Alive Cup Rugby League – Mount Isa District  
|     | • ANZAC Day Ceremony (Town Parade and School Memorial Service)  
|     | • Mid-West and North-West Sports  
|     | • NAIDOC Week Celebrations  
|     | • Choir Performances  
|     | • Harmony Day  
| 2008 | • Gala Parade;  
|     | • Student Leadership Program  
|     | • Annual Awards Night  
|     | • Annual Chaplaincy Dinner  
|     | • Art Council Performances  
|     | • Commonwealth Cup U/12 Rugby League and Arrive Alive Cup Rugby League – Mount Isa District  
|     | • ANZAC Day Ceremony (Town Parade and School Memorial Service)  
|     | • Mid-West and North-West Sports  
|     | • NAIDOC Week Celebrations  
|     | • Choir Performances  
|     | • Harmony Day  

LONY reported offering its Senior students the same VETiS related courses in its core curriculum in both 2007 and 2008, including School-based Apprenticeships and Traineeships, and Local TAFE studies. In its extra curricula, this QMEA school also reported offering the same VET related activities in these two years to its students, including Pathways, QMEA Career Expositions, and a Girls Focused Careers Curriculum Program. LONY offered a similar number of courses in its extra curricula offerings, including VETiS courses related to the minerals and energy sector. Publicly acknowledging that it is a ‘QMEA school’, it reported that its students closely engaged in QMEA curricula activities to provide better pathways for them. In terms of academic offerings, it can be seen that this school offered different courses but little in the way of variety, which might be a function of its small size. The extra curricula activities covered diverse aspects.

The situation is similar for BAMA, which reported limited and unspecified offerings in VETiS, and broader offerings of academic courses. The latter is a function of it being a much larger, urban school.
### Table 6.14
Comparison of curriculum offerings in terms of VETiS vs academic (BAMA)

<table>
<thead>
<tr>
<th>Year</th>
<th>Core Curricula</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>- Development Programme – Career preparation</td>
<td>VETiS</td>
</tr>
<tr>
<td>7</td>
<td>- Broad range of Authority, non-Authority and Certificate courses</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td><strong>BAMA State Secondary College has a strong and distinctive curriculum which offers individualised pathways for achievement in a range of areas:</strong></td>
<td>Academic</td>
</tr>
<tr>
<td>7</td>
<td>- Whole-of-School Literacy within the Curriculum program</td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>- Award winning B-TADS programme (BAMA Training and Development Squad)</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>- Wide variety of strong extracurricular sports teams</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>- Unique Year 10 Preparatory Year for Senior Subjects</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>- Middle School Curriculum Structure focused on three ‘big questions’:</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>1. How do I make sense of and communicate within the world? (Eng/LOTE/SE)</td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>2. How do I describe, analyse and shape the world around me? (Science/Maths/Health)</td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>3. Who am I and where am I going? (Technology and The Arts)</td>
<td></td>
</tr>
<tr>
<td>h</td>
<td>- Multi-Literacy Programme – for extra assistance with literacies</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>- Development Program – Career preparation</td>
<td>VETiS</td>
</tr>
<tr>
<td>8</td>
<td>- Access to School Based Traineeships and Apprenticeships</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>- Access to the school’s TAFE program</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td><strong>BAMA State Secondary College has a strong and distinctive curriculum which offers individualised pathways for achievement in a range of areas:</strong></td>
<td>Academic</td>
</tr>
<tr>
<td>s</td>
<td>- Whole-of-School Literacy within the curriculum program</td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>- Award winning B-TADS (BAMA Training and Development Squad)</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>- The Senior School curriculum is a broad range of Queensland Authority subjects (Category A,B,C, Authority and SAS) to suit student needs</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>- Multi-Literacy Program</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>- Special Education Program</td>
<td></td>
</tr>
</tbody>
</table>

In 2007 BAMA provided its Senior students with a range of Certificate courses and Career Preparation but reported no specific details. In 2008, with the exception of Career Preparation, BAMA offered as part of its core curriculum Access to School-based Apprenticeships and Traineeships and Access to TAFE programs. In the core curriculum, its academic offerings were varied, and included literacy and numeracy. However, no detailed information about these subjects was publicly reported.

The evidence from these two schools seem to indicate that they attach great importance to their academic curriculum and less so to vocational learning at least that is the public impression created by their Annual Reports about VETiS. The general description of VETiS gives the public little sense of what is happening in the schools. Their school curricula now face two ways: “towards the world of work and towards access to disciplinary knowledge” (Young, 2008, p. 174). Perhaps they are being educational in the sense of providing opportunities for young adults to acquire...
knowledge to which they may not have access in workplaces, and which might support their progress to higher education or further training.

Policy-makers claim that VETiS provides students with a more practical approach to learning through the opportunity to develop workplace capabilities, such as *Framework for Vocational Education in Schools* (2001). However, it is a major challenge for education systems and schools to incorporate vocational education into the curriculum without it being seen as less desirable than traditional academic subjects. In some schools, VETiS is taken “as ‘taster’ courses without any clear pathway for future development” (Stanley, 2007, p. 96). Involving in VETiS by developing and applying VETiS curriculum, the QMEA hopes to guide its schools in the process of learning. However, there is much debate over the relationships between VETiS, democracy and relevance as these are expressed in the curricula. The students themselves need opportunities “to develop capabilities to deal with their own futures for which democratic curricula are designed to guide that process” (Bardsley, 2007, p. 498). The provision of a relevant curriculum is seen as fundamental for enabling students to find their place in a rapidly changing society.

In attempts to develop a distinct vocational curriculum, there is a tendency to avoid the issue of how vocational knowledge is to be distinguished from academic knowledge, if at all, and whether the skills and knowledge that can be acquired during the course of work can be readily identified and assessed. The knowledge-based approach recognises the crucial role of science in a vocational curriculum, but “failed to consider how apprentices could be supported to recontextualise this newly acquired knowledge in the workplace” (Young, 2008, p. 143). Even so, this might not be the only way out of the school/work dilemma, especially for young adults for whom schooling proves to be a failure. Alternatives are being explored, such as the participation of these young adults in apprenticeships and traineeships. As O’Brien and others (cited in May, 2007, p. 388) argue “the secondary curriculum is based on the assumption that knowledge can be objectified, verified, and disseminated via compartmentalised disciplines”. This is not the way of workplace learning. Even so the curriculum constitutes the most essential element of a school’s organisational context for teaching activities and learning outcomes. However, since not all students are university bound, schools are playing a key role in exploring the design of the
curricula to meet the diverse needs of young adults bridging vocational/academic divide of schooling.

With respect to post-compulsory education, Stanley (2007, p. 93) reports that “approximately one-third of early school leavers listed expected failure and not being good at schoolwork as an important or very important reason for leaving”. This suggests that ‘schoolwork’ seems to be a key factor in judging the success or failure at both the students and education authorities. However, this creates a potential danger that ‘schoolwork’ is equated with academic performance and might be overvalued. Those ‘failed’ students are likely to be unwilling to remain in a program of ‘schoolwork’ in which they feel they cannot succeed. Those who are compelled to take it would not like to spend more time on ‘schoolwork’ they expect to fail at. So school/work programs needed to give students a choice to undertake school/work studies “they feel interested in and in which they feel they have some chance of succeeding” (Stanley, 2007, p. 95). This means that only when students had enough confidence in themselves in their school/work performance are they likely to stay longer in schools. Even so, there are also some QMEA schools that did not provide specific VETiS courses and/or activities in their school curricula. This issue is explored in the next section.

6.5 No specific presentation of VETiS courses and/or activities in school curricula

There were some QMEA schools that did not report any detailed courses and/or activities in their school curricula, no specific information about their VETiS offerings. NOA and MERA were the two cases (see Tables 6.15 and 6.16).

Table 6.15
General VETiS courses and/or activities offered in core curriculum by NOA

<table>
<thead>
<tr>
<th>Yr</th>
<th>Core Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 7</td>
<td>- We offer a full range of academic and Vocational Education and Training (VET) subjects for senior students.</td>
</tr>
<tr>
<td></td>
<td>- Additional VET subjects delivered from a range of RTOS</td>
</tr>
<tr>
<td></td>
<td>- School-based apprenticeship and traineeship program.</td>
</tr>
<tr>
<td></td>
<td>- We have strong relationships with business and industry and use that relationship to promote learning outside of the classroom.</td>
</tr>
</tbody>
</table>
- We offer a full range of academic and Vocational Education and Training (VET) subjects for senior students.
- Additional VET subjects delivered from a range of RTOs
- We work with businesses and industries to support a school based apprenticeship and traineeship program.
- We have strong relationships with business and industry and use that relationship to promote learning outside of the classroom

NOA reported offering the same range of VETiS subjects for their Senior students in both 2007 and 2008. Additional VETiS subjects were delivered through Registered Training Organisations (RTOs). The school-based apprenticeship and traineeship program was provided as part of its curriculum. NOA reported having a strong relationship with business and industry to promote student learning outside of the classroom.

Table 6.16
General VETiS courses and/or activities offered in core curriculum by MERA

<table>
<thead>
<tr>
<th>Y</th>
<th>Core Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>In the Senior Phase of Learning (Years 10 to 12) we offer as many possible combinations of Authority, Authority Registered, and Stand Alone Vocational Subjects as we can. We offer 6 “lines” of subjects for the students to select from. We also offer studies through Schools of Distance Education, the Virtual Schooling Service and Off-Site Vocational Learning. We call our Senior School Program “WISE – Workplace, Industry and Schools Enterprise” to denote our participation in schooling and future pathways.</td>
</tr>
<tr>
<td>8</td>
<td>In Year 10 a new curriculum program called ‘Windows and Doors’ gave the students an opportunity to develop the specific skills required for Year 11 and 12 subjects. Year 10 students complete their Senior Education Training Plan (SETP) in Term 3. In the Senior Phase of Learning (Years 11-12) we offer as many possible combinations of Authority, Authority Registered and Stand Alone Vocational Subjects as we can. We offer six (6) lines of subjects for the students to select from. We also offer studies through Schools of Distance Education, the Virtual Schooling Service and Off-Site Vocational Learning. We call our Senior School Program “WISE – Workplace, Industry and Schools Enterprise” to denote our participation in schooling and future pathways.</td>
</tr>
</tbody>
</table>

In 2007 MERA provided its Senior students with a range of VET related courses, including Authority and, Authority Registered and Stand Alone Vocational Subjects. Studies were also offered through distance education, virtual schooling service and off-site vocational learning. However, MERA did not report the details of these subjects in its School Annual Report (2007). In addition to the courses offered in 2007, MERA provided a ‘windows and doors’ curriculum program to Year 10 students, giving them an opportunity to develop specific skills required for the following two years.
The evidence analysed above indicates that the curriculum is central to these QMEA schools. However, debates about what the VETiS programs entailed were of marginal interest or at best treated superficially in their reports. This may point to a dilemma about what is to be done by schools if they can not meet students’ needs for ‘good jobs’. No doubt this will create further demands for the education system to make further reforms. Predictions about future workforce demands remain, as always, too broad to provide clear guidance for school curricula.

Where secondary schools compartmentalise curricula offerings, schoolwork and school/work organisational change continues. The hermetic organisation of VETiS offerings as separate from the curriculum of schoolwork was raised by interviewees:

> What I did want to raise in this interview was around the National Curriculum, and the place of VET in the National Curriculum with a view that it’s a good pathway for university just as much as it is a good pathway for continuing your career, from ‘go right’ through to whether you go to uni or not. It would be very sad if the Federal Government didn’t really recognise the importance of VET in the school environment, to be able to develop the curriculum and to keep the curriculum that we are developing in these contexts, in its place (Maggie, Regional Partnership Manager, Aug 4, 2009).

Debating the place of VETiS in the National Curriculum does seem strange given the Federal Government’s role in driving both agendas for over two decades. The Queensland Certificate of Education has given enhanced credibility to VETiS as a pathway to higher education and training, providing an illustration of what is possible nationally.

Part of the deal is to give credibility to those VET courses. There was a stage where the VET courses were for the dummies, they were the ‘vegie’ courses, and that’s what the Australians call – as in ‘vegetable courses’. You don’t need much ‘brain matter’ to do them. But we have gone out of our way to say that these are – we have tried to structure ways to give each of these courses credibility, so that every student, no matter what course he does, can get a Queensland Certificate of Education. And each of them we make certain that we publish the successes of the boys at whatever level they do (Thomas, Principal, Aug 4, 2009).
There is a concern that the National Curriculum will become a new mechanism for dividing academic and vocational education, for separating schoolwork from school/work.

The National Curriculum doesn’t have a word about VET at the moment (Mary, VET Consultant, Aug 4, 2009).

The National Curriculum will only be relevant for those schools who are pure academic and those schools that are going to only offer National Curriculum. Then there will be other high schools that can’t reach the National Curriculum benchmark, so they will offer the State Curriculum (Sophie, VET Coordinator, Aug 4, 2009).

Having engaged the challenge to raise the status of VETiS in QMEA school curricula in response to Federal Government policy (2006), National Curriculum now appears to present new challenge for VETiS. In the following section, a summary is presented with regards to VETiS offerings in the fifteen QMEA school curricula.

6.6 VETiS offerings in the curricula of fifteen QMEA schools

VETiS courses, activities or programs might be considered as a ‘bridge’ between the schoolwork of Senior Secondary schooling and the changing labour market. Organising VETiS courses as part of the school curricula is in part due to the fact that “the conventional curriculum was successful neither in promoting high culture nor in preparing the new generation for the world of industry” (Kliebard, 1999, p. 5). Multiple offerings of VETiS in the school curricula are meant to provide flexible options and more opportunities for all young adults (see Table 6.17).

<table>
<thead>
<tr>
<th>VETiS category</th>
<th>Core curriculum</th>
<th>Extra curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>VETiS subject</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>VETiS program</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>SAT</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Certificate</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Work experience</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 6.17 categorises VETiS courses, activities and programs offered and the number of QMEA schools providing them as core and/or extra curricula offerings in 2007 and 2008. While some QMEA schools only offered VETiS in their extra-curricula offerings, but all fifteen QMEA schools offered VETiS in their core curricula. However, some QMEA schools did not provide a public report that detailed their VETiS courses, activities or programs in their curricula. It seems that VETiS subjects and SATs were the most common offerings in QMEA school curricula in 2007. However, in 2008, there was a slight increase in the reporting of Certificate offerings and partnerships. Of the fifteen QMEA schools, four schools reported offering QMEA related activities, programs, or claimed publically they were QMEA schools in both 2007 and 2008.

### 6.7 Schooling and QMEA school curricula

Following the first level of analysis of QMEA school curricula presented in the last sections, this section provides a theoretical analysis of the key themes identified with respect to the core and extra-curricula offerings in terms of VETiS.

#### 6.7.1 Schooling – the organisation of knowledge in Senior Learning

This section provides an analysis of the procedures and possible outcomes of young adults completing and after Senior Learning, based on Hamilton’s (1989), Bernstein’s (1977) and Kliebard’s (1999) key concepts.

With its emphasis on academic subjects the Senior Secondary school curriculum was meeting the needs of about one third of young adults. The needs of two-third students were somewhat neglected in the curriculum. School students were roughly divided into three classes: “the abstract-minded and imaginative children, the concrete or
hand-minded children, and the great intermediate class” (Kliebard, 1999, p. 32). In the secondary school curriculum, the hand-minded were neglected, if not eliminated by the prevailing system of schooling. Integrating the ‘hand’ and ‘mind’ in curriculum is expected to benefit all students, especially early school leavers, improving their transition from school to work or further education and training for those who gain an Overall Position (OP) or a VET Certificate as part of their Queensland Certificate of Education (QCE). Whether this would address the needs of all three categories of students is an open question, including those Not Studying and/or Not Working (NSNW) (see Figure 6.1).

![Senior Learning process and possible pathways](image-url)
Figure 6.1 maps the possible process of completing Senior Learning and potential pathways. In the QMEA school curricula analysed in the previous sections, two kinds of offerings were evident, academic courses, activities or programs and VETiS courses or activities. But they were not totally separate. They were integrated at the point of Queensland Certificate Education (QCE), which certifies multiple options that are possible for young adults to choose from academic and/or VETiS courses in order to graduate from high school even though the process might be more complicated than this. Historically, however, they were totally separate, with a bifurcated curriculum being the prevailing organisational mode. The consequence of this curriculum organisation was that “a wall [was] erected between academic and vocational studies, between the theoretical and the practical, between thinking and doing” (Kliebard, 1999, p. 233). This meant because many vocational students were denied possible access to intellectual resources, while students on the academic side of the curriculum were denied the opportunity to experience the integral connection between thought and action. The integration of the two could meet the needs of both academic and vocational students. The view now is that twenty-first century schools can organise themselves or be organised via mechanisms such as the QMEA, to transmit integrated curriculum, opening up curriculum selection options for students. The more ‘able’ a student is considered, the more likely he/she is to acquire desirable variations within and between these (Bernstein, 1977).

This integrated curriculum is expected to inspire respect for VETiS and prepare young adults to make their way successfully in the new industrial world. As in the past, VETiS is regarded “as a vehicle for moral regeneration, as pedagogical reform, and as preparation for the workplace in the new industrial society” (Kliebard, 1999, p. 8). It is not against cultural education, but a part of students’ general education. VETiS is not a rival to academic education but a complement to it, and promises that students can have a stronger taste for study and a greater zeal for transition from school to work and/or further education. Young adults’ idleness and ignorance, which are considered vices by some, can be corrected through VETiS (Kliebard, 1999).

Reorganising the curriculum by integrating academic and VETiS courses was central to the Queensland Government vision:
Our vision for the Smart State is to create a State of prosperity and social justice with a commitment to equality of opportunity. Education and training are at the heart of the Smart State vision and that means providing the very best learning opportunities possible for every young Queenslander regardless of their economic and social circumstances (White Paper-Queensland Government, cited in Harreveld & Singh, 2007, p. 1).

It was in 20th century that Senior Secondary schooling took on a new significance. It was seen as important because it was able to “transmit particular occupational skills, to create a morally-trained labour force, or to mediate access to the labour market” (Hamilton, 1989, p. 22). A major change to Senior Secondary schooling at that time was the switch from ‘moral’ education to ‘scholastic’ educational purposes. The school curriculum was the major organisational vehicle which responded, and gave expression to this change. This entailed the transformation of “the pedagogic ladder” where the students were allowed to “move forward or backward” into “the pedagogic tree” where students were allowed to “branch out” and do other work (Hamilton, 1989, p. 134). The pedagogic tree has borne the rich fruit of pathways. This means that students could do academic work on the one hand, and on the other do some preparatory work for the future, such as skills training. The claim is that this organisational change in the curriculum provides students with more options while in schools and hence better transitions to future education, work and training.

Organisational changes in the curriculum depend to some extent on other organisational factors affecting Senior Secondary education. For example, whether or not Senior Secondary schooling is compulsory and if so, to what age? Whether or not comprehensive secondary schools need to organise differentiated curricula for academic and vocational studies? The answers to these organisational questions affect the integration or segregation of VETiS courses and students in the schools and its curricula.

Historically the introduction of VETiS into Senior Secondary schools had the effect of differentiating the curriculum along the lines of probable destinations, creating differences between those predestined for university versus direct entry to the labour market. This was contrary to the view that VETiS is “a subject worthy of every
young [adult’s] study” (Kliebard, 1999, p. 75). Even so the curriculum was organised to provide the academic courses for those who believed themselves to be university bound, while the VETiS courses were more likely to be taken by those who were presumed to enter the job market directly from the high school rather than undertake further education or training. This complied with the deterministic, closed idea that a bifurcated curriculum was necessary to “train the ‘goose’ to waddle and teach the ‘eagle’ to soar” (Kliebard, 1999, p. 89). Despite this, some QMEA schools do not provide adequate vocational education and training for skilled occupations, a problem that continues even today. Thus, it is time to create flexible means to deliver knowledge through school curricula.

6.7.2 Flexible means for knowledge delivery in QMEA school curricula

It might be assumed that students can follow the QMEA school curriculum which is organised to bring young adults from different social backgrounds to participate profitably in both academic and VETiS programs (See Figure 6.2).

![Diagram of knowledge delivery in QMEA school curricula]

Figure 6.2
Means of knowledge delivery in QMEA school curricula
Figure 6.2 maps the flexible means for delivering both academic and VETiS knowledge in the QMEA school curricula. Academic knowledge is mainly delivered on campus, either in the classroom or outside but within the school. However, VETiS knowledge is organised to be delivered either on-campus or off-campus, depending on the providers which need not be the school. Due to the varying size of the schools affecting their capacity to offer VETiS courses, most schools chose to partner with different agencies, commonly industry and TAFE. This is because the number of industrial and clerical occupations in a complex industrial society is enormous, compared with “the few occupations that schools can reasonably be expected to incorporate into their curriculum” (Kliebard, 1999, p. 218). Based on this mode of organising knowledge, young adults at QMEA schools can choose different courses and/or activities while at school but need not learn or acquire this knowledge at school. This could lead to increased satisfaction among young adults and improve as much as redefine the idea of ‘school retention’ rates. If all this knowledge was to be delivered in classroom, there is “a danger that class teaching would ‘sink’ the individual in the group” even though it could economise time and labour, a key reason for the valuing of the academic curriculum (Hamilton, 1989, p. 113).

If judged solely in terms of economic value, the idea is that the QMEA schools would be expected to ensure that all their students are “fitted for useful industries before the age of leaving school for business” (Kliebard, 1999, p. 10). Driven by this rationale, obstacles to organising the incorporation of VETiS into the curriculum in QMEA schools are expected to weaken. However, VETiS was established in QMEA schools’ curricula not as an alternative to general education but as an enhancement to it. VETiS expanded the chance “to make the curriculum function much more directly and more visibly” (Kliebard, 1999, p. 27).

When VETiS was delivered off-campus through partnering with industries or TAFE, the curriculum was reorganised so that students could leave school for work or training during the week “without detriment to their general standing and scholarship” (Kliebard, 1999, p. 64). Once the curriculum and its timetable were organised, and public reaction was favourable, then the QMEA schools felt obliged to incorporate that change in their Annual Reports.
With attention to resourcing issues and familiarity with the needs of young adults, it is likely that VETiS could become fully integrated within QMEA schools. In the meantime, it might continue to sit somewhat uneasily as both a core and extra curriculum area, with academic/vocational imperatives further debate.

It is difficult to judge the effectiveness of the QMEA schools’ curricula. In part this is because the goals of schooling are “ambiguous and often conflicting” (Sadovnik, 2007, p. 139), so it is hard to determine what standards to use for judging it. Further, the participants in the QMEA schools change over time, adding further uncertainty to the complexities of outcomes and the ambiguities of goals. Moreover, the QMEA schools have to change the organisation of the curricula and the allocation of time for implementing it in order to respond to new Government curriculum imperatives.

6.8 Conclusion

This Chapter analysed the evidence drawn from the 2007-2008 Annual Reports of QMEA schools. The research findings indicate that not all QMEA schools reported offering VETiS courses, activities or programs in their core curriculum. Some QMEA schools offered much variety in VETiS, while others provided seemingly few VETiS related courses and/or activities. Another important finding was that most QMEA schools did not offer VETiS at school but choose to partner with the industry or TAFE to provide VET for their students. Some QMEA schools offered the same VETiS programs for the two years under study which suggests that these offerings might have established their organisational feasibility and are popular among young adults. Other QMEA schools made some changes in their VETiS offerings, adding or reducing some courses or programs. This might mean that QMEA schools were making efforts to adjust in the offering to find the most suitable ones for their students and organisational imperative. Of the fifteen QMEA schools, only 4 schools in each year explicitly reported offering QMEA related activities or programs, or publically claimed they were part of the QMEA. The integration of most schools into the QMEA was not very strong in the School Annual Reports analysed. This indicates that the ‘hub-and-school model’ does not have a direct impact on the curriculum design of some QMEA schools.
The research findings also indicate that the historical issues that have bedevilled vocational education are still present, with the National Curriculum likely to reinforce the academic and vocational divide. Importantly, some QMEA schools are leading the way to attaching importance to VETiS by providing a huge number and variety of VETiS offerings to their students. However, this only solves part of the problem. Another organisational problem for the QMEA and its schools is professional learning of their teachers who implement those VETiS courses, activities and programs. The next Chapter investigates this issue by analysing the evidence from the QMEA schools’ Annual Reports.
CHAPTER SEVEN
ORGANISATIONAL CHANGES IN TEACHER PROFESSIONAL LEARNING

7.0 Introduction

Critical discourse analysis is a common procedure in educational research; I wanted to try something different. The data analysis presented in this evidentiary Chapter is presented in two modes, a First Cycle analysis (evidentiary-commentary analysis) and then a Second Cycle (theoretical analysis). Following Saldaña (2009, p. 45) during the First Cycle methods the data were divided into subcategories and an evidentiary profile developed in relation to the themes that come out. The subcategories were elucidated using an inductive approach. With regard to Second Cycle of data analysis, the focus was on “abstracting, conceptualising, and theory building” (Saldaña, 2009, p. 45). Given the research questions posed, the data to analysed, and the need for new approaches to data analysis in the field of education research I took up these analytical procedures as they matched these needs.

In the last Chapter, curricula offerings reported in the 2007-2008 Annual Reports by the QMEA schools were analysed. It is school teachers who implement these school curricula. Whether teachers can practise these curricula as desired or required depends on teachers’ capabilities, pedagogy and knowledge which are possible to be improved via professional learning. The ‘hub-and-spoke’ organisational mode is demonstrated in this Chapter in terms of the initiatives and investment of the QMEA schools and their teachers’ involvement in professional learning. The aim of investigating teacher professional learning is that it is a key mechanism for organising the teaching in QMEA schools where it is regarded as a necessary job requirement. Teachers who engage in professional learning often find themselves in empowering cycle: “the more they learn, the more they open up to new possibilities and the more they seek to learn more” (Lieberman cited in Sadovnik, 2007, p. 147). Although not all teachers follow this path, those who do benefit from improvements in their teaching. When teacher professional learning is organised within and across QMEA schools, it is expected to help establish many features of a professional
community, such as collaboration, shared values, and reflective discussions about teaching and learning. The benefits of teacher professional learning are that it contributes “to teachers’ knowledge, skills, and dispositions” (Sadovnik, 2007, p. 147). Teachers’ knowledge makes a difference to the implementation and the quality of curricula. Teachers’ knowledge can be categorised into three types:

- pedagogical knowledge – in which teachers know general strategies of teaching;
- content knowledge – what teachers know about their subject matters;
- pedagogical content knowledge – the knowledge of how to teach a particular subject matter in a way that fosters students’ understanding (Sadovnik, 2007, p. 144).

These three types of knowledge, which are indispensable in teaching and have an influence on teaching outcomes, provide an analytical focus for this Chapter.

In the changing times in education systems around the world, many societies are engaging in serious and promising educational reforms. One of the key elements in most of these reforms is teacher professional learning. Teachers are “not only one of the ‘variables’ that need to be changed in order to improve their education systems, but they are also the most significant change agents in these reforms” (Villegas-Reimers, 2003, p. 7). This dual role of teachers in educational reforms – being both subjects and objects of change – makes the issue of teacher professional learning a growing and challenging area. This has received attention during the past few years in the QMEA schools.

Teacher professional learning is the professional growth a teacher achieves as a result of gaining increased experience and examining his or her teaching systematically. Professional learning includes formal experiences (such as attending workshops and professional meetings, mentoring, and engaging in research) and informal experiences, including “regular opportunities and experiences planned systematically to promote growth and development in the profession” (Villegas-Reimers, 2003, p, 12).

In the following sections, this Chapter investigates VETiS related teacher professional learning provided by nine QMEA schools for the reasons explained
below. For the teacher professional learning offered by the rest of the QMEA schools, see Appendix 8. Then this Chapter analyses teachers’ involvement in the professional learning offered by QMEA schools (n=16). Finally, this Chapter focuses on QMEA schools’ investment in teacher professional learning. (n=16)

7.1 Organisational changes in teacher professional learning offered by QMEA schools

Of the eighteen QMEA schools, two did not provide analysable information in their Annual Reports with regards to their teachers’ professional learning. Of the sixteen schools, more than half of them (n=9) offered professional learning initiatives that seemed to relate to VETiS, while the others (n=7) were ambiguous in reporting whether these were VETiS initiatives or not. Therefore, the professional learning initiatives offered by the nine QMEA schools were selected for detailed analysis (see Tables 7.1-7.9) but teachers’ involvement in professional learning and the QMEA schools’ (n=16) investment in it were analysed separately.

Table 7.1
Professional learning initiatives offered by LONY

<table>
<thead>
<tr>
<th>Year</th>
<th>Professional learning initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Managing Student Behaviour Through Microskill Training; Teacher Classroom profiling; Literacy Across the Curriculum; Senior Schooling Initiatives; Go Maths In-service; District Maths Program PD; Better Behaviour, Better Learners; <strong>Certificate 4 Accreditation</strong>; Spelling Program; Curriculum Leadership Program; QCAR District PD; Prep follow-up PD; SMS PD; Timechart PD; <strong>VET qualifications</strong> for year 11 and 12 teacher.</td>
</tr>
<tr>
<td>2008</td>
<td>Intermediate to Advance <strong>Welding</strong>; Curriculum Leaders; Key Teacher Training; Year 2 Net Moderation; Prep Reflection; Smart Moves Primary Classrooms; Early Years Curriculum Guidelines Training; Thinking and Learning Outside the Square; Student at Risk Networking Opportunities; QCAR Students with Disabilities Workshop; North West Anaphylaxis Allergy Workshop; Rehabilitation Return to Work Coordination; Reading In-service; QSA Developing a P-12 Framework Workshop; Dare to Lead Workshop</td>
</tr>
</tbody>
</table>

Table 7.1 shows that in 2007, LONY provided its teachers with some VETiS initiatives including **Certificate 4 Accreditation** and **VET qualifications** for Years 11-12 teachers. It was one of the few among the 16 QMEA schools which reported offering VET qualifications for its teachers as professional learning initiatives. It also offered a range of workshops and activities concerning skills and pedagogy training.

In 2008, the VETiS initiatives involved Intermediate to Advance **Welding** and **Engineering Computer-aided Design Software Training**, in addition to different
workshops about diverse skills and capacity enhancement. With the teachers equipped with VET Certificates and qualifications in 2007, this school increased the VETiS offerings in the specific fields such as welding and software, providing its teachers with technological skills for engaging in VETiS.

Table 7.2
Professional learning initiatives offered by BATER

<table>
<thead>
<tr>
<th>Year</th>
<th>Professional learning initiatives</th>
</tr>
</thead>
</table>
| 2007 | - Middle Phase Learning Strategy including the Middling Schooling Cluster SAIL Project  
- Rural & Remote Centre of Excellence PD Day  
- Preparation and ongoing implementation of QCAR and Essential Learnings  
- Cross Cultural Awareness Training – Module 2 completed  
- Literacy development through Support-a-Reader and Support-a-Writer  
- Senior Phase of Learning – Emphasis on SET Plans, QCE and other QSA subject based training  
- TAA04 Certificate 4 in Training and Assessment for VET teachers |
| 2008 | - Literacy across the curriculum  
- Certificate IV Training & Assessing  
- Middle & Senior Phase of Learning – QSA  
- Specific curriculum development |

Table 7.2 reveals that in 2007, BATER provided its teachers with professional learning with regards to Middle Phase Learning Strategy and Senior Phase of Learning in addition to Cross Cultural Awareness Training. Literacy development was another important initiative. The only VETiS offering was the Certificate 4 in Training and Assessment for VET teachers, which suggests that this school had its own VET teachers. This was not reported as common among most QMEA schools. In 2008, with the majority of the initiatives offered in 2007 continuing, ICT Pedagogical License and ICT Certificate were added to the initiatives which provided VET teachers with more skills and technological knowledge. BATER was another of the QMEA schools which provided VETiS qualifications for its teachers.

LONY and BATER were the only two QMEA schools that explicitly and clearly reported they had their own VET teachers in schools. This could indicate that the rapid growth of VETiS has led to a VET teacher supply problem for schools. VETiS was traditionally reliant on “committed individuals who have worked long hours to

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86 In Australia, there is no requirement for registration to teach in the Vocational Education and Training system. The minimum requirement for teaching and assessment is a Certificate IV in Training and Assessment (CIV TAA) (Robertson, 2008, p. 1).
establish the programs in their schools” (Smith, 2004, p. 571). This is because VET teachers need to be specialists in a number of senses. First, they are specialists in areas of knowledge related to specific occupational fields. It follows that they need to be graduates in a technological or other professional field and have gained experience in using that knowledge in a number of specific workplaces. This means that prior to becoming a VET teacher, they had some industrial or commercial experiences linked to their prior studies. It is likely that the recruitment of VET teachers has to compete with industry where there is a shortage of skilled labour. Now, they are specialist vocational teachers in particular areas of the curriculum. That is to say that they now need to be familiar not only with the content and philosophy of the curricula and how it may need to change, but also with its implications for teaching, learning and assessment in their specialist field (Young, 2008). Due to these ‘specialist’ requirements, VET teacher supply problem in schools is difficult to solve. One possible solution to this problem is to train teachers via a partnership between university education faculties and TAFE. The university could specialise in the broad professional educational issues involved in becoming a teacher, and TAFE could be responsible for developing the teachers’ specialist vocational pedagogy (Young, 2008). The major problem with VET teachers in schools was that high schools rarely have the resources and expertise in vocational pedagogy to take on the role prescribed for them. As a result, VETiS students do not have the opportunity to develop their vocational knowledge and skills with the assistance of their school teachers.

In most QMEA schools, very little attention was given to developing the specialist vocational knowledge and skills of future potential VETiS teachers. VETiS teachers have to rely on “a combination of generic pedagogic knowledge acquired in the university and the ad hoc vocationally specific skills that they pick up during their teaching practice in schools” (Young, 2008, pp. 178-9).

There are other drawbacks in supplying VETiS teachers to QMEA schools. First, with a new or revised curriculum, few school VET teachers are likely to have the appropriate expertise and, if so, only in some vocational fields. Second, those training to become VET teachers may continue to be cut off from the rest of the education community, and have few opportunities for progression to higher level of
professional studies. Therefore, systematic attention needs to be given to the professional learning of VETiS teachers. This requires a change of attitudes towards VETiS status in schools as well as increasing funds. It is imperative now to have “fast-track training of teachers in VET subjects to accommodate both the rapid growth in VET and the turnover of burn-out VET teachers” (Smith, 2004, p. 571).

Table 7.3
Professional learning initiatives offered by NOA

<table>
<thead>
<tr>
<th>Y</th>
<th>Professional learning initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>- Enhancement of curriculum expertise in all teaching areas</td>
</tr>
<tr>
<td>0</td>
<td>- Senior curriculum development for academic and vocational subjects</td>
</tr>
<tr>
<td>0</td>
<td>- The teaching of English and Mathematics</td>
</tr>
<tr>
<td>7</td>
<td>- Preparation for the implementation of the QCAR framework</td>
</tr>
<tr>
<td>7</td>
<td>- Co-operative preparation of curriculum materials for Years 8 and 9</td>
</tr>
<tr>
<td>2</td>
<td>- Leadership</td>
</tr>
<tr>
<td>0</td>
<td>Phases of learning - Middle and Senior conferences,</td>
</tr>
<tr>
<td>0</td>
<td>Curriculum - Implementation of QCAR framework, Individual curriculum training,</td>
</tr>
<tr>
<td>8</td>
<td>Assessment and Reporting,</td>
</tr>
<tr>
<td>8</td>
<td>School Priorities - Behaviour management programs</td>
</tr>
</tbody>
</table>

Table 7.3 shows that in 2007, NOA offered its teachers Senior Curriculum Development for academic and vocational subjects. This indicates that NOA provided vocational subjects for its students. It also offered other initiatives such as Leadership and Enhancement of Curriculum Expertise in all teaching areas, while not explicitly specified this might include vocational education and training. In 2008, the teachers of NOA were engaged in Middle and Senior conferences and VET networks in addition to Curriculum and School Priorities. The VET networks were for school VET teachers with ‘specialist’ requirements and the enhancement of VETiS subjects. Among all the QMEA schools, this was the only school that reported offering VET networks for its teachers.

Table 7.4
Professional learning initiatives offered by BAMA

<table>
<thead>
<tr>
<th>Y</th>
<th>Professional learning initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>- Expansion of college-wide policy on inclusive practice</td>
</tr>
<tr>
<td>7</td>
<td>- Literacy Framework</td>
</tr>
<tr>
<td>7</td>
<td>- Strengthening Teacher Leadership</td>
</tr>
<tr>
<td>7</td>
<td>- Cross-Cultural Training</td>
</tr>
<tr>
<td>7</td>
<td>- Development of strong Beginning Teachers’ Program (HATS)</td>
</tr>
<tr>
<td>0</td>
<td>First-Aid Training, Literacy/Numeracy, VET, QCAR, Disability Services, Social Emotional Learning, Code of Conduct, Middle Phase of Learning, Senior Phase of Learning, Indigenous Education.</td>
</tr>
</tbody>
</table>
Table 7.4 demonstrates that in 2007 BAMA provided its teachers with no obvious VETiS related initiatives but literacy, leadership and cross-cultural training might be relevant. It also offered development of strong beginning teachers' program to help new teachers just starting their career. In 2008, the initiatives reported as being offered were quite different from those in 2007, such as Literacy and Numeracy, VET and Middle Phase and Senior Phase of Learning. This might be interpreted as highlighting the different initiatives but keeping the same ones. In terms of VETiS, the report did not provide any specific information as to whether it was VET subjects or VET Certificate or qualification.

Table 7.5
Professional learning initiatives offered by PINI

<table>
<thead>
<tr>
<th>Y</th>
<th>Professional learning initiatives</th>
</tr>
</thead>
</table>
| 07 | • Leadership Development including Curriculum Leaders Program  
    • Curriculum Development including QSA courses in Manual Arts, Art, Hospitality, Maths, Physics and Chemistry; Middle Years in-services  
    • Literacy – District Literacy Team, Building Blocks to Literacy, THRASS  
    • Staff Welfare, Conflict Resolution, Probationary Teacher Programs |
| 08 | • Literacy and Numeracy development – THRASS, Literacy Workshops  
    • Staff Leadership Development  
    • Understanding and Embedding Indigenous Perspectives in the Classroom  
    • Curriculum Development in specialist areas  
    • Improving use of ICTs in the classroom  
    • Other: SET Planning Processes; Thrive Not Just Survive; First Aid |

Table 7.5 indicates that teachers of PINI had the opportunity to engage in such school initiatives as Leadership Development, Curriculum Development, Literacy and some other programs in 2007. Professional learning for curriculum development included VETiS related courses in the Queensland Studies Authority (QSA) courses, such as Manual Arts and Hospitality. However, in 2008, professional development initiatives centred on specialist areas. In addition to Literacy, Numeracy and ICT Certificate were provided. While not made explicit it is possible that this school kept its 2007 offerings and added new initiatives in 2008.

Table 7.6
Professional learning initiatives offered by NANA

<table>
<thead>
<tr>
<th>Y</th>
<th>Professional learning initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>First aid Certificates; ICT Certificates; Young women’s leadership and mentoring; Drama conference; P- 10 Maths Syllabus; Literacy &amp; Numeracy conference; Web design; Professional Standards for Teachers; QSA Workshops; Interactive whiteboards; Whole school</td>
</tr>
</tbody>
</table>

219
Table 7.6 shows that the potential VETiS related initiative offered by NANA for its teachers in 2007 was *ICT Certificates*. It provided a range of conferences, workshops, programs and training to build its teachers’ capacity in teaching. Besides *ICT Certificates*, VETiS related initiatives in 2008 included a *Manual Arts Safety* workshop and a *Hospitality* workshop, with *Network meetings* and *Future of Farming* as the possible VETiS initiatives. NANA kept its distinctive features of offering diverse conferences, workshops and training, including its beginning teachers conference. It provided many opportunities for its teachers to be engaged in professional learning.

**Table 7.7**

Professional learning initiatives offered by VELA

<table>
<thead>
<tr>
<th>Y</th>
<th>Professional learning initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>• Beginning Teacher program</td>
</tr>
<tr>
<td></td>
<td>• Pre-Service Teacher program - Staff PD Forums</td>
</tr>
<tr>
<td>7</td>
<td>• Systemic Programs – Literacy, Behaviour Management, Code of Behaviour and Student Protection</td>
</tr>
<tr>
<td></td>
<td>• School Initiatives – LTLTR, Leadership Development (for promotional aspirants), Leadership</td>
</tr>
<tr>
<td></td>
<td>program for HODs, GO, HOSE, DPs and Principal, Leadership program for teachers,</td>
</tr>
<tr>
<td></td>
<td>Crossing Cultures, ICTs in the classroom</td>
</tr>
<tr>
<td></td>
<td>• Individual Teacher Requirements</td>
</tr>
<tr>
<td></td>
<td>• Curriculum-Specific Requirements</td>
</tr>
<tr>
<td></td>
<td>• First Aid Course</td>
</tr>
<tr>
<td></td>
<td>• Faculty Requirements - QCAR Reporting Requirements</td>
</tr>
</tbody>
</table>

| 0  | • Beginning Teacher program                                                                     |
| 8  | • Pre-Service Teacher program: Staff PD Forums                                                 |
|    | • Systemic Programs: Literacy; Behaviour Management; Code of Behaviour and Student Protection   |
|    | • School Initiatives – *FCT Pedagogical Licence/Certificates*; Literacy; Leadership Development  |
|    |     (for promotional aspirants); Leadership program for teachers; Crossing Cultures; ICTs in   |
|    |     the Classroom                                                                              |
|    | • Individual Teacher Requirements                                                              |
|    | • Curriculum-Specific Requirements                                                              |
|    | • First Aid Course                                                                               |
|    | • Faculty Requirements - QCAR Reporting Requirements; NAPLAN Testing                           |

Table 7.7 reveals that in 2007 and 2008, the only VETiS related initiative offered by VELA for its teachers was *FCT Pedagogical Licence/Certificates*. In 2007, VELA offered a *Leadership* program for HODs, GO, HOSE, DPs and the Principal, and
Learning to Learn through Reading (LTLTR). In 2008, it offered FCT Pedagogical Licence/Certificates and Literacy. This might mean that this school turned its attention somewhat from academic to VETiS. The common initiatives offered during these two years were Beginning Teacher Program, Systemic Programs, Individual Teacher, Faculty and Curriculum-specific Requirements. It also reported offering a Pre-service Teacher Program, which was a distinctive claim made among all the QMEA schools.

Table 7.8
Professional learning initiatives offered by DASY

<table>
<thead>
<tr>
<th>Y</th>
<th>Professional learning initiatives</th>
</tr>
</thead>
</table>
| 2007 | • Provide professional development and training opportunities for teaching and non-teaching staff to ensure continuous growth in skills and knowledge.  
• Maintain a highly structured and supportive policy framework to cope with a teaching workforce characterised by frequent change and large numbers of beginning teachers  
• ICT pedagogical license & ICT certificate  
• Cluster assessment moderation & bank of assessment standards. |
| 2008 | • All staff have completed ZIP training – (Zero Incidence Process) We are the only school in Australia to be offering this to staff and Year 12 students. It is a psychologically based program that looks at how we make decisions, effective communication and safety. (This has been paid for by BMA Norwich Park Mine as part of their wider strategy to embed a culture of ZIP across the entire community).  
• Provide professional development and training opportunities for teaching and non-teaching staff to ensure continuous growth in skills and knowledge.  
• Maintain a highly structured and supportive policy framework to cope with a teaching workforce characterised by frequent change and large numbers of beginning teachers  
• ICT pedagogical license & ICT certificate  
• Cluster assessment moderation & bank of assessment standards |

Table 7.8 tells that DASY provided teacher professional learning and training opportunities for its teachers to grow their skills and knowledge. It also used a structured and supportive policy framework to deal with frequent staff changes and its large number of beginning teachers. Assessment related initiatives were offered for its teachers. Possible VETiS related offerings were ICT Pedagogical License and the ICT Certificate, which were offered in both 2007 and 2008. But in 2008, Zero Incidence Process (ZIP) training – a psychologically based program, was offered with sponsorship by Billiton Mitsubishi Alliance Norwich Park Mine. DASY was “the only school in Australia to be offering this [training] to staff and Year 12 students” (Annual Report, 2008).

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87 Jointly owned by Mitsubishi Development Pty Ltd and BHP Billiton, the BHP Billiton Mitsubishi Alliance (BMA) is Australia’s largest coal miner and exporter, and the world's largest supplier to the seaborne coking coal market.
Table 7.9 demonstrates that the majority of the initiatives offered by BOLA to its teachers were the same in both 2007 and 2008, including Curriculum Development, different kinds of training, programs and conferences. The potential VETiS related initiative for teachers were New School Reporting and Student Management Software. However, in 2008 the organised professional learning included the Australian Summer Schools Program and Workplace Health and Safety Officer Training which could be VETiS related. These initiatives indicate that there were a large number of students at this school who were doing VETiS in the workplace.

From the analysis of the evidence, one explanation for it can be that there are not many VETiS offerings for teacher professional learning in these particular QMEA schools. This means that these QMEA schools are still academically oriented in this regard.

Teacher professional learning plays an important role in teaching because “curriculum is a weak force for regulating teaching” (Coyle cited in Sadovnik, 2007, p. 137). Although teachers tend to cover the topics reflected in the curricula, they use their own judgment and may vary widely in their pedagogy, the time devoted to various topics and their modes of assessment. There is a need for VETiS training to improve teachers’ professional learning.

Consistent associations between teacher professional learning and student outcomes have been found in some studies. For example, it was found that “students’ achievement is higher in high schools in which teachers perceive a greater sense of
efficacy and responsibility for student learning and in schools where educators have engaged in restructuring activities” (Sadovnik, 2007, p. 138). Such organisational change in teacher professional learning is assumed to influence students’ learning outcomes by influencing the conditions for Senior Learning and promoting devotion to the academic/VETiS mission among teachers. This is expected to lead to enhanced teaching and better learning outcomes. Teachers who participated in school-wide professional communities tended to engage in more innovative teaching. This perception is consistent with the view that “a community of teachers encourages instructional innovation, which promotes greater learning, [and] innovative instruction lead to both school restructuring and better learning” (Sadovnik, 2007, p. 138). With appropriate staff and funding, the QMEA has the potential to organise inter-school professional learning communities, especially through the use of new Information and Communication Technology.

The QMEA provided teacher professional learning for its school teachers, as Jane, a partnership manager (Aug 6, 2009) explained it:

> What we do, we pay particular attention to our teachers, because to be honest, if the teachers don’t understand, they are not going to promote it to the students, and they will not engage the students. So teacher professional development is a core part of our business. We do that in two ways. In one way we actually take groups of teachers on excursions and tours and activities, to provide that one-on-one level of exposure. In another way, we work in partnerships with the Queensland Resources Council.

So teacher professional learning can be delivered either in schools, out of schools or in the workplace, especially for training VETiS teachers. However, wherever the training occurs, it requires funding, which is the focus of the next section.

### 7.2 Schools’ investment in teachers’ professional learning

Offering professional learning initiatives to teachers was one part of the measures for making organisational changes taken by each QMEA school. Another important part of this was the funding for VETiS professional development.
Professional learning requires considerable funds, particularly when it is maintained over time and involves collaboration among teachers and, between schools and industries. Different QMEA schools expended different amount of money on teacher professional learning, depending on the size of the school and their available funding (see Figure 7.1).

![Figure 7.1](chart.png)

**Figure 7.1**
Total funds expended on teacher professional learning (2007)

Of the eighteen QMEA schools, two schools did not provide analysable information in this regard in their Annual Reports of 2007 and 2008. KAN invested the most funds ($94,335) on teacher professional learning in 2007, and DASY the least ($14,026). This is in part due to differences in the sizes of schools. Most QMEA schools expended between $20,000 and $40,000 on teacher professional learning. While one quarter of them spent less than $20,000, MARO, VELA and ALAN invested more than $40,000. The amount of money spent on teacher professional learning reflected schools’ principles, policies and strategies in teachers’ in-service education. However, the amount of money directly used on VETiS related professional learning was difficult to establish from the information given in these reports. In 2008 changes occurred in the funds invested in teacher professional learning in most QMEA schools (see Figure 7.2).
Among the same sixteen QMEA schools, KAN kept leading the investment ($102,733) in teacher professional learning, increasing it slightly in 2008, and NOA invested least ($6303). A quarter of the schools invested more than $40,000, while another quarter spent less than $20,000. Half of the schools spent between $20,000 and $40,000 on teacher professional learning. Again it was not possible to identify how much money was specifically used for VETiS initiatives, a significant absence in public accounting for this initiative. It is possible to compare funds invested in professional learning by these schools in 2007 and 2008 as a way to gain insights into this aspect of organisational change in the QMEA schools (see Figure 7.3).
There were changes in the investment on teacher professional learning in all sixteen schools from 2007 to 2008. Nine of them increased their funds invested in teaching professional learning, with four showing a marked increase. However, seven schools decreased their funding of such initiatives, with two reducing their investment in this area substantially. KAN was outstanding in their investment in the two years with much higher expenditure on teacher professional learning than all the other QMEA schools. RICK increased its investment by $18327 from 2007 ($18000) to 2008 ($36327), while MERA increased its investment by a similar amount ($18137) from $26369 to $44506. VELA increased its investment by $14590, from $28897 (2007) to $43487 (2008), and BOLA did likewise by a similar amount ($13051) from $24460 (2007) to $37511 (2008). However, MARO reduced the amount ($17340) of its investment from $47136 in 2007 to $29796 in 2008, and TOAL decreased its investment ($11430) from $32085 in 2007 to $20655 in 2008. NANA and BATER invested more or less similar amounts during these two years with only a slight increase or decrease. That more schools increased their funds in teacher professional learning indicates that QMEA schools valued teacher professional learning, especially in the enhancement of teachers’ capacity, skills and knowledge. Many schools offered programs for beginning teachers as a way to improve the quality and standards of teaching practices.

7.3 Teachers’ involvement in professional learning initiatives

It was also necessary to investigate another side to teacher professional development. Specifically, it was necessary to investigate teachers’ involvement in these initiatives since the QMEA schools had offered these possibilities for professional learning and invested much money in it (see Figure 7.4).
Teachers’ professional learning during 2007 saw one quarter of the QMEA schools with 100% of their teachers involved in the initiatives offered. While LONY had 74% of their teachers participate in professional learning, BAMA did not publicly report doing any. BATER and MARO reported they had over 90% of their teachers engaged in these activities while others reported less than that. In 2008, only two schools, PINI and TOAL reported that all of their teachers were involved in school initiatives for professional learning. KAN, LONY and BAMA reported that over 90% of their teachers participated in the activities offered. NANA did not report doing any. However, 70% of the teachers at NOA were involved in professional learning.

PINI and TOAL reported that 100% of their teachers were involved in the professional learning initiated by these schools in both 2007 and 2008. The number of teachers engaging in the initiatives offered by QMEA schools grew from 90% (2007) to 94% (2008) for KAN and 74% (2007) to 91% (2008) for LONY. PEER reported nearly the same number of teachers being involved. All the other schools reported that the percentage of teachers involved in these initiatives fell, with DASY reducing 17.6% and MERA, 12% from 2007 to 2008. Around 70% of teachers of NOA were reported to be involved in the activities initiated by school in both 2007 and 2008, which represents the lowest percentage of all sixteen QMEA schools. The analysis of the evidence indicates that schools expended relatively large sums of
money on providing professional training activities for their teachers, but the involvement of the teachers in these initiatives does not seem to be satisfactory. In some QMEA schools, nearly one third of their teachers did not participate in these activities. The reasons for this might be multiple, with teachers’ interests and satisfaction being one among many possibilities. For example, 100% of teachers at TOAL were involved in these activities across these two years. However, according to the School Opinion Survey teachers’ satisfaction rate for participation was only 58%, which was reported as reflecting “an ever growing need for development and training as the school, Education Queensland and society experience increasingly rapid change” (School Annual Report, 2007). Thus, the relation between these initiatives and teachers’ involvement is dynamic, and not always in direct proportion to the funds invested. The impact of professional learning on teachers depends in part on the quality, variety and practicality of the initiatives available for the diffusion and implementation of ideas and practices. Research indicates that teachers are more likely to “engage in nonroutine behaviour in schools where principals were more knowledgeable and supportive and where teachers obtained assistance in acquiring materials and supplies” (Sadovnik, 2007, p. 148).

Considering the issue of VETiS teacher supply from the perspective of professional education, there was virtually no experience or history of Education Departments being involved in the preparation of VETiS teachers. This lack of a tradition in the training of VETiS teachers is likely to become more complicated given the way and the amount schools are funded for teachers’ professional learning and skills training. The strength of boundaries between disciplinary fields, as well as the historically low status of the VET curriculum as a field to be engaged in is also very important factors (Young, 2008).

Research to date demonstrates that professional development is usually “effective when it is embedded in the school and when it is the focus of collaborative discussion and action” (Little cited in Harris, 2003, p. 377). However, the possibilities for interschool professional development in an organisation such as the QMEA require further investigation. Professional learning is conceived of as “a collaborative process” (Villegas-Reimers, 2003, p. 14). Even though there may be some opportunities for isolated work and reflection, most effective professional
learning occurs when there are meaningful interactions, not only among teachers themselves, but also between teachers, administrators and other community members.

A challenge to implementing effective professional learning can be the lack of time. Teachers need time to understand new concepts, learn new skills, develop new attitudes, research, discuss, reflect, assess, try new approaches and integrate them into their practice. They need time to plan their own professional learning. More time and variety for professional learning result in “the enhancement of teacher capability, skills and knowledge, and hence more learning for students” (Sadovnik, 2007, p. 143). When teachers are more capable, they cover the curriculum more extensively or in greater depth, and this yields enhanced learning for students, although the pattern may be invariable.

Additionally, teachers’ professional learning may influence student pathways. For example, on the whole, school career advisers view VETiS in a positive vein, and they claim “to advise all students of its merits as a pathway to pursue” (Dalley-Trim, Alloway, Patterson & Walker, 2007, p. 31). This is important, because these positive attitudes towards VETiS are likely to lead them to advise young adults about the merits of the program. However, their advising practices differ for different students, categorising students as either academic or non-academic. They tend to advise the academic students to take VETiS subjects in order “to gain an advantage over their fellow academically-oriented peers and to get some relief from the serious and rigorous work of academic studies” (Dalley-Trim, Alloway, Patterson & Walker, 2007, p. 31). In contrast, the undertaking of VETiS subjects was presented as the ‘only’ option to non-academic students. One career adviser spoke of teachers’, students’ and parents’ perceptions of VETiS, saying that:

a lot of students see VET as the veggie subjects, the second grade subjects and, unfortunately, a lot of the teachers see it that way as well, and so when the students go into those subjects they think they are doing the lower, the second rate subjects … and there really has to be a change in perception from teachers and kids and parents about the worth of the VET arena (Dalley-Trim, Alloway, Patterson & Walker, 2007, p. 33).

Although career advisers viewed VETiS in a positive vein for the most part, and they claimed to advise all students of its value as a pathway to be pursued, their practice
of advice giving differs for different students, having the potential to affect the pathway choices of some young adults. Even so, now it is possible for students who complete advanced VET qualifications to have these recognised and credited for entry into university programs.

Career advisers in schools advised their students differently due to their attitudes towards VETiS. Academic students are advised to take VETiS subjects to gain an advantageous position over their non-academically-oriented peers; while non-academic students are advised to take VETiS subjects because this is their ‘only’ viable option given their supposed lack of academic ability (Dalley-Trim, Alloway, Patterson & Walker, 2007). In effect, this is a means of streaming students by ability. The consequence of advising students in this way is likely to lead non-academic students all together into VETiS programs while doing so more selectively and discriminately for their academic counterparts. In regard to professional competency and practice, this practice by school career advisors raises problems such as VETiS education of career advisers. Career advisors may need to be better informed about VETiS and the potential benefits it offers all students, with professional learning plans put in place in order to ensure this. As a long-term strategy for teacher professional learning,

the preparation of school career advisers with backgrounds in trades and other work-related backgrounds would begin to address the influence often unconsciously exerted by teachers in Australian schools (Dalley-Trim, Alloway, Patterson & Walker, 2007, p. 35).

So, the education of career advisors may need to be improved. The concern is that they might mislead some students, and lead VETiS programs astray. For schools it takes considerable effort to ‘market’ VETiS as a viable course of study and as a useful and necessary part of all students’ preparation for life beyond school. The improvement in the quality of school career advisors via professional learning might be a help in ‘marketing’ VETiS.

Teachers are influential factor in organisational change in QMEA schools. The crucial role of teachers in the efforts to innovate the curriculum might be assessed from different perspectives. The lack of innovative professional learning initiatives
has been attributed to the failure of teachers to implement the innovation of curriculum “in a way corresponding to the intentions of the developers” (van Driel, Beijaard & Verloop, 2001, p. 137). The claim is that “educational reform efforts are doomed to fail if the emphasis is on developing specific teaching skills, unless the teachers' cognitions, including their beliefs, intentions, and attitudes, are taken into account” (van Driel, Beijaard & Verloop, 2001, p. 140). This is not so for many QMEA schools which offered training in specific teaching skills. Most QMEA schools invested funds in enhancing teachers’ skills and knowledge in areas such as ICTs, VET courses, literacy and numeracy. Professional learning has to be “a permanent process, aimed at extending and updating the professional knowledge and beliefs of teachers in the context of their work” (van Driel, Beijaard & Verloop, 2001, p. 148). The focus is on facilitating the growth of professional knowledge and pedagogical skills that teachers already have and use for teaching.

MERA was the only school that provided their teachers with Peer Learning Circles as one of the initiatives. This could present a feasible strategy for teacher professional learning across QMEA schools. Peer learning is “a process of cooperation between two or more colleagues in which they exchange ideas, attempt to implement these ideas, reflect on their own teaching practice, and so on” (van Driel, Beijaard & Verloop, 2001, p. 149). This reciprocal interaction could extend across QMEA schools. Theoretically, collegial learning strategy can impact on how teachers function within and across QMEA schools. This is because most teachers are “professionals in isolation” (Clandinin cited in van Driel, Beijaard & Verloop, 2001, p. 149), and are not used to talking about their work. Peer learning implies that certain working conditions would have to be met and implemented by the QMEA so that it becomes part of its schools’ culture.

Teachers’ involvement in professional learning is closely linked to the organisational reform, that is the ‘hub-and-spoke’ model represented by the QMEA. Because professional learning is a process of culture building and not mere skills training and knowledge building, it is important to constituting the QMEA. Villegas-Reimers (2003, p. 24) argues that
educational reforms that do not include teachers and their professional learning have not been successful. Professional-learning initiatives that have not been embedded in some form of reform of structures and policies have not been successful either”.

To be satisfactory, professional learning experiences and opportunities need to be embedded in the major reform of structures, policies, and organisations of schools. Changing teachers without changing contexts, beliefs, and structures rarely created significant organisational change. Unless there is some QMEA school-wide commitment and collaboration, most attempts at promoting teacher professional learning are likely to be less than effective. In other words, educational reforms and teacher professional learning go hand in hand, such that they share “a symbiotic relationship” (Villegas-Reimers, 2003, p. 26).

Teacher professional learning is a key factor in ensuring that school organisational reform represent by the QMEA’s hub-and-spoke model is effective and fruitful. Successful professional learning opportunities for teachers have a significant positive effect on their teaching and hence students’ performance and learning outcomes (Villegas-Reimers, 2003). Given that the goal of education is to increase students’ learning and to improve their future work/study trajectory, teachers’ professional learning is a key to such achievements.

Some QMEA schools provided their teachers with Positive Behavioural Support programs, which is particularly important for beginning teachers. This is because, according to the Australian Centre for Equity through Education and the Australian Youth Research Centre (cited in Smyth & Fasoli, 2007, p. 276), the most important factors connecting young people to school were “linked to relationships – friendship with other students and relationships with teachers that involved mutual respect and responsibility”.

In this sense, teacher professional learning is a key resource in constituting the QMEA as much as providing its teachers with respect, personal relations, competence and integrity.
Teachers’ professional learning can serve as an incentive for organisational changes across schools. The schools with high-quality teaching and learning might not experience many organisational changes in teachers’ professional learning. Newly established schools and small schools that intended to develop might encounter these issues from the beginning. Therefore, organisational changes in teachers’ professional learning are not something that can take place once but “a process of continuous improvement” (Sadovnik, 2007, p. 148). Schools being restructured to be part of the organisational changes represented by the QMEA have to be dynamic and adaptive, not static. Teachers’ professional learning plays a key role in “stimulating, supporting, and enhancing these changes” (Sadovnik, 2007, p. 148).

School teachers are now engaged in diverse work experiences, vocational and academic courses, flexible learning services, planning holistic engagement strategies and growing their innovative leadership capacities (Harreveld, 2007). Deeper professional learning is essential to equip teachers with the capacity to live and thrive as professional educators in QMEA schools. This is because knowledge no longer exists solely in the heads of teachers to be transmitted to their students. Teachers’ work is to support their students-as-learners, navigating across oceans of knowledge and information, helping them make sense of what they discover and putting it to use in many and varied situations. In this sense, teachers “carry great moral, as well as intellectual responsibility” (Newby cited in Harreveld, 2007, p. 286). However, while times keep changing both structurally and pedagogically, teacher professional learning looks very much as it did decades ago; it may be time for QMEA leaders in the hub and spokes to change their approach to teachers’ professional learning, especially for VETiS in order to move towards a new professionalism for teachers. To achieve this, there is a need for support from Governments. Bardsley (2007, p. 502) notes that the former “Howard Government was advocating another adverse policy in which each teacher is held accountable for students’ performance, which could involve demotion or dismissal for poor performance, or better pay for high achievement”. However, it is argued that “teaching success is not measurable by simplistic quantitative criteria and the public school system relies upon a philosophy of cooperation and camaraderie amongst teachers” (Bardsley, 2007, p. 502).

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88 The Gillard Government seems to pursuing a similar policy.
Moreover, teachers, who are already comparatively poorly paid professionals often working in substandard conditions, could have their morale undermined further and students would suffer.

If ‘human resources’ are considered important for QMEA schools, teacher professional learning is an important element of organisational reforms. Given the high degree of teacher autonomy in the classroom, the emphasis on teachers’ professional learning over material resources seems promising (Sadovnik, 2007). A strong professional community across QMEA schools – collaboration and continuous learning among teachers, provides the capacity for improving teacher instruction and ultimately for enhancing student learning outcomes.

Teachers in some QMEA schools form relationships with one another around academic concerns of teaching and learning. These social networks constitute important resources on which teachers can draw to improve their teaching. Under certain conditions, social relations among teachers may profoundly influence their classroom work and thereby affect student learning. When teaching is considered as complex, interactive, dynamic and changing, rather than routine, the QMEA has to rely on “developing commitment rather than imposing controls” (Sadovnik, 2007, p. 145). This may lead to more successful teaching and learning outcomes.

For the other QMEA schools (n=7), there were no apparent VETiS related initiatives that could be recognised in the offerings reported for both the 2007 and 2008 school initiatives (see Appendix 8). However, some of their initiatives might be VETiS related, but they were not explicitly reported as such. For example, most QMEA schools offered the Queensland Certificate of Education (QCE) which now includes VET courses, but the schools just mentioned this without presenting any specific information in this regard. Some schools provided their teachers with external and internal professional learning including conferences, seminars, workshops, induction programs and training courses.
7.4 Vocationalism and teacher professional learning

This section is based on the foregoing evidentiary analysis and provides a second level of analysis by exploring the possible connections between the evidence in this Chapter and the key conceptual tool presented in Chapter Two (see Table 7.10).

Table 7.10
Vocationalism in organising teacher professional learning

<table>
<thead>
<tr>
<th>Key concept</th>
<th>VETiS related initiatives (2007-2008)</th>
<th>Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification</td>
<td>VET qualification</td>
<td>LONY</td>
</tr>
<tr>
<td></td>
<td>Certificate 4 accreditation</td>
<td>LONY</td>
</tr>
<tr>
<td></td>
<td>Certificate 4 for VET teachers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ICT pedagogical license/Certificates</td>
<td>BATER</td>
</tr>
<tr>
<td></td>
<td>ICT Certificates</td>
<td>NANA</td>
</tr>
<tr>
<td></td>
<td>FCT pedagogical license/Certificates</td>
<td>VELA</td>
</tr>
<tr>
<td></td>
<td>ICT pedagogical license/Certificates</td>
<td>DASY</td>
</tr>
<tr>
<td>Course</td>
<td>Intermediate to Advance Welding</td>
<td>LONY</td>
</tr>
<tr>
<td></td>
<td>Engineering Computer-aid Design Software</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vocational subjects</td>
<td>NOA</td>
</tr>
<tr>
<td></td>
<td>Manual Arts, Hospitality</td>
<td>PINI</td>
</tr>
<tr>
<td></td>
<td>Manual Arts, Hospitality</td>
<td>NANA</td>
</tr>
<tr>
<td></td>
<td>New school reporting/student management software</td>
<td>BOLA</td>
</tr>
<tr>
<td>Training</td>
<td>Certificate 4 Training and Assessing</td>
<td>BATER</td>
</tr>
<tr>
<td></td>
<td>ZIP training (BMA Norwich Park Mine)</td>
<td>DASY</td>
</tr>
<tr>
<td></td>
<td>Workplace Health and Safety Officer Training</td>
<td>BOLA</td>
</tr>
<tr>
<td></td>
<td>Vocational Education and Training</td>
<td>BAMA</td>
</tr>
<tr>
<td>VET network</td>
<td>VET network</td>
<td>NOA</td>
</tr>
<tr>
<td>Non-VETiS</td>
<td>Literacy, Numeracy, Curriculum development, ICTs,</td>
<td></td>
</tr>
<tr>
<td>common offering</td>
<td>Leadership, Positive Behaviour Support, Beginning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teacher Initiative, conference, seminar, workshop, training, program</td>
<td>The other QMEA schools</td>
</tr>
</tbody>
</table>
industry, and the skilled worker presumably did not know how to teach” (Kliebard, 1999, p. 107). Additionally, industry was not enthusiastic about the schedule that students spent one week in school and the next week in the factory, because the students were still being instructed by the traditional high school methods. The new type of teacher was to be “skilled workers who had taken short course for [training] teachers rather than enduring a long course of professional training” (Kliebard, 1999, p. 107). With some VET being based in schools, it proved to be necessary to train specialist teachers to teach them. This was possible for teachers who already had teaching experiences but needed to make up for a lack of knowledge of a trade. If the QMEA could include trade knowledge in teacher professional learning, the supply of VETiS teachers might not be impossible.

Historically, schooling was defined in terms of evidence of “distinctive educational personnel (eg. ‘teachers’), distinctive educational instruments (eg. ‘textbooks’), and distinctive educational premises (eg. ‘schools’)” (Hamilton, 1989, p. 13). However, the QMEA indicates that this is changing now. From the perspective of VETiS, schooling can be extended to be implemented at worksites with students taught by mentors or supervisors to learn skills and knowledge which might not be available in schools. Teachers/mentors undertook the responsibility for “the transformation of immature human beings into appropriately-socialised adult citizens” (Hamilton, 1989, p. vii). Where QMEA schools were thought to be free from social and economic structures they were seen as being independent sites of educational innovation, with change coming from the ability of teachers to build new educational relationships within the status quo (Hamilton, 1989). The development of schooling required that “normal schools were founded for the training of teachers” (Hamilton, 1989, p. 126). This is one possible way of solving the problem. Other organisations may also help train teachers. For example, the QMEA provided its school teachers with opportunities to attend conferences and training programs. However, the formation of stable class was weakened by frequent teacher turnover. After the stability of schools was built, teachers, classes and rooms were organised into a one-to-one relationship, with each room housing a single class and each class being left in the overall charge of its own certificated ‘class’ teacher (Hamilton, 1989). To keep the schools going, a large group of reliable teachers had to be created for schools’ progress. Then, funds needed to be generated to ensure schools’ survival and
teachers’ training and knowledge building. Organisationally simultaneous instruction meant that the ‘mind’ of every student would be always under the control of the teacher in order to make all the students benefit from the instruction (Hamilton, 1989). Teachers needed to learn the knowledge and skills to make simultaneous instruction efficient and effective. Now the ‘hub-and-spoke’ model represented by the QMEA creates the possibility for teachers to have chances of doing projects and programs for gaining knowledge and capacity of teaching.

Teachers and students are typically involved in “a relationship of transmission and acquisition, whether this is unilateral or reciprocal” (Bernstein, 1977, p. 176). The organisational structure of the QMEA focuses on the relationships between fundamental scholastic categories, that is, between teachers and between students. If the relationship between these categories is weakly classified, then the relationships between them are “less sharply distinguished, there is reduced insulation between functions, and agents are more interchangeable between categories” (Bernstein, 1977, p. 182). Those engaged to teach VET students no longer need to be qualified teachers; they may be skilled tradespeople in workplaces such as in the mines and energy sector. The organisational structure shows the form of the relationship between teachers: “whether teachers are [organised] into discrete units on the basis of their subject (strong classification) or whether the [organisation] of teachers is defined by some principle which integrates and subordinates subjects (weak classification)” (Bernstein, 1977, p. 178). In the QMEA schools there seems to be both strong classification and weak classification. In some QMEA schools, the offering of professional learning was organised into discrete units, while in others, the offerings integrated.

Implementing organisational changes in the QMEA schools was problematic for several reasons. One of them was that it was not clear what particular kinds of trades could be successfully taught and who could teach them. School teachers were generally considered to be too academically oriented to be entrusted with trade training. Historically, there have been differences in orientation and outlook between school personnel and teachers of practical skills (Kliebard, 1999). The evidence analysed in this Chapter indicates that this situation was changing in QMEA schools. Some schools provided their teachers with VETiS professional learning and/or VET
training and certificates, and invested large sum of funds to help them. Even though these QMEA schools invested in teacher professional learning, a fundamental change in the organisation of professional learning requires generous government support, since VETiS training requires uncommon tools, equipment, space, which adds considerable costs to the QMEA professional learning programs.

Vocational education entails long periods of training, close attention to the qualifications and credentials of VETiS teachers, and very considerable flexibility for the QMEA and its schools to shape the programs and activities (Kliebard, 1999). However, it is difficult to imagine schools keeping up with the rapid technological changes that occurred in modern industrial society. Outmoded equipment and machinery, the problem of obsolescence manifested itself in the ability of teachers in vocational programs, who were themselves often removed from the workplace, to “keep abreast of the shifting skills that a given job requires” (Kliebard, 1999, p. 217). Thus, the QMEA’s efforts to link schools and industry might make the full use of advantages of both schools and industry to make the benefits for young adults.

Historically, a substantial part of the failure of vocational education, in an instrumental sense, stemmed from the kind of knowledge vocational teachers sought to instil not being readily conveyed in a school setting. Schools have the capacity to teach the young to manipulate symbols and to explain how things work but not the skilful performance that many trades require (Kliebard, 1999). For the QMEA this idea proves to be incorrect. Schools per se may not be as capable as industry in skilful performance, but schools can partner with industries to train their teachers. Organisationally, the responsibility for formulating and implementing the training of teachers in vocational education is being shared with industries.

7.5 Conclusion

This Chapter has turned attention to the teachers in these QMEA schools and their professional learning by exploring the organisation of teachers’ professional learning, including the QMEA schools’ investment in the professional learning, and teachers’ involvement in these initiatives. This evidentiary analysis helps to better understand
the important role teachers’ professional learning plays in establishing the QMEA as a hub-and-spoke organisation. The findings indicate that there is variance in VETiS related offerings in different QMEA schools. Teachers’ involvement in the professional learning is not in direct proportion to the schools’ investment in the initiatives. The initiatives provided by almost all the QMEA schools still centre on academic knowledge building and pedagogical skills. Few schools appear to convey information to their teachers that they are QMEA schools and encourage their teachers to be involved in the programs, activities, training or awards offered by the QMEA. This reveals that the ‘hub-and-spoke model’ does not have a direct impact on teacher professional learning in some QMEA schools. The evidence of this Chapter was theoretically interpreted using key concept – vocationalism (Kliebard, 1999) to provide the potential links between the two and what these means for organisational change in QMEA schools. After investigating schools’ ‘communication’ with their teachers through professional learning, the next Chapter analyses the QMEA schools’ public communication about VETiS.
CHAPTER EIGHT
ORGANISING QMEA SCHOOLS’ PUBLIC COMMUNICATIONS ABOUT VETIS

8.0 Introduction

QMEA schools’ public communication refers to the information produced by QMEA schools for public consumptions in school newsletters. This information is useful in understanding the QMEA schools’ perspectives on programs, structures, and other aspects of their organisation. QMEA schools’ public documents are indicators of strategies for “increasing fiscal support”, as well as representing “a direct expression of the values of those who administer” the QMEA schools (Bogdan & Biklen, 2007, p. 137).

QMEA schools produce different public documents to express their ideas, explain the strategies they take and indicate the options offered. QMEA school newsletters are one of such sources of evidence. Newsletters are a form of propaganda for an organisation. They are an important document being used by schools to deliver information they select and prefer to make known publicly. They also serve the purpose of providing an effective means to communicate both externally and internally.

However, newsletters are viewed by some researchers as “extremely subjective, representing the biases of the promoters and, when written for external consumption, presenting an unrealistically glowing picture of how the organisation functions” (Bogdan & Biklen, 2007, p. 137). In contrast, I looked upon them favourably. This is because I was interested in understanding what the QMEA schools were saying, officially or formally about the organisational changes associated with VETiS to the public rather than whether what they said was ‘the truth’ as is the usual criterion. In addition, these official documents were readily available to me on each of the QMEA schools’ websites. This is a source of evidence that has rarely been used to investigate the research problem addressed in this thesis. Thus, in this Chapter, seven QMEA schools’ newsletters (2009) and also interview data are analysed for the information they presented in terms of VETiS to investigate the research question of
what amount and variety of public communications QMEA schools engage in about VETiS and the QMEA. There were issues of frequency and availability of the QMEA schools’ newsletters. Only seven QMEA schools produced newsletters fortnightly or monthly, and these were selected for analysis. The aim of doing this document analysis was to investigate what information was provided about the changes and strategies associated with VETiS in the newsletters of these QMEA schools that they chose to convey to the public. Further, the analysis of these public documents also helped reveal what else might need to be done for the young adults in the QMEA schools in order for them to have a better transition from school to work and/or further education and/or training.

Among the seven QMEA school newsletters selected for analysis for 2009, three of them issued newsletters every month, two schools issued newsletters for eleven months, another two produced them over ten months and one school produced them for seven months (see Table 8.1).

<table>
<thead>
<tr>
<th>Schools</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALAN</td>
<td>n/a</td>
<td>x</td>
<td>x</td>
<td>√</td>
<td>√</td>
<td>x</td>
<td>n/a</td>
<td>x</td>
<td>x</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>BATER</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>VELA</td>
<td>x</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>√</td>
<td>√</td>
<td>n/a</td>
<td>√</td>
<td>x</td>
<td>x</td>
<td>√</td>
<td>x</td>
</tr>
<tr>
<td>PINI</td>
<td>n/a</td>
<td>x</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>n/a</td>
</tr>
<tr>
<td>BOLA</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>√</td>
<td>√</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>n/a</td>
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<tr>
<td>NOA</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>RICK</td>
<td>x</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>√</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Of the seven QMEA schools, PINI located in a remote mining community provided the highest amount of VETiS information. It issued newsletters for each of ten months in 2009 from February to November. However, in these ten newsletters, there was VETiS information in seven of them successively from March to September. ALAN issued newsletters in seven months, among which there was VETiS information in two of them. RICK and NOA issued newsletters every month, but there was only VETiS information in two of them, March and August for RICK and June and August for NOA. BATER, VELA and BOLA were similar, with four or five newsletters containing information about VETiS. Then how much and what kind of VETiS information was included in those issues of the newsletters for each of
these QMEA schools? In the following sections, these newsletters are analysed to answer these questions.

Guided by my research questions put forward, the need to be data analysed, and the need for innovative to data analysis in the field of education research I tested some novel analytical methods in this thesis. The concept of ‘hub-and-spoke’ organisational mode is illustrated in this Chapter in terms of the public communications of QMEA schools about VETiS and the QMEA. The data analysis in this Chapter is structured around an initial First Cycle analysis (evidentiary-commentary analysis) and then a Second Cycle (theoretical analysis). Saldaña (2009, p. 45) proposed that “First Cycle methods are those processes that happen during the initial coding of the data”, whereby the data is divided into subcategories and an evidentiary profile developed in line with the themes that come forward. In this Chapter these subcategories were construed using an inductive approach to analysis. During the Second Cycle of data analysis I focused on “abstracting, conceptualising, and theory building” (Saldaña, 2009, p. 45).

8.1 Public communication about VETiS and the QMEA

The number of schools offering VETiS programs in Australia increased substantially from 1996 to 2003 and there was a parallel increase in the number of students who participated in VETiS (Dalley-Trim, Alloway, Patterson & Walker, 2007). There are two main means of undertaking VETiS. One is through course or subject programs; the other is through school-based New Apprenticeships. QMEA schools use newsletters to provide information about these offerings to their students, teachers, parents and the public. With regards to this form of public communication, different QMEA schools provided different amounts of information about VETiS in their school newsletters. For instance, ALAN in metropolitan Brisbane published three issues with VETiS information about careers and the QMEA in the middle of the year (see Table 8.2).
Table 8.2
Information from ALAN about VETiS and the QMEA

<table>
<thead>
<tr>
<th>Date</th>
<th>VETiS and QMEA Related News</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 April</td>
<td>ALAN is a member of the Queensland Minerals and Energy Academy, a joint venture between the</td>
<td>QMEA news from Principal</td>
</tr>
<tr>
<td></td>
<td>Queensland Resources Council and the Queensland Government, and worked with Ms Brown to find</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a suitable scholarship and convert her passion for maths and science towards a successful</td>
<td></td>
</tr>
<tr>
<td></td>
<td>career in engineering. &quot;It wasn't until late year 10 that this foreign word 'engineering'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>started to open my eyes to the amazing opportunities I had to do something which I loved,&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ms Brown said. &quot;The idea of becoming a successful female in a typically male-dominated field</td>
<td></td>
</tr>
<tr>
<td></td>
<td>was definitely a catalyst in making my decision. I think this current increase is fantastic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and hopefully it will encourage even more girls to consider studying engineering.&quot; (From the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>principal)</td>
<td></td>
</tr>
<tr>
<td>11 May</td>
<td>Career Keys: Where It’s All About You</td>
<td>Career news</td>
</tr>
<tr>
<td></td>
<td>Do you want to work school hours? Help children to learn? Gain valuable skills and knowledge?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cert III in Education Support Teacher Aide 30613Qld</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.careerkeys.com.au">www.careerkeys.com.au</a></td>
<td></td>
</tr>
<tr>
<td>25 May</td>
<td>Careers Corner: Parents of senior school students are invited to attend QUT’s Parent</td>
<td>Career news</td>
</tr>
<tr>
<td></td>
<td>Information Evening for useful information to support their son or daughter as they make</td>
<td></td>
</tr>
<tr>
<td></td>
<td>important career decisions in their senior years of school. The evening focuses on gaining</td>
<td></td>
</tr>
<tr>
<td></td>
<td>entry to university, courses at QUT, helping students with career decisions, study costs,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and resources for students and parents. Wednesday 3 June Creative Industries Precinct,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kelvin Grove campus 6.30-8.30pm</td>
<td></td>
</tr>
</tbody>
</table>

In the forward to the newsletter of the 27th April, 2009, the principal delivered news about the QMEA, explaining that this school was a QMEA school and briefly introduced the QMEA. The principal also encouraged more girls to consider studying engineering. In the issue for the 11th May, 2009, there was information about Certificate III in education. In the following issue for the same month, the Careers Corner canvassed different pathways for going to university or seeking a career.

Among the seven schools, ALAN was the only one that issued a newsletter in the principal’s forward with an introduction about VETiS and the QMEA. This potentially signals the principal’s positive attitude towards VETiS and the valuing of the schools’ involvement in the QMEA. School principals are key figures in schools and can be decisive in aiding VETiS and the QMEA reforms. The following interview evidence expressed this idea about the significance of principals in VETiS. The interviewees were asked, ‘who is doing a good job and why with regard to VET in schools?’
I honestly believe it comes from the principal. If you’ve got a principal that’s supportive of – that’s not just focussed on, OP’s as everything, who can see that they need to have the broad range of opportunities for all the kids, ‘cause there’s so many different – that’s where it works. That’s where it works the best. (Jane, Industry Representative, Aug 5, 2009)

Look, number one is that the principal of the school needs to support VET. (Maggie, Regional Partnership Manager, Aug 4, 2009)

I guess it’s always the principal that would have the ultimate say. (Allan, VET Coordinator, Aug 4, 2009)

In the QMEA schools, the principals are the people who have the final decision about what is to be presented in school newsletters.

I think the principal’s role is crucial, particularly in the way he or she speaks about VET. Both their spoken word and their actions are really important in identifying for students, whether that is a valued pathway. What’s written in newsletters, what the principal writes about in newsletters, but also what is encouraged to be published in newsletters. All of those things send very clear messages to students and to parents, about what the principal values, and very often that has a very large influence on what others value. (Rose, Director Assistant, Aug 9, 2009)

If the school principals and their staff do not present a positive attitude towards VETiS, students might be negatively affected.

There were some issues with changes in schools – it was very fragile. Because if a principal changed or a vocation education coordinator changed or head of department changed, who didn’t understand or support the program, it fell over. And sometimes it fell over quite catastrophically. We had one school that we regularly got students from And we usually got four, five, one year we got eight. The principal changed and the following year we got none. (Abraham, Industry Representative, Aug 7, 2009)

In some QMEA schools, VETiS was valued in theory, but not always in practice.

Our current principal has a more positive attitude to VET, but it’s often a big problem in schools, in that VET is said to be valued, but it’s often not. There’s not a lot of energy put into it. (Adelaide, VET Coordinator, Aug 6, 2009)

Organising VET in schools needs time invested in creating links with the community, industry and RTOs. This work normally is undertaken outside school hours. It needs
school principals to be “committed to VET in schools to elicit such commitment from staff” (Smith, 2004, p. 571). The QMEA can provide help to schools in this regard, organising their entrée into the community, partnering them with industries, and hence providing students with different options and opportunities.

BATER, located in a remote mining community issued four newsletters that included a range of VETiS information. The newsletters provided information about school-based traineeships, industry partnerships, news about the QMEA and feedback from the apprentices and trainees (see Table 8.3).

Table 8.3
Information from BATER about VETiS and the QMEA

<table>
<thead>
<tr>
<th>Issue/Date</th>
<th>VETiS and QMEA Related News</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 3 27 Feb</td>
<td>School Based Traineeships Available NOW! If you are interested in a school based traineeship in the following areas, please see Mrs Robert in Block A to collect an application form: Office Administration; Medical Receptionist; Indigenous Health Worker Our school would like to thank the large number of employers, who continue to support students in gaining a valuable experience of life in the workforce</td>
<td>School-based traineeships news</td>
</tr>
<tr>
<td>Issue 6 9 April</td>
<td>An early morning start saw representatives from local businesses and industry meet for breakfast in the library courtyard. The breakfast was a “thank you”, to acknowledge the efforts and commitment that local businesses have shown toward BATER. Year 12 Hospitality students catered for the scrumptious breakfast, which included hand risen croissants and fluffy scrambled eggs. Thank you to Ms Veadoe and her dedicated students for ensuring that this event was a success.</td>
<td>Partnership news report</td>
</tr>
<tr>
<td>Issue 8 15 May</td>
<td>Michael Barker and Dale Fielding were given the opportunity to attend the Queensland Minerals and Energy Academy Awards held on Thursday 24th April at City Hall in Brisbane. The awards consisted of teachers, students and representatives from business partnering with the QMEA. The awards recognised six students and one teacher from the QMEA schools, with scholarships for these students for University and Apprenticeship placements. The awards also acknowledged a teacher who had promoted minerals and energy in their education endeavours. After the Awards Breakfast, the forty students and teachers had the opportunity to visit the offices and boardrooms of Xstrata and BMA. The students had a fleeting visit yet obtained insights into the possibilities of their future in the minerals and energy sector.</td>
<td>QMEA news</td>
</tr>
<tr>
<td>Issue 15 11 Sept</td>
<td>With 50 school-based apprentices and trainees it is always great to hear feedback as to how they are going in their “taste of the workplace”. These are some of the comments already received from our community partners who continue to support BATER in offering pathways to the future. “She is a good worker and I think that she has the ability and determination to do great things.” “She is a wonderful addition to our workforce and is an absolute pleasure to have in our workplace.” “Wish she would stay on!” “Improved heaps and is progressing really well.” “Always willing to complete what tasks are asked of him.”</td>
<td>Feedback of school-based trainee and apprentice</td>
</tr>
</tbody>
</table>
In issue 3, 27th Feb, 2009, BATER provided information about school-based traineeships in the areas of Office Administration, Medical Receptionist, and Indigenous Health Worker. But it did not make it clear who would be qualified to apply for these positions, or how students might prepare themselves to make such applications. In issue 6, 9th April, 2009, details about an ‘industry breakfast’ was published to thank local businesses for the effort and commitment they had shown towards BATER. News about the QMEA was published in issue 8, 15th May, 2009 to introduce the QMEA Awards available for both students and teachers. After the Awards Breakfast, the students and teachers had a fleeting visit to Xstrata and BMA to get the insights into the possibilities of their future in the minerals and energy sector. Interestingly, in issue 15, 11th September, 2009, BATER sought feedback about the performance of their school-based apprentices and trainees from their workplaces. BATER got good feedback about its students working in a range of workplaces. BATER released news about awards made at the end of the academic year, on the 6th November, 2009. The awards included ‘school-based traineeship award’, ‘vocational education award’ and ‘the Queensland Minerals and Energy Academy awards’. Three students from this Senior school won QMEA awards.

In the newsletters produced by VELA, also in metropolitan Brisbane, there were six issues in which VETiS information was published. This included information about a Certificate III course, Try-a-trade, Hands-on activity, the QMEA news, Vocational prizes and the QMEA engineering experience (see Table 8.4).

### Table 8.4

<table>
<thead>
<tr>
<th>Date/Issue</th>
<th>VETiS and QMEA Related News</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 March Issue 4</td>
<td>Brisbane North TAFE and Kedron-VELA Services Club are providing our students with access to Certificate III in Hospitality. This qualification will contribute to the QCE and provide valuable experience. The course runs for 54 weeks. Students in Year 11 may complete the entire qualification over 15 months and students in Year 12 are to receive a statement of attainment for completion of course modules. Kedron-VELA Services Club is to be commended for their support of our students in their journey from school to future employment.</td>
<td>Certification</td>
</tr>
</tbody>
</table>
27 March
Issue 5

**Try a Trade Day** was an opportunity for girls in Years 8, 9 and 10 to find out what types of activities people undertake in a range of trades. Students tried careers such as bricklaying, electrical work, pattern making, painting and decorating and welding. Our thanks go to the QMEA for sponsoring this event and Skills Tech Australia for hosting the event.

29 May
Issue 8

These successful students, Kevin Little, Robert Sawyer, Paul Hinds, Mrs Singh, David White, will attend this year’s QMEA Engineering Experience, which gives students twelve days hands-on activity at Xstrata’s Mt Isa mine site in the June holidays.

19 June
Issue 9

Students from QMEA schools throughout the state attended the awards ceremony at Brisbane City Hall, along with representatives from industry, government and universities. The event recognised six students and one teacher from QMEA schools. Our student winner, Abraham Pearson was awarded a $2500 scholarship to further his career in the minerals and resources industry.

24 June
Issue 10

Deputy Prime Minister Gillard has just announced winners of the 2008 Vocational Student Prize. We are very proud of these two high achieving students who completed their Year 12 studies at VELA while undertaking vocational education and training. These students are to receive a certificate and $2000. We celebrate their success.

28 Aug
Issue 12

In the holidays three VELA students participated in the QMEA Engineering Experience at Xstrata’s Mt Isa Mine site. Students were in two teams. One worked on the George Fisher Haul Road project to minimise the impact of flooding on the haul road at Spear and Mullock creeks. The other team worked at the town mine to find a way to increase the capacity and capability of chilled water plants which allow people to work underground.

In the issue 4, 13 March, 2009, VELA released news about the Certificate III course in hospitality for Years 11-12 students. In the next issue of the same month, it offered an opportunity for girls to try a trade through an event sponsored by the QMEA. In issue 8, 29th May, 2009, students were offered a chance to attend that year’s QMEA Engineering Experience during the school holidays, which involved hands-on activities at a mine site. In issue 12, 28th August, 2009, the results of this activity were reported in the newsletter. Three students had participated in this activity, being involved in two different projects. In issues 9 and 10, the QMEA Awards and 2008 Australian Vocational Prize were announced. Of the six students who won the QMEA Awards, one was from VELA. Two students won the 2008 Australian Vocational Prize.

BATER and VELA offered similar news about the QMEA, but different information about VETiS. The try-a-trade, hands-on activities and the QMEA field excursion provided students with work experiences which may lead to the employment of some young adults after completing Year 12. This indicates the necessity and importance of linking working while at school and possible would-be employment.
Australian and overseas research supports the link between working at school and future job prospects, because students who worked while at school were “less likely to face unemployment” (Biddle, 2007, p. 184). However, learning the specific skills and knowledge in the workplace was not a first-order concern for some industries, because they did not want any interference with their business of producing goods and services. It is well-known that

the primary function of any workplace is not learning but the production of goods and services and the achievement of organisational goals determined internally and/or shaped by others such as head offices, parent companies and government departments (Unwin et al, 2007, p. 334).

As organisations, workplaces differ from formal educational settings in that “employees are not necessarily afforded the identity of learners” (Unwin et al, 2007, p. 340). In many occupations, learning is regarded as “an activity to be undertaken during the induction period, after which the focus must be on productive work” (Unwin et al, 2007, p. 340). It follows that workplaces typically do not “combine increased learning with increased opportunities for employees to exercise judgement and take greater control over their work” (Unwin et al, 2007, p. 340). Even so, employees are expected to possess the attributes of “adaptability, flexibility to change with workplace restructuring, competence with new emerging technologies, perpetual training and possessing transferable behavioural characteristics” (Taylor, 2005, p. 202). In this sense, it is necessary for the QMEA to identify what the employers’ expectations are from their young employees, establish how durable those expectations are and marry these expectations with the training of young adults. Employers cherish some attributes evident in young adults, including “gratitude for a job and keenness to impress” (Taylor, 2005, p. 204). In turn, young adults learn from their work experience that work-related behaviours, demeanour and personal attributes might help them get employment. In their mind, what employers expect from them is to be conventional, reliable, hard-working, deferential and docile workers (Taylor, 2005). This indicates that the majority of young people have a relatively accurate understanding of employers’ requirements and expectations, even though they may lack vocational application or hold unreasonable expectations.
With the growth of demand that learning outcomes be tied to work experience there was a need for the QMEA to work closely with employers and its schools to ensure that all parties were clear about the focus of work-related training, including placements. Traditionally, employers were encouraged to regard the outcome of a work experience placement as general experience of the world of work, but now the placement can “support work related learning in general; [be] career specific; [or] help re-engage the pupil in learning; [or be] part of their enterprise learning” (Asher, 2005, p. 68).

ALAN, BATER and VELA provided the public information about both VETiS and the QMEA in their school newsletters. However, there were some QMEA schools that presented only VETiS news in their school newsletters, ignoring the QMEA. This issue is investigated in the following section.

### 8.2 The variety of public communications about VETiS

The QMEA schools provided different amounts of information about VETiS and the QMEA. Some schools offered various kinds of VETiS information. PINI in remote regional Queensland, issued nine newsletters with VETiS information; this was the most of all the seven schools. The information covered career education, work experience, careers market, industry activities and industry programs. Most of the information was closely related to students’ future careers (see Table 8.5).

<table>
<thead>
<tr>
<th>Date</th>
<th>VETiS News</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 March</td>
<td>The VET department is receiving course booklets/prospectus'/scholarship information for next year from different universities AND general information about other career paths. Come visit the VET room or the career section (Careers Corner) in the library to browse through some of the information that is available.</td>
<td>Pathway news</td>
</tr>
<tr>
<td>1 April</td>
<td>This week we have 50 Year 11 students on Work Experience and next week we will have over 40 Year 12 students in the community. This is a very important part of the senior curriculum program and gives students an opportunity to sample different career options prior to making career decisions at the end of year 12. The school appreciates the many businesses in the community who support this learning activity.</td>
<td>Learning activity</td>
</tr>
<tr>
<td>13 May</td>
<td>Parents, students and community members are cordially invited to the 2009 Mt Isa Careers Market. Careers Markets held in Mt Isa in the past have been a great success and were strongly supported by students both within town and from the wider community. This year we have more than 20 organisations</td>
<td>Careers Market news</td>
</tr>
</tbody>
</table>
who have booked an exhibition space this year. Exhibitors will be offering local students information about the huge variety of careers and courses that are available both within and outside the Mt Isa District. Students will also learn about the variety of pathways which exist to assist them in reaching their career goals. Come and collect brochures and course information. Find out where to look on the internet for even more resources to help you decide what job would suit you. It is a great opportunity to speak directly with employers and training providers and it is free!

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 May</td>
<td>Try-A-Trade</td>
<td>This week some year 9 and 10 students will visit Townsville to participate in the Try-A Trade event hosted by Pimlico TAFE. This will be a great opportunity for our 30 students and staff to learn about, and try, a variety of trades – some of which they would not be able to try in Mount Isa. We thank MIGATE for arranging this event, and DETA and Xstrata for their sponsorship.</td>
</tr>
<tr>
<td>27 May</td>
<td>Careers Market</td>
<td>This Wednesday many PINI students will attend the bi-annual Careers Market being held at the Overlander Hotel. Students will have the opportunity to talk to local business owners and employment agencies, as well as talk to representatives from Universities about their courses.</td>
</tr>
<tr>
<td>24 June</td>
<td>Year 11 Careers Afternoon</td>
<td>Last week our year 11 participated in Work Experience, and this week year 12 students have had the opportunity. This is an important aspect of our senior curriculum which allows students to sample different career options to decide if this is of interest to them. Thank to Ms White and Mrs Watson for working so hard to make this such a valuable experience for students.</td>
</tr>
<tr>
<td>22 July</td>
<td>Year 11 Careers Afternoon</td>
<td>Planning for the Future took place on the 21st of July. Planning for the Future is an essential element of ensuring our students make well informed career decisions. During the sessions on the day, students accessed myfuture, Australia’s highest-quality career information website, and begin setting career goals and developing a mini career plan. Past PINI State College students and guest speakers from a wide cross section of the Mount Isa community discussed their varied and interesting career journeys with our current Year 11 students. Such discussions emphasised the importance of goal setting, having dreams and planning in working towards achieving these goals. Students are encouraged to follow up on any actions they need to take from the day and work towards achieving the goals they set.</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
<td>Details</td>
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</tr>
<tr>
<td>5 Aug</td>
<td>Xstrata Engineering Camp</td>
<td>Again this year Xstrata – Mount Isa Mines hosted students from around the state to participate in an Engineering Camp. 11 students from QMEA schools, including Wayne James from PINI, worked on two authentic projects - the George Fisher Haul Road project which looked at ways to minimise the impact of flooding on the haul road at Spear and Mullock Creeks, and at the Mount Isa Copper Operations, students engineered a solution to increase the capacity and capability of the R67 and K61 chilled water plants. Upon completion of their assigned projects, the students were required to present their findings and recommendations to Xstrata’s senior management team at a presentation and award evening held at Outback at Isa. The aim of the program is to allow students to experience what life is like in a mining community. We would like to thank Xstrata for again supporting this event and QMEA for organising the event.</td>
</tr>
<tr>
<td>2 Sept</td>
<td>Xstrata Bursary program</td>
<td>Last week the Xstrata Bursary program was launched. Xstrata is offering bursaries to students entering year 11 to assist them gain real life experience in the mining industry. The bursary provides $1000 financial assistance and a work introduction program. Applications close on Friday September 18. Application forms are available from the school offices.</td>
</tr>
<tr>
<td>16 Sept</td>
<td>Xstrata Bursary program</td>
<td>Applications for Xstrata Bursaries close this Friday. This bursary is offered to students entering year 11 to assist them gain real life experience in the mining industry. The bursary provides $1000 financial assistance and a work introduction program. Please return applications to the office.</td>
</tr>
</tbody>
</table>

In early March, 2009, PINI informed its students about career pathways through the Career Education column in its newsletter. This could give students time to think about it. In early April, 2009, PINI provided students with work experience as part of the Senior curriculum program. The benefit of this activity was that students had the chance to sample different career options before they made career decisions. In mid-May, students were provided with a careers market during which information about the variety of careers and courses was provided by different agencies and organisations. Students also learned about the variety of post-school pathways by speaking directly with employers and training providers. In the late May issue, VETiS related information was provided about Try-A-Trade, the Careers Market, Career Education, Work Experience and the Construction ‘Blue’ Card. News about these was repeated in ensuing editions of the newsletter. In late June issue, Year 12 students were provided the chance to have work experience. In late July, Career Education information was repeated, but news about the Year 11 Career Afternoon
was released to help students plan for the future. During this activity, students learned to set career goals, developed mini-career plans and had a discussion with past PINI students and guest speakers. In the early August newsletter, three pieces of VETiS information were provided, two of them – Engineering Camp and Career Education – had been reported before. The third one was about the Xstrata 2010 full-time apprenticeships. Application were limited in mid-August and, lasted for two weeks. Students needed to plan their next year courses or activities ahead of time. In the early September issue, the Xstrata Bursary program was launched and ended in mid-September. This program assisted students to gain real life experience in the mining industry, providing financial assistance to do so and a work induction program.

BOLA, another school in a remote regional community, started to provide students with VETiS information in early February. The information covered Local Community Partnerships, Career Advice Australia (CAA), Online Career Information, Job guide, Apprentice and Trainee Intake, the Careers Market, Work Experience, and Employability Skills (see Table 8.6).

Table 8.6
Variety of information provided by BOLA about VETiS

<table>
<thead>
<tr>
<th>Issue/Date</th>
<th>VETiS News</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 2 13 Feb</td>
<td>Structured Workplace Learning: This program aims to facilitate the provision of structured learning opportunities to students in a real or simulated workplace. In most cases, the skills are accessed and the achievement of competencies is recognised nationally by industry and education systems.</td>
<td>Local Community Partnerships</td>
</tr>
<tr>
<td></td>
<td>Career and Transition Support: Under the Career and Transition Support program the Local Community Partnerships assist young people to access a range of career development and transition support programs in their local area. Our role is not to directly deliver services but to facilitate organisations to work together to increase the availability of access to, and the quality of, career and transition support services within the region.</td>
<td></td>
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<tr>
<td></td>
<td>Adopt-A-School Program: Local Community Partnerships encourage businesses to “Adopt” a school to provide young people with hands-on learning experiences in a specific industry sector – preferably an emerging sector or one where there is a skills need.</td>
<td></td>
</tr>
<tr>
<td>Issue 6 9 April</td>
<td>Career Advice Australia helps young people aged 13 to 19 get access to career information and advice, meaningful work experience and quality information about opportunities in industries. Career Advice Australia helps you to make informed decisions about your future. The Career Advice Australia website provides information and a number of resources that can assist young people, parents, schools, business &amp;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Career Advice Australia (CAA)</td>
</tr>
<tr>
<td>Issue 9 29 May</td>
<td>The Rotary Careers Market is fast approaching and will be held on Tuesday July 28 between 9.30 am &amp; 2.30 pm and all of our students will be attending this very important event at the BOLA Civic Centre. I would strongly encourage parents to also attend this public event as it will provide our students with a range of career options and also assist them in setting some realistic Career goals. Discussing career options with your child is an excellent opportunity to reinforce the benefits of a good education. I hope to see you there.</td>
<td></td>
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</tbody>
</table>

**Step Out Program** – The Step Out program is one strategy implemented by The Australian Brick & Blocklaying Training Foundation LTD to increase the number of apprentices and bricklayers. Step Out is a 40hr program provided to secondary school students to give them hands on experience in bricklaying to enable young people to make an informed choice to commence an apprenticeship.  

**Anglo Coal** – Callide Mine, Banana Shire Council, The Hair Shop and PCYC have kindly given up time in their busy work schedules to talk to students about their businesses/industry, what career opportunities are available, educational and personal requirements to enter different employment or training opportunities. These businesses/industry talks benefit students to increase their knowledge about training and career opportunities, improve career choices, increase self esteem and ambition and increase retention in education.  

**Anglicare CQ** – Local Community Partnerships would like to hear from businesses interested in supporting a Career and Transition program that will give young people the vital workplace exposure they need to increase their awareness of the knowledge and skills required for employment. There are numerous ways you can be involved, requiring as little or as much in the way of time, resources and /or professional expertise as you can offer. |

| Issue 9 29 May | The Rotary Careers Market is fast approaching and will be held on Tuesday July 28 between 9.30 am & 2.30 pm and all of our students will be attending this very important event at the BOLA Civic Centre. I would strongly encourage parents to also attend this public event as it will provide our students with a range of career options and also assist them in setting some realistic Career goals. Discussing career options with your child is an excellent opportunity to reinforce the benefits of a good education. I hope to see you there. |

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| Issue 10 12 June | **Anglicare CQ** (repeating news of Issue 9)  

**Apprentice & Trainee Intake:** Stanwell Corporation Ltd as host employer in partnership with the Gladstone Area Group Apprentices Scheme (GAGAL) will be advertising in the Morning Bulletin on Saturday 13 June for its 2010 Apprentice and Trainee intake in the following Areas  
- 1st Year Systems Electrician Apprentice  
- 1st Year Mechanical Fitter and Turner Apprentice  
- 1st Year Fabrication (Boilermaker) Apprentice  
- Certificate III in Business Administration  
- Certificate III in Business  
**Administration** (Record Keeping) – Information Resources Traineeship |

| Issue 11 26 June | The annual Careers Market will be held on July 28 at the BOLA Civic Centre, all students will be attending. Thank you to Anglicare LCP and Rotary for the support of this day. Parents are more than welcome to |

**Careers Market**|
attend.

Our Year 11 students begin the new term with their annual work experience block. Work Experience is an excellent opportunity for students and would not be possible without the support of the local business community and our parent body. Thank you to Mundy Mills for her work in placing all of the students.

Employers are interested in what they describe as employability skills when they decide who to employ and who to promote within their organisations. They’re not the technical skills required by an occupation they’re the skills that allow people to do their jobs well in all circumstances. For a list of Employability Skills and Personal Attributes that employers look for check out at www.careersadviseaustralia.gov.au

<table>
<thead>
<tr>
<th>Work Experience</th>
<th>Employability Skills</th>
</tr>
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</table>

Local Community Partnerships facilitated three programs: Structured Workplace Learning (SWL), Career and Transition Support (CTS) and Adopt-A-School Program (ASP). These aimed to increase the involvement of local businesses with young people in their transition through school to further education, training and employment. In issue 6, 9th April, 2009, BOLA provided students with Career Advice, Online Career Information and a Job Guide to help them with planning their future careers. In issue 9, 29th May 2009, BOLA made public information about the Careers Market, the Step-out Program, and Career and Training Opportunities. In this issue, there was news about local community partnerships which were seeking support from businesses to give young adults workplace exposure and the skills required for employment. In issue 10, 12th June 2009, the three programs were reported again for emphasis. It also covered news about the apprentice and trainee intake in six areas. In issue 11, 26th June 2009, there was a reminder about the Careers Market news. In the same issue, BOLA reported the chance for Year 11 students to have work experience, and provided a website for students to check the employability skills employers were looking for from their future employees.

The analysis of the evidence above revealed that these QMEA schools provided the young adults with varied options and opportunities to connect learning and earning in order to position themselves favourably in the increasingly divergent labour market. Learning and earning were once seen as competing for young adults’ time and psychological engagement. Young adults’ earning was said to impose major opportunity costs, drawing them away from schools. Australian and overseas research showed that “low to moderate hours of employment do not have significant effects on school completion” (Biddle, 2007, p. 182). Through their choices
regarding learning and earning, young adults can shape their post-school pathways and thereby influence their potential for future socio-economic attainment. Some research found that only some students developed “negative attitudes to work as a result of their experiences” and this depended mostly on “the type of work they had” (Biddle, 2007, p. 183). The VETiS options offered through schools have attracted young adults to engage in these activities, equipped them with skills and knowledge, created some paid work for them and possibly progressed into future employment.

However, working while at school may produce a side-effect, that is, a causal effect on academic achievement. If working students have less time to devote to activities that promote academic achievement, then working would have a negative effect on educational outcomes. It is generally agreed that “youth who work more than twenty hours per week during the school year do report fewer hours of homework and lower test scores than [those] who do not work or who limit their hours” (Staff & Mortimer, 2007, p. 2). To deal with this issue, young adults need to be guided to properly combine school, work and schoolwork to make smooth the transition from school to work and/or further education and training. But for those who are bound not to attend university, investment in employment may be “a viable alternative means of preparation for entry to the full-time workforce” (Staff & Mortimer, 2007, p. 3).

In any case, working while at school was a common activity among young adults and was considered as an integral part of their identity, as Rothstein (2007, p. 208) confirms that:

over a third of youth work at some point during tenth grade, about 60 percent work during eleventh grade, and over two thirds work during twelfth grade. Over time, enrolled youths also work more intensively. By grade twelve, employed youths average about 18 work hours per school week.

In this sense, providing the opportunities of part-time work for the young adults seemed to be necessary and important for the QMEA and its schools. It was found that students spent anywhere from a few hours to over 40 hours per week in part-time jobs on week days after school. Widespread thinking among parents and educators seemed to be that “work is good for youth” (Singh et al, 2007, np). But researchers do not agree about the effects of working on academic performance, though the
general trend of the data indicates a negative correlation between hours worked and grades. Working students tend to “take less challenging and fewer courses to maintain their GPAs [Grade Point Averages], and that teachers also lower their expectations and grading standards for these students” (Singh et al, 2007, np).

However, young adults do benefit from part-time work. Working while in school helps young adults learn “to allocate their time more efficiently, learn about workplace norms and responsibilities, and motivate them to study harder in their classes so that they can achieve a certain career goal” (Rothstein, 2007, p. 194). Time spent on working may “reduce the amount and quality of time available to students for study” (Biddle, 2007, p. 182). The time of the year when students work also makes a difference. Working during summer time had some benefits and no apparent costs (Biddle, 2007). On the bright side at least, working while at school provided skills and experiences to enable a smoother transition into the workforce after leaving school.

For young adults workplace learning is a kind of informal learning that takes place in the spaces surrounding activities and events with a more overt formal purpose. The learning taking place as part of everyday workplace activity might be equal to or even more important than learning that is formally structured at schools or classrooms since it is agreed that workers learn best on-the-job. Increasing the opportunities for young adults to engage in these activities may result in the potential for them to have a successful transition into the modern workplace and adapt to the changing labour market:

the world of work is changing and this creates a dilemma for education systems in managing preparation for changing conditions which are not clearly predictable. Recent technological change and industry re-structuring has been leading to a demand for higher skilled workers. It is predicted that by 2013 the [higher skilled] occupations will represent nearly 44% of employment (Stanley, 2007, p. 91)

This suggests the importance of higher skills in the future occupations that students would take. Among young adults who entered the labour market after high school, those who worked while in school present “lower unemployment rates and higher wages” (Dagenais and others, 2001, p. 4). These attributes of labour market pose
challenges for organisational changes in schools through VETiS. The QMEA schools promoted VETiS, including work placement as “a way of moving young people towards a future career and as a pathway into employment” (Stokes & Wyn, 2007, p. 506).

All VETiS programmes offered by QMEA schools need to ‘face both ways’ – towards the world of work and towards access to disciplinary knowledge. They also needed to be educational with respect to providing “opportunities for young adults to acquire knowledge to which they may not have access in the workplace, and which support their progress to further and higher education” (Young, 2008, p. 174). But education alone could not secure young adults the job they want.

Completion of Senior Secondary education has now become “a minimum requirement for successful entry into the labour market in Australia” (te Riele, 2007, p. 53). So it would seem not only necessary but also urgent for young adults to make preparation for the labour market while at school. Therefore, organisational changes to Senior Learning are not a substitute for schooling but supplement young adults’ learning choices. In some cases, this legitimates “already existing innovations at local, regional and State levels; in other instances it stimulated new possibilities” (Harreveld & Singh, 2008, p. 7).

PINI and BOLA provided their students with various kinds, and large amounts of information about VETiS, which, at least potentially kept their students well informed. While NOA and RICK also provided VETiS information, it was much less in terms of variety and amount.

8.3 Mentioning VETiS in public communication

NOA and RICK provided some VETiS information for their students, but there was no information about the QMEA in their school newsletters. NOA issued two newsletters with VETiS information which was about the Careers Market and Work Experience (see Table 8.7).
Table 8.7
Mentions of VETiS Information provided by NOA

<table>
<thead>
<tr>
<th>Issue/Date</th>
<th>VETIS News</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 10 4 June</td>
<td>The BOLA careers market will be held on <strong>28 July</strong> 2009. I am not intending to take classes to the BOLA Careers Market as it takes about half a day for a short visit. This year we intend taking the Yr 10s with some Yr 11s and Yr 12s to the Rockhampton Careers Market. The date for this has not been announced yet as it was postponed from the day of the strike. I would invite interested parents to take their own student to BOLA at a time that suits them to focus on the interest areas for each individual. There will be more details later so this is an early date claimer and details of intentions.</td>
<td>Careers Market</td>
</tr>
<tr>
<td>Issue 14 13 Aug</td>
<td>All Year 10s will be doing a week of work experience in the last week of this term. Parents will have the details of the program mailed home to them. Students will be given a letter of introduction to take to workplaces when applying for work experience. Students are to apply for work experience so that it takes on some real life experiences. Students can also do their work out of town, provided parents can arrange suitable transport and accommodation for their students. Year 10, 11 &amp; 12 students can do additional work experience during their holidays. Students sometimes will do additional work experience during the term if it is directed towards planned employment at the end of school. This is the last week to apply for work experience at the Anglo Coal Dawson mine for the Year 10 week or additional placements over the holidays in September.</td>
<td>Year 10 Work Experience</td>
</tr>
</tbody>
</table>

NOA released the news about the Careers Market in early June, 2009, but the market that would be held soon was not the one the school intended to attend. The target one was not available when the news was released. With regard to the work experience discussed in issue 14, 13th August, 2009, Year 10 students were offered a week of work experience. Year 10, 11 and 12 students were also encouraged to do additional work experience during their holidays.

RICK released VETiS information about Defence Talk and Work Experience at the beginning of each term in 2009 (see Table 8.8).

Table 8.8
Mentions of VETiS Information provided by RICK

<table>
<thead>
<tr>
<th>Issue/date</th>
<th>VETIS News</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 3 13 March</td>
<td>Are you interested in finding out about a career in the army, airforce or navy? The Defence Force are coming on Monday Period 1 in the library. Please see Guidance Officer, Mrs Debra Halse, if you wish to attend.</td>
<td>Defence Talk</td>
</tr>
<tr>
<td>Issue 14 18 Aug</td>
<td>Once again the success of Year 10 Work Experience Program is due to the hard work of Mrs Webb. Mrs Webb has worked tirelessly to prepare the students for their placements so students can present themselves as confident and prepared for work. Students throughout the year have been learning the skills in order to prepare them for the workplace through Certificate 1 in Work Education.</td>
<td>Year 10 Work Experience</td>
</tr>
</tbody>
</table>
Students from RICK have been placed in a variety of workplaces throughout the local district. On a work experience visit Mrs Shari visited Mary Kenman at Hillcrest Radiology. Mary has learnt about the equipment used in the Radiology Department and has developed new skills on how to communicate with patients as well as clerical skills required for the job. Mary is still considering her career options; work experience has enabled her to make a more informed decision about her career. Also visited was Lucy Newhy at Elfin House Community Childcare. Lucy enjoyed her time and her favourite room was the nursery which looked after 6 week old babies to 18 month year olds. Allan Mruck was placed at Bridge street Tyre and Mechanical Centre, one of the things he enjoyed most was learning how to align wheels. To all of our students who participated in work experience we hope you have enjoyed the experience and have now a variety of options to choose from.

RICK released news about careers in the army, airforce or navy in Issue 3, March 13, 2009. This was the only school among the seven QMEA schools which released the news about careers in the military forces. In the issue 14, 18th August, 2009, Year 10 Work Experience news was reported including the preparation for the program and the activities students attended.

These two schools provided a moderate amount of information about VETiS programs, activities and options for their students. For young adults, moderation in options and thus working hours might facilitate the continuation of schooling, as “both the ‘steady’ and ‘occasional’ high school work patterns increased the chances of post-secondary education” (Staff & Mortimer, 2007, p. 9). This is because students who work longer hours are likely to display less engagement, less motivation, and less effort to learn. They are also more likely to have “lower educational aspirations and lower grades” (Singh et al, 2007, np), because they find it “more difficult to compensate for their time spent working” (Biddle, 2007, p. 182). In Australia, it has been found that “17-year-old students who worked more than 10 hours per week were less likely to complete Year 12” (Biddle, 2007, p. 182). Hence, their schoolwork could be adversely affected. In this case, VETiS can be a complementary option for young adults.

However, vocational education has a long history of being perceived as a lower level of study and thus having lower status in education systems. Once VET courses in schools “did not carry much weight for students seeking entry into higher education, and did not necessarily assist with entry or progress through further education”
(Crump & Stanley, 2005, p. 2). This situation needs to be changed and continue to change. If these changes do not occur, VETiS students would be disadvantaged academically and socially. This is important given that those with lower levels of engagement with Senior Secondary school, and those from lower socio-economic backgrounds tend to “have higher participation rates in school VET programs” (Anlezark, Karmel & Ong, 2006, p. 18). The point here is that VETiS is “attractive to those with lower academic ability and aspirations” (Anlezark, Karmel & Ong, 2006, p. 21), because for them it is a better fit with their academic ability. Thus, reforms that enable university recognition and accreditation of VET qualifications are important (Bradley, 2008).

There is a considerable degree of streaming going on in VETiS participation, because “the effect comes from increased Year 10 to Year 11 retention, offset by a decline in the Year 11 to Year 12 retention” (Anlezark, Karmel & Ong, 2006, p. 31). Low-achieving students from poor families are obviously disadvantaged, but students from this group who were not engaged in VETiS might be the most disadvantaged of all. Their chances of gaining good jobs could be increased by participating in VETiS where they gain skills and knowledge that industries require. Participation in VETiS can have strategic benefits for students who want to enter a full-time job when they leave school. Being involved in VETiS increases the odds of getting a full-time job rather than being unemployed (Vickers, Lamb & Hinkley, 2002). Schools today need to allow students to “exercise greater agency over the activities they engage in as they navigate their way towards adulthood” (Vickers, Lamb & Hinkley, 2002, p. 8). This is because, as one interviewee, an industry representative puts it:

There is a preconceived idea that vocation education has a lesser value than tertiary sort of thing. It always amuses me and stuns me a little bit that we spend 75 per cent of our education to get 30 per cent of our kids to university. And I think that [VETiS] is the advantage with vocation education. The kids get the opportunity and know they’ve got a job future, but they also get an outcome at school. They get their year 12 certificate or their senior certificate. (Abraham, Aug 7, 2009)

The low social status of VETiS can lead to less provision by schools and hence less involvement by young adults. This is a vicious circle which needs to be broken by organisational changes in schools on one hand, and on the other by the involvement
of other organisations. The QMEA is an organisational intervention which could provide further options and opportunities for young adults to engage in VETiS.

8.4 Communication of vocationalism

The first round of evidence analysis above provides an understanding of seven QMEA schools’ value and disposition towards VETiS as revealed in their public communication. In this section, this evidence is interpreted theoretically by linking it with the concepts from the framework provided in Chapter Two.

Table 8.9 categorises VETiS and the QMEA information presented in the newsletters of the seven QMEA schools, and links them to the concept – vocationalism. To further understand these schools’ public communication about VETiS and the QMEA, it is possible to see how they legitimise values and attitudes relevant to integrating education (learning) and production (earning) (Bernstein, 1977). Their public communication about learning and earning embodies evidence of their perception and implementation of this integration.

Table 8.9
Categories of VETiS information publicly provided by QMEA schools

<table>
<thead>
<tr>
<th>News Categories</th>
<th>ALAN</th>
<th>BATER</th>
<th>VELA</th>
<th>PINI</th>
<th>BOLA</th>
<th>NOA</th>
<th>RICK</th>
</tr>
</thead>
<tbody>
<tr>
<td>QMEA</td>
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<td></td>
<td>√</td>
<td></td>
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<tr>
<td>Career market</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>SBAT</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work experience</td>
<td>√</td>
<td></td>
<td>√ x 2</td>
<td>√ x 3</td>
<td>√ x 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Try-a-trade</td>
<td>√</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Career activity</td>
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<td></td>
<td>√</td>
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<tr>
<td>Career program</td>
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<td>√</td>
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<tr>
<td>Award</td>
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<td>√</td>
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<td>Service</td>
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<td>√</td>
<td>√ x 3</td>
</tr>
<tr>
<td>Certification</td>
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<td></td>
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<tr>
<td>Partnership</td>
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<td>√</td>
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<tr>
<td>Career education</td>
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<td></td>
<td></td>
<td>√</td>
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<tr>
<td>Blue Card Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulltime apprenticeship</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Pathway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
</tr>
</tbody>
</table>

The relationship between learning and earning in terms of separation versus integration changes with the times, the context and the development of economy.
The key relationship is the power of the classification between these two categories. Bernstein (1977, p. 188) argues that “where this classification is strong, then the principles, contexts and possibilities of education [learning] are not integrated with the context, processes and possibilities of production [earning]”. When the classification is weak, the integration occurs. The regulation of education and production might fortify the relative autonomy of education, that is its relative independence from production. The correspondence between the dominant code of education and the dominant code of production is symbolised by the organisational relationship between education and production (Bernstein, 1977). In the newsletters of the QMEA schools, learning and earning were separated in form and presentation but integrated in management and implementation since VETiS is organised through integration in the school curriculum.

Senior Secondary schooling has long been relatively autonomous in constituting its educational codes, including that expressed in its public communication. Bernstein (1977, p. 180) defines a code as “a regulative principle, tacitly acquired, which integrates relevant meanings, the form of their realisation and their evoking contexts”. When a code changes, as in Queensland’s VETiS reforms, relevant meanings, appropriate realisations and evoking context may also change, but not necessarily at the same rate, and not always in the same direction. These changes are shaped by the changing organisational relationships, values of classification and the principle which regulate the process of transmission and acquisition. If the principle varies, the form and content of the organisational relationship may change accordingly.

VETiS was once considered “a vehicle for moral regeneration, as pedagogical reform, and as preparation for the workplace in the new industrial society” (Kliebard, 1999, p. 8). It was not regarded as being against cultural education, but as part of general education and being integrated into cultural education. VETiS was claimed to broaden the knowledge of the principles of the trade and the skills as well. Because Senior Secondary schools were seen to be failing to meet the needs of some students, VETiS was developed by Government on the promise of supplementing the capacities of young adults with work-related training, in case they took the jobs which did not have much chance for progression. Therefore, VETiS needs to be enhanced and traditional Senior Secondary schooling needs to be supplemented.
Australian Governments agreed in principle that Years 10-12 were the appropriate time for VETiS because these were the years when some young adults were involved in “idleness and evil associations, when so many form bad habits which not seldom remain with them through life” (National Association of Manufacturers cited in Kliebard, 1999, p. 31). So, if they can be attracted to engage in VETiS, the chances of leaving school early was expected to be reduced and the opportunities for better transition from school to employment were expected to increase. However, in some QMEA schools, there still exists a view that Senior Secondary schools are not for the purpose of trade training. The schools are not established for the purpose of teaching students how to make a living but to teach them how to live; they are not to teach trades, but to enhance a desire for education (Kliebard, 1999, p. 68).

This idea may explain why some QMEA schools did not provide much VETiS information in their school newsletters, and that it may not be encouraged in these QMEA schools. What is at issue here is that a wall has been erected “between academic and vocational studies, between the theoretical and the practical, between thinking and doing” (Kliebard, 1999, p. 233). This produces a dilemma whereby many vocational students are being denied reasonable access to the intellectual resources of their culture, while students on the academic side of the curriculum are being denied the opportunity to experience the integral connection between thought and action. This is especially so where VETiS is organised to be “sharply distinguishable from the academic program” (Kliebard, 1999, p. 104). However, many VETiS courses in the QMEA schools allowed more organisational flexibility to meet the desires of individual students. In this sense, the academic side of the curriculum of the QMEA schools was not absolutely dominant, as vocationalism increasingly became “the controlling purpose of schooling and an educational ideal that derived from the application of the precepts and demands of business and industry” (Kliebard, 1999, p. 121). VETiS has drawn inspiration from the new twenty-first century workplace, representing an educational ideal tied to occupational competence. So, if the study of academic subjects is a form of specialised preparation for the professions, the training for skilled labour now claims the same status by taking an important place in curriculum organisation of QMEA schools. In the past young adults were regarded as ‘raw material’, so it made sense “to determine as
scientifically as possible exactly what the raw material was good for” (Kliebard, 1999, p. 163). The idea then was to classify the young adults in terms of their predicted social and occupational roles, and then train them directly for successful performance in those roles. This had to be supplemented with a critical support by a curriculum deliberately designed to facilitate it, such as combining job training with actual work experience and to coordinate schoolwork with actual job experiences.

However, the problem with VETiS is that it can become an instrument of continuing unchanged existing order of society rather than operating as a means of its transformation (Dewey, 2002). The question of whether VETiS actually provides the skills and knowledge needed in the modern workplace remained unresolved even today. From the history of vocationalism it seems that from the “accomplishments and disappointments of vocational education and the value of schooling in occupational achievement” (Kliebard, 1999, p. 211), no single factor is decisive. Even so, work with its stresses and constraints as well as its compensations, shapes lives and destinies of young adults. Its relevance to schooling is to secure a smooth transition to the workplace, since schools have a responsibility to “create an idealised social community” (Kliebard, 1999, p. 236).

8.5 Conclusion

This Chapter shows the analysis of an important aspect of this exploratory case study of organisational change, the public communications used about VETiS and the QMEA amongst the QMEA schools. Their published newsletters provided the data for analysis. The communication between QMEA schools and beyond via school newsletters indicated that they presented different news about VETiS and the QMEA to students, parents and the public. Some QMEA schools provided a variety of VETiS information in their newsletters while others only made a brief mention of it. Some QMEA schools repeatedly emphasised career activities or particular VETiS programs. All this evidence indicates these schools’ disposition towards, and provision of VETiS, and their involvement in the QMEA. Organising students’ learning and earning simultaneously requires schools to be both innovative and creative to bring this into reality. The evidence analysed in this Chapter reveals that
there is a degree of integration between the QMEA and at least some of its schools in so far as some schools explicitly claimed to be part of the QMEA as well as providing information about QMEA related activities and programs. This shows that the ‘hub-and-spoke model’ has certain impacts on the public communication of some QMEA schools. However, these two parties still exist largely as separate entities, at least in terms of public communications produced by QMEA schools. If the hub-and-spoke organisational mode is seen as a viable and desirable means, then further integration is needed to fortify the QMEA.

There appears to be a dilemma when talking about organisational changes whose purpose it is to improve learning and earning. This is because there is an increasing mismatch between formal educational policy and what was likely to occur at the school level, as the evidence analysed in this Chapter indicates. Schools’ disposition towards learning and earning directly influences students’ outlook and opportunities. The school newsletters analysed in this Chapter are a case in point. Among other factors, students’ choices of post-school pathways may be influenced by schools’ public communications. What are the post-school destinations of students from QMEA schools? The next Chapter analyses evidence concerning this issue.
CHAPTER NINE
ORGANISING STUDENTS’ PATHWAYS – YEAR 12 STUDENTS’
MAIN POST-SCHOOL DESTINATIONS

9.0 Introduction

VETiS has become a popular practice in Senior Schooling throughout Australia. It can offer young adults more choices for post-school pathways and has a positive effect on young adults’ transition from school to work and/or further education and training. The existence of VETiS options is a factor in young adults’ decision to stay at school. That young adults gained benefits from participating in VETiS, is a good starting point for further organisational changes in Senior Learning through VETiS. What changes have occurred in students’ choices in immediate post-school destinations from 2008 through 2009 to 2010? This Chapter focuses on the analysis of Year 12 students’ main post-school destinations during the period of 2008-2010. The reason of including data drawn from 2010 is that when I first undertook this analysis, I found that the evidence about students’ main post-school destinations for 2008 and 2009 was not adequate for investigating the changes in organising student pathways. In addition, I wonder whether the global financial crisis has an influence on student outcomes.

This analysis is based on the findings of the Queensland Government Next Step survey (Queensland 2008b, 2009, 2010), an annual survey targeted at all students who completed Year 12 and gained a Senior Statement each year, irrespective of whether they attended a Government, Catholic or independent school, or a TAFE college. The Office of the Government Statistician conducted these surveys between March and May each year, approximately six months after the young adults left school. Responses were predominantly collected via computer assisted telephone interview with paper-based surveys being collected from a small number of students for whom telephone details were not available. Not all the Year 12 completers responded to the survey (see Table 9.1). The survey results were compiled and reported by the Next Step team in the Department of Education and Training. The pathways of Year 12 completers were categorised into ten main destinations. As
most young people were combining study and work, all Year 12 completers are
categorised into one of these ten main post-school destinations, be it study or work.

Table 9.1  
Population of Year 12 completers and respondents of survey  
at each QMEA school

<table>
<thead>
<tr>
<th>School</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of Respondents</td>
<td>No of Y 12 completers</td>
<td>No of Respondents</td>
</tr>
<tr>
<td>PINI</td>
<td>n/a</td>
<td>n/a</td>
<td>99</td>
</tr>
<tr>
<td>KAN</td>
<td>232</td>
<td>310</td>
<td>217</td>
</tr>
<tr>
<td>LONY</td>
<td>12</td>
<td>21</td>
<td>13</td>
</tr>
<tr>
<td>MARO</td>
<td>65</td>
<td>79</td>
<td>63</td>
</tr>
<tr>
<td>PEER</td>
<td>96</td>
<td>117</td>
<td>98</td>
</tr>
<tr>
<td>DASY</td>
<td>24</td>
<td>26</td>
<td>11</td>
</tr>
<tr>
<td>MERA</td>
<td>70</td>
<td>83</td>
<td>87</td>
</tr>
<tr>
<td>BATER</td>
<td>39</td>
<td>47</td>
<td>40</td>
</tr>
<tr>
<td>BOLA</td>
<td>68</td>
<td>75</td>
<td>60</td>
</tr>
<tr>
<td>RICK</td>
<td>112</td>
<td>136</td>
<td>108</td>
</tr>
<tr>
<td>TOAL</td>
<td>112</td>
<td>132</td>
<td>102</td>
</tr>
<tr>
<td>NOA</td>
<td>19</td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td>NANA</td>
<td>71</td>
<td>90</td>
<td>61</td>
</tr>
<tr>
<td>BAMA</td>
<td>79</td>
<td>96</td>
<td>78</td>
</tr>
<tr>
<td>VELA</td>
<td>194</td>
<td>230</td>
<td>215</td>
</tr>
<tr>
<td>ALAN</td>
<td>191</td>
<td>213</td>
<td>215</td>
</tr>
</tbody>
</table>

The purpose for analysing this evidence was to investigate what percentage of young adults in these schools were bound to enter university; what percentage of them chose other pathways; how many of them obtained Certificates on completing Year 12; and what organisational changes occurred in each aspect between 2008 and 2010. These analyses provide important information about organisational changes with respect to planning a curriculum that is responsive to diverse needs of students, school timetabling, the venues for education and teacher professional development. However, not all QMEA schools provided all the relevant information. Some QMEA schools did not provide analysable information about the main post-school destination in the Next Step survey. Other QMEA schools did not use the template to provide the related information. This made the analysis of the post-school destinations of all these QMEA schools impossible. Only those QMEA schools which offered analysable information were selected for analysis to ascertain the organisational changes in students’ post-school choices and pathway trends across the three years. Details of the pathways for each individual year (2008, 2009 and 2010) are provided in Appendix 9. The analysis of the evidence presented in this
Chapter centres on students’ learning, earning or not learning nor earning at twelve QMEA schools over the three years.

In the field of education research it seems critical discourse analysis is widely advocated. Contrary to this popular position, I adopted analytical procedures which agreed with the nature of my research questions propounded, the data I had to analyse, and my desire to try new approaches to data analysis. The ‘hub-and-spoke’ organisational mode is exemplified in this Chapter from the perspective of student outcomes and preferred pathways. As in the previous Chapters, the data analysis in this evidentiary Chapter is organised to present a First Cycle analysis (evidentiary-commentary analysis) and then a Second Cycle (theoretical analysis) (Saldaña, 2009, p. 45). During the First Cycle the data were divided into subcategories and an evidentiary profile developed according to the themes that appear. As in previous Chapters, these subcategories were elaborated with regard to the data that is actually analysed, using an inductive style. The “abstracting, conceptualising, and theory building” (Saldaña, 2009, p. 45) were undertaken during the Second Cycle of data analysis.

9.1 Changes in organising students’ pathways in each QMEA school

In this section, the organisational changes of each QMEA school are analysed with respect to pathways to university, Certificates IV, III, I-II, apprenticeships, traineeships, working full-time, working part-time, seeking work, not studying nor working (NSNW), and VET total from 2008 to 2010. This provides a basis for exploring the potential benefits of the organisational changes in each of the QMEA schools.
The most common destination for KAN students from 2008 through to 2010 was university, increasing from 22.4% (2008) through to 24% (2009) and to 28.2% (06, 2010). Major changes occurred in the students’ choice of working full-time. In 2008, 25.4% of the young adults chose to work full-time, but in the following year, only 11.5% of the young adults preferred this choice, although in 2010 the percentage increased a little (16%). With the number of young adults working full-time decreasing, working part-time seemed to be a preference, with the percentage increasing from 13.8% (2008) to 21.7% and 21.8% in 2009 and 2010 respectively. The percentage of young adults seeking work went up from 6.5% (2008) to 14.3% (2009), and then dropped to 12.6% (2010). The number of students, who were either not studying nor in the workforce, remained stable. In 2008 and 2009, 5.2% and 5.1% of the students sought Certificate IV when they completed Year 12, but in 2010, only 1.9% of the young adults preferred to do this Certificate. The number of students who preferred to be apprentices or trainees dropped year by year. In 2008, 9.1% of the students were trainees, but in 2009, it was 4.1% and in 2010, 2.4%. The VET total dropped from 48.4% in 2008 to 30.5% in 2009 and 31% in 2010.
From 2008 through to 2010, the most common study destination was apprenticeships (30.8%, 31.7% and 32.8%), increasing slightly year by year. However, traineeships decreased from 18.5% (2008) through to 14.3% (2009) to 6.3% (2010), that is a decrease of two thirds. The students who entered degree-level programs at university increased in 2010 by nearly 7%. In 2008, more students chose to work full-time, but in 2010, more students had to work part-time. There were no substantial changes in the number of students seeking work across the three years, and no students were NSNW in 2010. In terms of certification, no students chose to do a Certificate IV in 2010; the number of students seeking Certificate III kept steady but there was a decrease in the percent doing a Certificate I-II. Hence, the VET total dropped from 56.9% in 2008 to 55.6% in 2009 to 43.8%, that is a drop of 13%. The situation was different in PEER.
Figure 9.3
PEER students’ main post-school destinations (2008-2010)

The common post-school destinations for PEER students were university and working either full-time or part-time. In 2008, the percentage of students going to university (19.8%), becoming apprentices (18.8%), and working full-time (17.7%) was similar. Changes occurred in 2009, in which fewer students chose to go to university or work as apprentices even though relatively more students chose to do a Certificate IV or III. Many more students had to work part-time, nearly one third of the total number, but there was a slight increase in the number of working full-time. In 2010, the trend was a little different. The percentage of students going to university, becoming apprentices and seeking work was higher than those in 2009 but lower than those in 2008. Working full-time remained relatively steady but working part-time changed dramatically from 12.5% (2008), through to 29.6% (2009) to 22.1% (2010). No students were not working nor in the workforce in 2010. In terms of certification, more students preferred a Certificate IV or III in 2008 and 2009 than 2010, but more did a Certificate IV or I-II in 2010. There was no substantial change in the VET total, but it tended to come down.
For MERA students, the most common destination between 2008 and 2010 was working full-time (38.6%, 27.6% and 29.7% respectively), decreasing by 10%. But the number of students working part-time or seeking work went up and the number of students being trainees and the VET total went down. In certification, no student undertook a Certificate IV in 2008 or a Certificate III in 2009. Students going to university dropped from 13.8% in 2009 to 4.1% in 2010. Interestingly, the actual number of students choosing to go to university, seeking Certificate IV, III and I-II, and NSNW was exactly the same in 2010. In the same year fewer students went to university, but more students either worked full-time or part-time. But BATER presented a different picture.
From 2008 through to 2010 the most common study destination for BATER students was apprenticeships (25.6%, 30%, and 25.5% respectively). The trend to work full-time went up regularly while working part-time went down over the three years. More students chose to be apprentices in 2009, yet the percentage was similar in both 2008 and 2010. Fewer students preferred to be trainees in 2009, compared with those in 2008 and 2010. Also in 2009, the number of students being trainees, working part-time and seeking work was the same (12.5%). In terms of certification, there was almost no change in the percentage of students undertaking a Certificate IV, a slight change in Certificate I-II over three years, but no students chose to do a Certificate III in either 2009 or 2010. The percentage of students preferring to go to university dropped in 2009 but went up in 2010. For these three years, no students of BATER were NSNW. The VET total changed slightly, with the lowest in 2010. Again different situation occurred in BOLA.

The most common pathways for BOLA students over the period of 2008-2010 were university and working full-time even though the tendency rose for the former but fell for the latter. Apparently, in 2009 more students preferred to go to university, work full-time or part-time while no students sought a Certificate IV. Comparatively, in 2008, more students chose to be apprentices or work full-time, and no one was NSNW. In 2009, 15% of the students were seeking work six months after they
finished Year 12. The VET total for 2009 was also the lowest of the three years, being only half the percentage it was in 2008. In 2010 it rose again.

The most common pathways for RICK students were university and working part-time. In 2008, more students preferred to go to university, work full-time or part-time. In 2009 and 2010, most students chose to go to university or work part-time. In these three years, not many students liked to be apprentices and trainees. Students who preferred to do a Certificate IV or I-II increased gradually from 2008 to 2010, but in 2009 more undertook a Certificate III than in the other two years. No students were NSNW in 2010, and the change for VET total was slight. It was the similar case in TOAL.

Figure 9.7
RICK students’ main post-school destinations (2008-2010)

Figure 9.8
TOAL students’ main post-school destinations (2008-2010)
The most common pathways for TOAL students were working part-time which increased each year, and university which remained relatively steady. There were changes in apprenticeships and traineeships. In 2009, 7.8% of the students chose to be apprentices, and this was the lowest for the three years (15.2% in 2008 and 17.4% in 2010). Likewise in 2009 13.7% of the students preferred to be trainees, which was the highest percentage over the three years. The percentage of students going to university and seeking work remained steady. Fewer students preferred to do Certificates IV and III from 2008 through to 2010. In 2008, no students were NSNW, and the VET total varied slightly across the three years. A similar case occurred in NANA.

Figure 9.9
NANA students’ main post-school destinations (2008-2010)

The most common pathways over 2008-2010 for NANA students were working part-time which kept going up, and university which increased. In 2008, 26.8% of the students chose to work full-time, but the percentage dropped substantially to 14.8% (2009) and 13.9% (2010). Comparatively, more students preferred to be apprentices than trainees. Very few students undertook a Certificate IV (2.8%) in 2008 while no students sought it in either 2009 or 2010. More students preferred a Certificate I-II than a Certificate III. For VET total, it dropped in 2009 but went up in 2010. What were the features for post-school destinations of BAMA?
The most common pathway for BAMA students over the period of 2008-2010 was seeking work, and the next common pathway over these years was working part-time or going to university. The salient feature for BAMA is that there were not great changes in each pathway, but the tendency was different. The number of students choosing to go to university, being trainees and working full-time dropped, while the percentage of students working part-time remained stable. The number of students seeking work increased much in both 2009 and 2010, which comprised the highest percentage in destination. This means that in 2009 and 2010, the largest percentage of young adults were in the process of seeking work. Relatively speaking, more students undertook a Certificate IV than those doing other Certificates in 2008, but the number tended to be even in the following two years. No students were in NSNW in 2008, but in the other two years, there were a few. Overall, the VET total for BAMA dropped a little over these three years. VELA demonstrated a strong university orientation in its post-school destinations.
The most common pathway for VELA students was university, which increased steadily from 2008 to 2010. In each year, over one third of VELA students preferred to go to university. More students undertook a Certificate IV than doing other Certificates, all tended to rise over time. In 2008, 24.7% of VELA students worked full-time but the percentage dropped substantially to 8.5% in 2010. The percentage of students working part-time and being apprentices was relatively steady over this period. The percentage of students becoming trainees and seeking work was higher in 2009 than in the other two years. Each year a few students were NSNW. VET total differed only slightly across the three years. A different feature characterised ALAN’s post-school destinations.

Figure 9.11
VELA students’ main post-school destinations (2008-2010)

Figure 9.12
ALAN students’ main post-school destinations (2008-2010)
The most common pathways for ALAN students were university and working part-time. In 2008, more students chose to go to university than work part-time, while in the following two years, the percentage tended to be equal. The percentage of students preferring to work full-time in 2008 was 20.9%, but it dropped to about 12% in the following two years while the students seeking work increased at the same time. Many students preferred to undertake a Certificate IV during these three years, especially in 2010 than those who chose to do the other Certificates, and more students preferred to be apprentices than trainees. No students were NSNW in 2010. The VET total was relatively high and even across this period.

The analysis of the evidence above shows that in five out of the twelve QMEA schools, the most common pathway was university for these three years, but in another five schools it was working part-time. In some QMEA schools, there are a number of students seeking work. There were also some young adults who were not studying nor in the workforce.

Young adults plan their pathways in different ways depending on their goals, resources, and opportunities. Some of them limit their hours of work during high school, but others tend to pursue more intensive work patterns (Staff & Mortimer, 2007). For most high school young adults, the effective combination of learning and earning is a familiar pattern by the time they complete Year 12. Even after they go to university, most of them have to maintain employment to at least partially cover their educational and living expenses, and this is especially the case for young adults whose families have limited economic resources.

The conception of student transition is built on the idea of “a forward momentum that carries individuals from the status of student (immaturity) to vocation (maturity)” (Stokes & Wyn, 2007, p. 498). The linearity of this process and its direction tends to be over-emphasised. The assumption of linear movement from one dimension (study) to another (work) assumes that learning and earning are different and dichotomous fields and that learning occurs at a set time and within a site that is distinctive from work. In practice, learning and earning are now interrelated in young adults’ lives.
Learning can occur in many different sites, including workplaces and is often “conterminous with employment” (Stokes & Wyn, 2007, p. 498) in the lives of young adults. Stokes and Wys (2007, p. 498) suggest rejecting this concept of linearity to “take a very broad approach to the relationship between study outcomes and employment destinations”, one that challenges the disjuncture between fields of study or areas of qualification and occupation.

Based on the analysis of the Longitudinal Survey of Australian Youth data, it was found that “school VET programs provide a clear pathway for some students” (Woods, 2007, p. 7). However, there was also a mismatch between the VET courses and programs which students undertook at school, and those which they studied after school. Linking VET programs with schools and the world of work seems to result in a smoother transition to work, particularly for young adults who did not go on to university. What is more, school VET programs tend to have a positive impact on influencing young adults to remain at school to complete Year 12. It has also been found that “strong achievements in literacy and numeracy, holding a part-time job while at secondary school, and participating in VET at school [can] help [students] to

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89 The Longitudinal Surveys of Australian Youth (LSAY) track young people as they move from school into further study, work and other destinations. It uses large, nationally representative samples of young people to collect information about education and training, work, and social development.

Survey participants (collectively known as a 'cohort') enter the study when they turn 15 years, or as was the case in earlier studies, when they were in Year 9. Individuals are contacted once a year for 10 years. Studies began in 1995 (Y95 cohort), 1998 (Y98 cohort), 2003 (Y03 cohort), 2006 (Y06 cohort) and more recently in 2009 (Y09 cohort). Since 2003, the initial survey wave has been integrated with the Organisation for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA). Over 10,000 students start out in each cohort.

LSAY provides a rich source of information to help better understand young people and their transitions from school to post-school destinations, as well as exploring social outcomes, such as wellbeing.

Information collected as part of LSAY covers a wide range of school and post-school topics, including: student achievement, student aspirations, school retention, social background, attitudes to school, work experiences and what students are doing when they leave school. This includes vocational and higher education, employment, job seeking activity, and satisfaction with various aspects of their lives.

LSAY is managed and funded by the Australian Government Department of Education, Employment and Workplace Relations (DEEWR), with support from state and territory governments. On 1 July 2007, the National Centre for Vocational Education Research (NCVER) was contracted to provide analytical and reporting services for LSAY. NCVER is undertaking this service for the Department in collaboration with the Australian National University's Social Policy Evaluation, Analysis and Research Centre (SPEAR).
obtain full-time employment” (Stanley, 2007, p. 97). Thus, VETiS does help young adults make a successful and better post-school transition.

Following the analysis of evidence of students’ main post-school destinations for each QMEA school, in the next sections, students’ learning, earning, l/earning and related issues are investigated respectively.

**9.2 Changes in organising young adults’ learning pathways of QMEA schools**

This section focuses on students’ education and training destinations in terms of University, Certification, Apprenticeship and Traineeship destinations and compares with those for the State of Queensland about what organisational changes occurred across twelve QMEA schools during the period 2008-2010. With reference to the percentage of students going to university in 2008, 2009 and 2010, all the twelve QMEA schools varied but most of them kept relatively steady.

Young adults are now “enrolled ‘with’ but not required to learn ‘at’ schools” (Harreveld & Singh, 2008, p. 7). They may undertake school–based apprenticeships or traineeships, tertiary/university link courses, cultural activities or approved community projects. Multiple learning providers offer a wider choice of what is considered as useful learning for inclusion in the new Queensland Certificate of Education. This expands learning options for young adults.

Among these QMEA schools, KAN and VELA had an increasing percentage of students preferring to go to university over these three years. In 2010, 38.2% of VELA students went to university, which was the highest percentage of any QMEA school and nearly 10 times to that of MERA. KAN had 28.2% of its students choosing university as their immediate post-school destination. More students in six QMEA schools – KAN, MERA, BOLA, TOAL, NANA and VELA – chose to go to university in 2009 than in 2008, with NANA having the biggest difference, 14.1% in 2008 and 23% in 2009. The others produced the opposite results, with fewer students choosing to go to university during this same period. The percentage of students going to university in PEER dropped from 19.8% in 2008 to 14.3% in 2009; in BATER from 12.8% to 7.5%, and in ALAN from 30.9% to 24.7% (see Figure 9.13).
In 2008 and 2009, the percentage of students from twelve QMEA schools going to university was lower than that of the Queensland State. In 2010, the percentage of VELA students going to university was higher than that of the Queensland State, but the other eleven QMEA schools continued to see a lower percentage, some even much lower than the previous years. A possible explanation for these changes may be changeable educational and economic environments during these years.

Of twelve QMEA schools, more students from BAMA, 10.1% (2008), 6.4% (2009), 8.2% (2010); VELA, 5.7% (2008), 6.5% (2009), 10.1% (2010); and of ALAN, 8.4% (2008), 9.3% (2009), 13% (2010), undertook a Certificate IV after completing Y12. But in NANA in both 2009 and 2010, no students finished their Senior Learning by doing a Certificate IV. This was the same for the students of MARO in 2010, MERA in 2008 and BOLA in 2009. 5.2% and 5.1% of the young adults of KAN undertook a Certificate IV in both 2008 and 2009, about 4.1% of PEER students sought this Certificate in both 2009 and 2010, and the same percentage of MERA students did so in 2010. Compared with the Queensland State three QMEA schools saw a higher percentage of students seek a Certificate IV after completing Senior Learning during these three years. All the other QMEA schools saw a much lower percentage. Some QMEA schools in a certain year had no students completing Year 12 to seek a Certificate IV (see Figure 9.14).
Compared to Certificate IV, relatively more students went on to study a Certificate III course when they completed Year 12. More students at BAMA elected to study this Certificate, especially in 2009 (6.4%) and 2010 (5.9%). Like Certificate IV, no students at BATER went on to study a Certificate III in both 2009 and 2010 when they finished their Senior Learning. At MERA, in 2009 no students left school to undertake a Certificate III. For the other schools, more students from PEER and RICK elected to study a Certificate III in 2009, with fewer students from BOLA, TOAL and NANA doing so that year. The rest of the QMEA schools kept the percentage more or less steady. Nine out of the twelve QMEA schools saw a higher percentage of students undertaking a Certificate III than that of the Queensland State in 2008, five in 2009, and seven in 2010 (see Figure 9.15).
From 2008 through to 2010, all twelve QMEA schools had some of their Year 12 students elect to undertake a Certificate I-II after completing their Senior. In 2008, more graduating students at BOLA, TOAL and NANA elected to enrol in one of these Certificate courses. In 2009, more students at NANA and TOAL elected to do so. In 2010, there were some students at BOLA, RICK, NANA and BAMA who finished their Senior Learning to undertake a Certificate I-II. There were substantial changes at BOLA and TOAL. Fewer students (1.7%) pursued these Certificates in 2009 but in the next year, 8.7% of the students elected these, which was a four-fold increase. But at TOAL, it was just the opposite. About 6% of students elected this pathway in 2008 and 2009, but the percentage doing so dropped to 0.8% in 2010. Five out of the twelve QMEA schools had a higher percentage of students pursuing a Certificate I-II as a post-school destination than that of the Queensland State in 2008, nine schools in 2009, and six schools in 2010 (see Figure 9.16).
9.2.1 Advantages and disadvantages of VETiS

The evidence analysed above suggests that fewer students in these twelve QMEA schools went to university than that in the Queensland State, but more students preferred to become apprentices and trainees, or pursued Certificates after completing Year 12. Most students made a successful transition from school to further education, training or full-time work. This is where successful post-school transition is taken to mean “full-time post-school engagement with employment or learning, or part-time work combined with part-time study” (Anlezark, Karmel & Ong, 2006, p. 33). The evidence indicates that less than one third of QMEA school graduates chose to go to university each year. Some QMEA schools had a much lower percentage which means most of their young adults choose other pathways rather than going to university. The evidence concerning the pursuit of Certificates revealed that young adults from QMEA schools gained benefits from participating in VETiS. Moreover, successful completion of VETiS courses meant they were on trade for gaining accreditation of these studies for entry to university. However, given that many VETiS students were regarded as low achievers at Year 10 (Stanley, 2007), the differences in post-school destination were worth considering. Of young adults remaining at school past Year 10, they usually follow two main post-school study pathways, that is, “the more academic students go on to university, and the less
For young adults from QMEA schools, the attractiveness of school VET programs is that “they provide an alternative to the traditional pathway to university” (Anlezark, Karmel & Ong, 2006, p. 13). Some students take VETiS subjects as part of the Queensland Certificate of Education, with some using them “as a ‘taster’ of vocational education and training” (Anlezark, Karmel & Ong, 2006, p. 13). Engaging in VETiS while at school seems to increase the chances of gaining an apprenticeship or a full-time job rather than being unemployed, depending on labour market conditions and economic circumstances.

Another advantage is that “the option of a VETiS subject [influences] their decision to stay on at school until Year 12” (Stanley, 2007, p. 97). Given that for some students the existence of VETiS options was a factor in their staying on at school one might expect that such students would use VETiS as a route to post-school destination in the VET sector, albeit with future options for higher education.

Young adults who participate in VETiS programs tend to be from low socio-economic backgrounds, low-achieving students, and those residing in rural areas (Dalley-Trim, Alloway, Patterson & Walker, 2007). A very small percentage of high academic achievers take part in these programs. Together this suggests that VETiS programs seem to be for academically, geographically, economically and socially disadvantaged young adults. The evidence above indicates that location is a key factor for students in the QMEA schools. These students are usually less likely to apply to universities. Is this an effect of these programs? Klee (cited in Dalley-Trim, Alloway, Patterson & Walker, 2007, p. 29) argues that “if VET is perceived as a dumping ground for academic failures and delivered as such … then it is doomed”. The constituency for VETiS is now complicated. VETiS is not only the province of students from lower socio-economic backgrounds and lower academic ability, but it has also acquired broader appeal. It has been noted that “some university-bound students enrol in school-based traineeships to improve their part-time job prospects, while supporting themselves through university” (Smith, 2004, p. 572). Some students who plan to attend university also participate in school VET programs “for
the bonus marks they bring to their tertiary scores, and for the opportunities they provide in gaining work while going on to further study” (Anlezark, Karmel & Ong, 2006, p. 17).

A drawback for VETiS is that some industry bodies argue that “a VET qualification gained at school is not on a par with a VET qualification gained at TAFE or another RTO, especially when compared with a qualification gained in conjunction with working in the occupational area” (Smith, 2004, p. 573). That VET in schools is of lower quality than other VET may not be unsubstantiated, so attention needs to focus on the quality of VET in schools, especially in terms of compliance with the Australian Quality Training Framework (AQTF). However, some other industries regarded the pathway afforded by VET in schools as useful, especially for recruiting ground for occupations that are traditionally hard to fill with good quality applicants (Smith, 2004).

Proportionally, more of the young adults who participate in school VET programs go on to undertake more post-school VET studies than students who chose not to participate in these programs (Anlezark, Karmel & Ong, 2006). After completing Year 12 school VET participants tend to have a much easier transition than their peers who leave school after completing Year 12 without undertaking school VET programs.

In a broader context, school VET programs which show the most advantageous options are those which “qualify young people for tertiary study as well as for work” (OECD cited in Anlezark, Karmel & Ong, 2006, p. 17). It follows that school VET programs are helpful and profitable not only to non-academic young adults, but to all. Then what elements prevent VETiS from growing?

9.2.2 Factors affecting VETiS growth

The growth of VETiS is the result of a number of factors, including Government policies directed at increasing school retention rates, concerns about the employability of school-leavers and to the promotion of the VET sector in an attempt to lift the skill level in the economy (Action Group & Ministerial Council, nd). This
growth has embedded VET firmly into the curriculum of many schools. However, as the evidence above indicates the mainstreaming of VET is not quite complete; this is a problem where it is seen as “an added extra or a second rate option for less capable students” (House of Representatives Standing Committee on Education and Training cited in Smith, 2004, p. 574).

The VET choices of young adults are greatly influenced by career advisors of their schools, like it is discussed in teacher professional learning. They are the key persons who lead young adults to VET or away from it. Their positive attitude towards VET can affect the advice they give young adults about the merits of such programs, with their advice differing for different students, dividing students into academic and non-academic (Dalley-Trim, Alloway, Patterson & Walker, 2007). They advise academic students to take VET subjects in order “to gain an advantage over their fellow academically-oriented peers and to get some relief from the serious and rigorous work of academic studies” (Dalley-Trim, Alloway, Patterson & Walker, 2007, p. 31). In contrast, the undertaking of VET subjects was presented as the ‘only’ option to non-academic students. However, Stanley (2007, p. 97) finds that “nearly 16% of the VET sample who were in the labour force had done a work placement with their current employer while at school”. This may make the young adults value VET and its associated work placement, which might be a possible way out of the education/work dilemma. Ng and Feldman (2007, p. 119) suggest that by equipping young adults with work-related skills and knowledge, VET programs “directly promote a high level of work role identification, which in turn positively influences school-to-work transition (STWT) success”.

In addition to school career advisers, parents were believed to be one of the most prominent influences affecting the VET choice of young adults. The QMEA newsletter recognises that parents are influential so QMEA schools devote much energy to informing them about what Years 11 and 12 offers, especially in VET, though this can be “a losing battle” (Crump & Stanley, 2005, p. 12), as one interviewee explained:

We do, from time to time, have a number of students that do have a regular work placement. Obviously the parents – there’s a lot of negotiation with the parents, and provided that the parents are
comfortable with it, and happy with that, well, then we’ll try and accommodate that. (David, Deputy Principal, August 5, 2009)

Of the parents, mothers are usually the persons who are difficult to negotiate for VETiS for female students in particular:

And to come back to our conversation earlier about the parental influence. The mother has a great deal of influence. A lot of the mothers don’t want their girls to do these kinds of jobs, and the influence is enormous from the parents, particularly the mother. (Jean, Partnership Manager, August 4, 2009)

Parents influence students’ choice of VETiS.

So sometimes kids don’t make the choice themselves, the parents do. The other thing that they’re the hardest group to get to, parents. The most difficult to convince. Getting through to them and throwing their old fashioned values away and getting through to them about letting kids make their own choices. Informed choices. Kids need to make informed choices, but parents can have the influence and push them sometimes into VET and sometimes – more often than not, away. (Jane, Industry Representative, August 4, 2009)

Work placements for young adults work well when there is a third party, such as the QMEA operating alongside schools and employers (Smith, 2004). If there is a tendency for students to do better in their VETiS subjects than in the more academic courses, this is a desirable outcome from the point of view of them securing a pathway-to-employment in a specific industry. The issue here is whether QMEA students saw this as a viable pathway to follow, or whether pathways are becoming less linear as work changes, for instance where employment becomes a part-time occupation. The smoothness of this transition varies depending on “student demographics and the nature of the VET program undertaken” (Woods, 2007, p. 8), as well as macro-economic conditions.

In sum, the transition from school to work is the first of numerous work-related transitions throughout a person’s life. As such, it helps set the pattern for how individuals locate the need for changes and implement those changes under conditions of uncertainty and complexity. What would be produced if learning and earning were integrated through VETiS? The next section deals with this issue.
9.3 Changes in organising students’ learning pathways

The evidence (see Figure 9.14 and 9.15) concerning the pursuit of apprenticeships and traineeships demonstrate that young adults from QMEA schools seem to have benefits from participating in VETiS.

![Figure 9.17](image)

**Figure 9.17**
Apprenticeship post-school destination of students from twelve QMEA schools (2008-2010)

MARO kept its apprenticeship pathway over 30% in 2008-2010, which is the highest among all these QMEA schools and for the State of Queensland as a whole. It was the only school that kept increasing the apprenticeship pathway year by year during these three years. BATER increased its apprenticeship pathway by nearly 5% from 2008 to 2009, which was the largest increase of these QMEA schools. However, seven of the twelve QMEA schools decreased the percentage of apprenticeships from 2008 to 2009, with BOLA decreasing nearly 15%, PEER and TOAL, by 7%. The decreases in apprenticeships indicate that young adults had other choices or may be a consequent of the effects of the global financial crisis. From 2009 to 2010, there were differences among these QMEA schools. The percentage of young adults who preferred to become apprentices went up in such schools as BOLA, which increased by 10.7%, and TOAL, by 9.6%, regaining their 2008 levels. However, the other QMEA schools decreased their rate of apprenticeship completions by different degrees, with MERA falling 7.7%, the largest decrease. In 2010 the percentage of students preferring to become apprentices was higher in all the QMEA schools than that of the Queensland State with the exception of BAMA.
With regards to traineeships, eight of these twelve QMEA schools decreased the percentage of students pursuing these as post-school destinations, with MARO, KAN and BAMA decreasing around 4% from 2008 to 2009. Interestingly, TOAL increased its traineeships by around 8%, and VELA, 3.5% during the same period. PEER and BOLA also increased theirs a little. From 2009 to 2010, with the exception of BATER, the number of young adults who chose to become trainees across all the QMEA schools fell to varying degrees, with MARO and TOAL decreasing about 8%, and BOLA around 6%. Seven of twelve QMEA schools decreased the percentage of students taking up traineeships by a regular amount year by year over the three years. BATER increased 2.4% traineeships from 2009 to 2010. Ten of twelve QMEA schools saw a higher percentage of trainees than the Queensland State in 2008, nine in 2009 and seven in 2010. How did school students engage in apprenticeships and traineeships?

Many QMEA students now commence part-time apprenticeships or traineeships while still at school. These may be school-based, that is linked to school subjects or in some way overseen by the school or may be independent of school. In the either case, the apprenticeship or traineeship is undertaken as “part of a student’s part-time
employment, involves periods of off-the-job or structured on-the-job training” (Smith, 2004, p. 568).

Research has found that students are “mainly positive about their apprenticeships and traineeships” (Smith, 2004, p. 569). The learning outcomes from school-based new apprentices (SBNAs), and the links between school and work, appear to be greater than those made through ordinary part-time work or structured work placements. Off-the-job training appears to be “particularly effective when undertaken weekly at a local TAFE college, and least effective when undertaken at school or through distance or on-line delivery” (Smith, 2004, p. 569). VET in schools programs offer a number of benefits for students, such as the chance to gain a nationally accredited VET qualification; the choice of more ‘hands-on’ subjects; the chance to shine in area the students value and is socially valuable; and positive employment outcomes after leaving school (Smith, 2004).

Schools in some regions encourage students to try work experience first and then VET program in schools with the aim of attracting them into apprenticeships. However, VETiS participation is slanted towards those industries that schools can accommodate within their resources. In Queensland, school VET programs are usually offered to students in Year 11 and Year 12, but some secondary students are offered these programs in Year 10. New versions of traditional school curricula, including information technology, hospitality and office administration “remain the most popular subject areas studied, accounting for half of all school VET enrolments” (Anlezark, Karmel & Ong, 2006, p. 17). This creates a challenge for schools with regards to strategies used for organising students’ earning pathways. The next section explores this issue.

9.4 Changes in organising students’ earning pathways

With regard to working full-time destination, MERA had 38.6% of its students choosing to work full-time in 2008 (see Figure 9.19). This was the highest among twelve QMEA schools, but the percentage dropped to 27.6% in 2009 with 11% decrease, and rose a little again in 2010 (29.7%). At KAN, 25.4% of its students chose to work full-time in 2008, but this also dropped to 11.5% in 2009, nearly a 14%
decrease, and the percentage went up to 16% in 2010. At VELA, 24.7% of their students preferred to work full-time in 2008, but this dropped to 9.8% in 2009 and 8.5% in 2010, approximately 15% and 16% decreases respectively. At RICK, the percentage dropped from 23.2% in 2008 to 10.2% in 2009, a 13% decrease, but rose to 18.4% in 2010, with approximately an 8% rise. Of the twelve QMEA schools, PEER was relatively stable in the percentage of students working full-time. BATER, which is located in a mining area, increased its percentage from 12.8% in 2008 through to 17.5% in 2009 to 23.4% in 2010. Ten of the twelve QMEA schools reduced the percentage of the young adults working full-time from 2008 to 2009 with the exception of PEER and BATER. But from 2009 to 2010, half of the schools increased the percentage, meaning that more students chose to, and were able to choose to work full-time in 2010 than 2009. A possible explanation for this change might be due to the improvement following the global financial crisis.

![Figure 9.19](image)

*Figure 9.19  
Working full-time destination of students from twelve QMEA schools (2008-2010)*

Of the twelve QMEA schools, the percentage of students choosing to work part-time at BATER dropped from 20.5% in 2008 to 12.5% in 2009, an 8% decrease (see Figure 9.20). All the other QMEA schools increased the percentage of their graduates working part-time to different degrees. At PEER the increase was from 12.5% in 2008 to 29.6% in 2009, a 17% increase. At ALAN the increase was from 12% to 26%, a 14% increase. At KAN the increase was approximately 8%, at MERA around 9%, at RICK 9%, and at NANA around 7%. This suggests that students were
forced to work part-time in 2009 due to the changed labour market brought about by the global financial crisis. But the situation was more complicated in 2010. Half of the QMEA schools kept a similar percentage of students working part-time from 2009 to 2010. MARO increased the percentage from 11.1% (2009) to 20.3% (2010), with around 9% rise; MERA and TOAL increased around 3% and 4.5% respectively from 2009 to 2010. However, BATER and BOLA fell across the three years. On average, there was no major difference between these twelve QMEA schools and the Queensland State in terms of the percentage of students working part-time during the period of 2008-2010.

![Figure 9.20](image)

The evidence analysed above indicates that after completing Year 12, between one third and a half of young adults at QMEA schools chose to work either full-time or part-time, depending on the labour market conditions. This percentage was relatively high for most QMEA schools, compared with those going to university or becoming apprentices and trainees. However, due to conditions beyond their control, some young adults may lack the ability to get a satisfactory or their preferred post-school education, training and/or work even though they undertook apprenticeships or traineeships. In this case, their outcomes are influenced by not only macro-economic inputs, but also ‘non-economic’ factors such as family relations, friendships, beliefs and purposeful activity (Harreveld & Singh, 2008). Therefore, organisational changes in Senior Learning for these young adults need to focus not only on
economic factors, but also on social relations and the conditions affecting their freedom of choice to deepen and extend their diverse capabilities. Thus, in terms of VETiS one point concerns what employers look for from their future employees in situations where many adults are also seeking employment.

Knowing what employers look for from their young employees, young adults with a VETiS background may be able to negotiate their own pathways, and increase proportion of entering full-time jobs of their own choosing. Government policy expects school graduates to be engaged in education, training, or full-time employment (Queensland Government, 2006). The young adults participating in VETiS are taking various pathways to employment, some proceeding first to university while others may work full-time or part-time. However, it is more difficult and takes longer time for some pathways rather than others. Pathways involving multiple fields and sectors of education can help students to explore different career options and have a variety of work experiences. However, this process might be more straightforward if they were given good career advice. The length and smoothness of pathways are important factors. This is because the most successful and stable outcomes further down the track are linked to the amount of time young adults take to find work after leaving school (Woods, 2007). Additionally, it makes sense for young people who want full-time jobs to work part-time during Senior Secondary schooling, since participation in part-time work seems to make a difference to their chances of gaining full-time job rather than being unemployed (Vickers, Lamb & Hinkley, 2002).

Since their chances of gaining good jobs can be increased by participation in part-time work, it makes sense for QMEA schools to “help them obtain part-time jobs while they are still at school” (Vickers, Lamb & Hinkley, 2002, p. 8). More than this is that such learning can be accredited to their Senior Certificates. Participation in part-time work has strategic benefits for students who want to enter a full-time job when they complete Year 12. The QMEA schools enable Senior Secondary students to “exercise greater agency over the activities they engage in as they navigate their way towards adulthood” (Vickers, Lamb & Hinkley, 2002, p. 8). This is particularly important as the job market changes due to financial crisis and technological changes
which result in the loss of low skill manual employment opportunities. The entry level requirements for permanent employment are increasing (Stanley, 2007).

Since at least the early 1990s there have been some major changes in the labour market environment for young adults and these have affected the choices of school students with regards to their post-school destinations. Part-time work is regarded by Government policy as an incidental and marginal activity (Stokes & Wyn, 2007), with schooling remaining the main priority in students’ life. But this policy aims to overcome the separation between school and work that young adults can move between them. Moreover, the maintenance of this separation is increasingly in conflict with young adult’s lives, as greater proportions of young adults are both workers and students. It has been found that approximately “50% of students in the final three years of secondary school have part-time work” (Stokes & Wyn, 2007, p. 503). Integrating schooling and workplace learning becomes an issue for schools dealing with young adults who are both workers and students. This means recognising that school and work constitute domains that require different and sometimes contradictory identity performances.

Young adults seem to sense that participation in part-time work enhance their chances of doing well in the labour market in the long run (Vickers, Lamb & Hinkley, 2002). However, many factors influence a young adult’s choices and opportunities, including “family background, gender, academic achievements at school, the type of school they attended and whether they come from an urban or rural area” (Vickers, Lamb & Hinkley, 2002, p. 5).

The majority of Australian workers now enter the workforce initially through part-time work while studying. At least two-thirds of school students of working age have formal part-time jobs, and university students show even higher proportions (Smith & Patton, 2007). However, students’ part-time jobs have not generally been recognised as of educational importance. Therefore, student-working careers are both widespread and also invisible, an issue which QMEA schools confront.
9.5 Issues QME schools face in organising students’ pathways

The majority of the young adults from QME schools who completed Year 12 each year (2008-2010) were employed, irrespective of whether they were undertaking further education or training and many were working full-time or part-time. However, there were still a percentage of young adults who were seeking work or not studying nor working. These graduates remain a specific concern for the Governments, schools and parents (see Figure 9.21). Recall that one of the key reasons the Queensland Government gave for its education and training reforms was to address the needs of disengaged or alienated young adults (Harreveld & Singh, 2008).

![Figure 9.21](image)

**Figure 9.21**
Students from twelve QME schools seeking work (2008-2010)

With fewer students choosing to work full-time or being able to find full-time work more students had to work part-time, there were some students from these QME schools seeking work after completing Year 12. BAMA had the highest percentage of the students who were seeking work in 2008-2010. In 2008, 16.5% of its students were seeking work, but the percentage went up to 25.6% (2009) and 25.9% (2010), that is approximately a 9.2% increase. It follows that one quarter of the young adults who completed their Senior schooling at this QMEA school were unemployed and not engaged in further study. Year 12 completers seeking work increased from 2008 to 2009 in ten out of the twelve QME schools, eight of which had more than 10% of their students seeking work. At BOLA and NANA, the percentage reached 15%. At two schools the percentage dropped, with PEER dropping to 9.6% and MARO to
1.4%. The situation changed in 2010. The percentage of students seeking work dropped in seven of the twelve schools from 2009 to 2010, with BATER reducing by 8.2% and BOLA by 7.8%. However, during this same period, five QMEA schools continue to increase, with PEER rising by 7.6%, MERA, by 2.8%, and the other three, a little. After completing Senior Learning in 2008, half of the twelve QMEA schools had a higher percentage than the Queensland State of students seeking work, eight schools in 2009, and six schools in 2010.

What is worse is that there were some young adults who were neither studying nor in the workforce (NSNW) after completing Year 12 (see Figure 9.22). At MARO, 3.2% of its graduates were not studying or in work in 2009, which was an increase of more than fifty percent over 2008. At PEER and TOAL, around 2% of their students were not studying or working in 2009. Of the twelve QMEA schools, PEER, MERA, RICK, NANA and ALAN decreased the percentage of students in this situation from 2008 to 2009, with MERA dropping by 1.8%, NANA by 1.2% and RICK by 0.9%. BATER did not provide information about this. In 2008, six out of the twelve QMEA schools saw a higher percentage of students than that of the Queensland State who were NSNW. In 2009, it was three schools, and in 2010, it was two schools. According to earlier research, the percentage of young adults not in full-time learning or full-time work in Australia has “declined such that in 2007, it is the lowest since 1990” (Harreveld & Singh, 2008, p. 11). However, in 2010 the percentage went up drastically in some QMEA schools in Queensland. The reasons for this no doubt is complicated, but these young adults are a category who need help from different levels and agencies especially as there are relatively few of them.
The evidence analysed above shows that the situation for these young adults is challenging. The reason for this may be that those not engaged in any post-school activity have low levels of satisfaction with education, training or work (Woods, 2007). There are differences between young adults in the nature of their transition from school to a full-time job and/or further study, and how easy or difficult this process is, and those who do not participate in post-school education, training or work (Woods, 2007). It was found that individuals’ success in making the transition from school to work depends, in part, upon individual differences in abilities, values, and personality traits. While many individual differences have the potential to contribute to successful school-to-work transitions, those that “promote alertness, independence, and perseverance should be particularly critical to STWT success” (Ng & Feldman, 2007, p. 123). To do so it will be necessary to devise an alternative theoretical framework to better understand what is happening to them and then perhaps to extend to proactive development of the capabilities and skills needed by the ever-changing labour market.

As occurring elsewhere vocational education, including work placement were promoted by QMEA schools as “a way of moving young people towards a future career and as a pathway into employment” (Stokes & Wyn, 2007, p. 506). Participating in structured workplace learning helped some young adults decide whether they would continue in the same area of study or choose a different pathway. This means that there is a role for school VET programs to play in enabling students
to think about post-school pathways. There is also a need to ensure that all parties are clear about the focus of a work placement. Traditionally, employers were encouraged to regard the outcome of work placement as general experience of the world of work, but now placements “support work related learning in general; [being] career specific; … help re-engage the [young adults] in learning; [or be] part of their enterprise learning” (Asher, 2005 p. 68). Depending on the desired learning outcomes and QMEA schools’ timetable, the placements can be for a one or two week block, for a total of one or two days, or for several days on an extended basis of up to a year. There is a “growing pool of employers from a wide variety of sectors [who] provide safe, high quality placements” (Asher, 2005 p. 68). Woods (2007, p. 7) reports that a survey of former school students one to three years after they had left school, that participating in a school-based apprenticeship provided a clear pathway into apprenticeships or traineeships in a similar industry area. However, of the school-based apprenticeship participants working in a similar industry area after leaving school, there was a proportion who indicated that they wanted to move into other industry rather than working in a similar industry area.

This indicates that it is important to ensure that students have the opportunity to undertake work experience in a variety of industries, rather than just being limited to one.

School VET programs are also an effective means for young adults to explore career options. This is particularly the case when the length of time and variety of experiences in the workplace increases. Such career testing is important because some young adults believe schools are not providing enough career advice (Woods, 2007). Woods (2007, p. 7) suggests that “teaching school students to analyse and reflect on their paid-work experiences provides them with useful information when the time comes to consider post-school options”. Reflecting on their work placement may help make up for the lack of effective career advice.

In looking at successful post-school outcomes, the picture is complicated by the interaction of factors, such as, “a student’s academic ability, gender and parental background, as well as the location and type of school the student attended and his or
her engagement with that school” (Anlezark, Karmel & Ong, 2006, p. 14). All of these factors affect post-school outcomes, as well as “the health of the labour market” (Anlezark, Karmel & Ong, 2006, p. 14) and the global financial crisis. Some interviewees claimed that it is the parents who do not accept VETiS,

In most occasions I believe it is students rather than parents, although I think some parents still find it very difficult to accept that their students might be looking at going down a VET pathway. I think if we go back only a few years ago, you would have seen many parents really clearly wanting their students to go onto a university study, where students may not necessarily – that may not have been their pathway. (Rose, Director Assistant, August 9, 2009).

Parents usually prefer to have their children finish Year 12:

But the parents get what they want. What the parents really want is they want a kid to get a grade 12 education. They want them to finish senior. (Thomas, Principal, August 4, 2009)

For young adults who do not plan on entering higher education, engaging in work while at school may be a positive strategy, because it may help them gain a job and hence reduce the possibility of unemployment (Vickers, Lamb & Hinkley, 2002). Thus, it is questionable to claim that it is “pointless for schools to try to provide the specific occupational skilling of youth for a labour market in which there are too few jobs and the relationship between youth unemployment and vocational skills acquired as a result of school” (Taylor, 2005, p. 213).

Organisational changes and students outcomes are not in a one-way, uni-directional relationship. To improve student outcomes requires innovations in school organisation, including collaboration between schools and industries. The greater the recognition of the uncertainty and complexity of the labour market, the more likely better outcomes are to emerge.

The geographical location of QMEA schools was found to have a strong association with students’ pathways. Those QMEA schools located near universities were found to have more young adults who preferred to pursue further education. Those QMEA schools located near mining industries had more students who tended to work either
full-time or part-time. In addition, students’ outcomes in terms of immediate post-school destinations were also influenced by the macro-economic environment. In 2009, due to global financial crisis, the percentage of students who worked either full-time or part-time dropped to varying degrees in ten of the twelve QMEA schools. Moreover, the percentage of students, who were unemployed – either seeking work or NSNW – increased in eleven of twelve QMEA schools. In some schools, one quarter of their Year 12 completers were in this situation. In the next section, issues about student outcomes are further analysed by linking the theoretical concepts drawn from Chapter Two to the evidence analysed in this Chapter.

9.6 Linking vocationalism and education/production relationship to post-school destinations

This section presents a theoretical interpretation of the evidence analysed in the previous sections by linking it to the key concepts from Chapter Two (see Table 9.2). This theoretical interpretation provides a deeper understanding of the meaning and the significance of this evidence.

<table>
<thead>
<tr>
<th>School</th>
<th>University</th>
<th>Appr + Tr</th>
<th>FT+W PT</th>
<th>SW+NSNW</th>
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<td>08 09 10</td>
<td>08 09 10</td>
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<tr>
<td>KAN</td>
<td>22.4 24 28.2</td>
<td>22 14.2 12.1</td>
<td>39.2 33.2 37.8</td>
<td>7.4 15.7 13.6</td>
</tr>
<tr>
<td>MARO</td>
<td>12.3 10.9 17.2</td>
<td>39.3 46 39.1</td>
<td>24.6 19 34.4</td>
<td>6.1 6.4 4.7</td>
</tr>
<tr>
<td>PEER</td>
<td>19.8 14.3 17.9</td>
<td>25.1 17.3 19</td>
<td>30.2 49 38.9</td>
<td>18.8 9.1 14.7</td>
</tr>
<tr>
<td>MERA</td>
<td>8.6 13.8 4.1</td>
<td>28.6 28.7 19</td>
<td>47.2 44.8 50</td>
<td>10 9.1 14.9</td>
</tr>
<tr>
<td>BATER</td>
<td>12.8 7.5 17</td>
<td>41 42.5 40.4</td>
<td>33.3 30 34</td>
<td>5.1 12.5 4.3</td>
</tr>
<tr>
<td>BOLA</td>
<td>16.2 21.7 20.3</td>
<td>29.4 16.7 21.7</td>
<td>38.2 41.7 33.3</td>
<td>4.4 15.7 8.6</td>
</tr>
<tr>
<td>RICK</td>
<td>23.2 23.1 21.4</td>
<td>20.5 17.6 14.3</td>
<td>42 38 44.9</td>
<td>9 12.1 8.2</td>
</tr>
<tr>
<td>TOAL</td>
<td>18.8 20.6 19</td>
<td>20.6 21.5 23.2</td>
<td>39.3 37.2 42.1</td>
<td>10.7 12.8 10.7</td>
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<tr>
<td>NANA</td>
<td>14.1 23 19.4</td>
<td>18.3 14.8 18.1</td>
<td>40.9 36.1 36.1</td>
<td>12.7 16.4 15.3</td>
</tr>
<tr>
<td>BAMA</td>
<td>16.5 15.4 14.1</td>
<td>12.7 10.2 5.9</td>
<td>35.4 30.8 28.3</td>
<td>16.5 26.9 29.4</td>
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<tr>
<td>VELA</td>
<td>30.9 34 38.2</td>
<td>13.4 14.9 12</td>
<td>41.7 28.9 25.1</td>
<td>5.1 10.3 7.5</td>
</tr>
<tr>
<td>ALAN</td>
<td>30.9 24.7 25.9</td>
<td>15.7 11.6 10.9</td>
<td>32.9 38.1 36.8</td>
<td>5.8 8.4 7.3</td>
</tr>
<tr>
<td>Qld State</td>
<td>34.4 35.1 36.1</td>
<td>14.9 11.7 12</td>
<td>32.1 30.3 27.8</td>
<td>7.3 10 11.4</td>
</tr>
</tbody>
</table>

Students’ post-school destinations can be linked to the key concepts of vocationalism (Kliebard, 1999) and the education/production relationship (Bernstein, 1977) so as to
better understand the evidence of changes in the organisation of schooling (Hamilton, 1989).

There are several reasons for linking student outcomes with these key concepts. First, after completing Year 12, young adults end their Senior Schooling and prepare for the next stage of life. University provides students with higher education prior to entering advanced levels of employment. Apprenticeships and traineeships provide a more immediate expression of the relationship between education and production because young adults in this category need to put into practice the knowledge learned in schools and learn to produce goods and/or services through equipping themselves with certificated skills and knowledge. The pathway to work as an immediate post-school destination is an expression of and response to vocationalism and providing a test of the effectiveness of VETiS and its relations to production process. The young adults in the last category – those seeking work or not studying or working may be seen as representing the failure of Queensland’s VETiS reforms. However, this might be more of a function of a range of social and/or economic factors, such as the global financial crisis.

Second, current organisational changes in schools via VETiS is a response to the traditional emphasis in Senior Secondary school on academic subjects which only meets the needs of a minority of students. The analysis of evidence shows that only one out of the twelve QMEA schools had over 30% of its students going to university. Some QMEA schools had less than 15% of their students choosing university destination, with a few QMEA schools having as little as 8.6% or 4.1% of their students going to university. It might be argued that the traditional academic curriculum caters for a minority of QMEA school students. As in the past, it seems that the post-school destinations of students in QMEA schools may be divided into: “the abstract-minded and imaginative children, the concrete or hand-minded children, and the great intermediate class” (Kliebard, 1999, p. 32).

Third, in terms of improving student outcomes, while a minority of young adults are immediately university bound, the majority of high school students pursue VET, and hence immediate employment. Those in the ‘hand-minded’ category who sought work after completing school education are no longer neglected due to the
organisational changes in schools through VETiS. High schools now are no longer controlled by universities, so QMEA schools are being reorganised to address the needs of larger numbers of Senior Secondary students. The effort to prepare young adults for the demands of the workplace has become intertwined with the effort to adjust them to changing socio-economic conditions.

What secondary education has always been about is to make qualified persons out of students. However, the connection between schooling and student outcomes is open to different interpretations in terms of social efficiency. It was once advocated that there be “a reorganisation of secondary schooling into separate ‘vocational’ and ‘liberal’ strands” (Hamilton, 1989, p. 136). Some Australian States – not Queensland – and other countries established separate technical and academic high schools. There are good reasons for the claim that “schooling is simultaneously a site of social regulation and a site of social redefinition” (Hamilton, 1989, p. 154). Senior schooling is necessary and indispensable for every young adult because it enables the transmission of “particular occupational skills, to create a morally-trained labour force, or to mediate access to the labour market” (Hamilton, 1989, p. 22). However, school is not a place only for knowledge, it is also the arena where students gain skills they need for the life after finishing their formal schooling. Schooling finds its justification in its connection to students’ multiple outcomes.

Students from different classes have different relations to education (school/learning) and production (work/earning). The ruling interests – governments, industry and workplace authorities – dominate production by “deciding its means, contexts and possibilities” (Bernstein, 1977, p. 191). They have a direct relation to production but an indirect relation to education and its role in cultural reproduction as is the case with the Queensland Resources Council, the QMEA and its schools. Schools, educators, teachers and parents have appropriated “access to, and control over, specialised forms of communication” (Bernstein, 1977, p. 191), functioning as agents of cultural reproduction and change through re-forming the system of education and training. They have a direct relation to education and training but an indirect relation to production through school-based apprenticeships and traineeships. The consciousness of students tends to be dominated by the modes of education, training and production that now find expression through VETiS and the QMEA’s linking of
them to the mines and energy industry (Bernstein, 1977). For them there exists both segregation and integration between education and production. Local production in students’ immediate community creates forms of education and the training that are connected to that community’s economic or material base, which indicates the continuing “dependency of education upon the mode of production” (Bernstein, 1977, pp. 186-87).

In the past organisational reform made a distinct and separate system of high school education where academic studies were the fare for those who destined for higher education, while vocational training was provided for those expected to seek employment immediately after leaving school. However, such vocationalism seriously underestimated the swiftness of technological advances and the changing nature of the labour market, especially in the 21st century. The increasing specialisation in industrial labour and the assembly line had “a major de-skilling effect in the workplace, and this reduced sharply the need for extensive vocational training” (Kliebard, 1999, p. 137). Now students from the QMEA schools are no longer locked into this separation of academic and vocational education and training as the Australian-wide reforms have integrated the education/training trajectories of young adults (Bradley, 2008).

Organisational changes in the QMEA schools are closely linked to and regulated by economic changes, including the effects of natural disaster, as indicated by the evidence analysed in the previous sections. While the relationship between schooling (education) and work (production) is integrated in Senior Learning, it is separated in terms of the actual pathways taken by each student. This complicated relationship provides a stimulus to and impetus for organisational changes such as the hub-and-spoke model represented by the QMEA schools. This reform of Senior Secondary schooling cannot be separated from the changes in Australian society and its changing global connections. Changes occur across different dimensions within the QMEA schools and beyond. Changes outside the QMEA schools provide the sources and background for organisational changes within the QMEA schools, indicating that the relationship between schooling and vocationalism changes with time and context.
In terms of the economic value of VETiS, the idea was that if the schools were engaged in VETiS, those whose destination is not university would be “fitted for useful industries before the age of leaving school for business” (Kliebard, 1999, p. 10). But VETiS is now postponed until the students reach Year 12 in order to ensure proper attention to the achievement of school to work integration more than transition through the enhancement of school-mediated vocational instruction. Given that the global financial crisis had the effect of increasing the number of young adults seeking work or not studying or not working, VETiS per se can be seen as “no cure for unemployment” (Kliebard, 1999, p. 217). This is not to deny that preparing young adults with skills and knowledge for employment is useful. However, some difficulties with VETiS transcend such economic crises. For example, it is difficult to imagine QMEA schools even in the best of times keeping up with the rapid technological changes that occur in modern industrial societies. Concerns about outmoded or obsolete equipment and machinery led to the establishment of Trade Training Centres. VETiS courses integrate different forms of knowledge now being “more or less academic, and more or less trade oriented” (Kliebard, 1999, p. 104). Even so, guiding novices in the actual performance of some job related tasks is the kind of knowledge that schools are “structurally ill-equipped to provide” (Kliebard, 1999, p. 219). Thus, it is important for schools to mediate education and training which is provided by other agencies through brokers such as the QMEA.

9.7 Conclusion

This Chapter analysed evidence of student outcomes during the period of 2008-2010 in terms of students’ main post-school destinations. It was found that post-school destinations vary across geographic locations. Generally speaking, if a QMEA school is located in a large city or close to a university in a large city, students who

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90 The Trade Training Centers in Schools Program is an important element of the Australian Government’s Education Revolution. It provides $2.5 billion over 10 years to enable all secondary students to access vocational education through Trade Training Centers. Trade Training Centers are being established to help increase the proportion of students achieving Year 12 or an equivalent qualification and help address skill shortages in traditional trades and emerging industries. The Commonwealth and State and Territory Government and non-government Education Authorities are working closely to enable better opportunities for secondary students across Australia. Schools have an opportunity to apply for funding to build new, or upgrade, existing trade or vocational education and training facilities.
completed Year 12 were the most likely to undertake a university degree or VET Certificate IV+ courses, and that a larger percentage of students were likely to do so. However, those students attending QMEA schools in remote or very remote areas, and in many instances this means they were close to mining areas, were more likely to become apprentices, trainees or pursue employment. This demonstrates that the ‘hub-and-spoke model’ does not have a decisive impact on students’ immediate post-school destinations in these QMEA schools.

It also seems that the global financial crisis brought changes to students’ choices of immediate post-school pathways. The majority of the young adults of twelve QMEA schools who completed Year 12 during the period of 2008-2010 were engaged in study or work within six months after completing school. There was an apparent increase in participation in education and a decrease in workforce destinations from 2008 to 2009. The number of young adults seeking work increased in 2009 compared to the previous year. 2010 saw a rise in both participation in education and/or employment and a fall in those seeking work compared to 2009. This change in student outcomes was most probably affected by the global financial crisis.

Additionally, it was found that only a small percentage of students went to university each year in most QMEA schools, with a larger percentage of students choosing employment. Changes in organising students’ pathways may be switched from an emphasis on university to a combination of university and vocational education and training in schools to ensure each young adult has a satisfactory transition and a prosperous future. Students are not locked into being ‘eagles’ or ‘goose’, but some pathways may lead them to waddle while others enable them to soar. Organisational changes can make a difference in students’ pathways and their education, training and/or work outcomes. In the next Chapter, key findings and implications are presented, along with my reflections on the research process.
CHAPTER TEN
DILIGENCE IS THE PATH TO THE MOUNTAIN OF KNOWLEDGE;
ASSIDUITY IS THE BOAT TO THE ENDLESS SEA OF LEARNING.

10.0 Introduction

VETiS is playing an increasingly valuable role in helping young adults move from school to further education, training and employment. As more and more young adults are required to complete Year 12 or its equivalent it is necessary and important that schools are organised to be more relevant to a wider range of young adults, not just to those who intend to go to university. VETiS gives young adults opportunities to explore career paths and to develop the skills and attributes they are likely to need as part of the future workforce, and as such it is expected to benefit all young adults (Bligh & Barton, 2004). Contemporary VETiS cannot be understood in isolation from contemporary changes in the nature of the labour market and technology, and the history of changes in school organisation. In recent years, VETiS has risen to “unparalleled prominence in government policy, educational management, and organisational changes affecting schools” (Anderson, Brown & Rushbrook, 2007, p. 235). Thus, the research focus of this thesis has generated knowledge of theoretical-cum-practical significance for the organisational changes in Senior Learning through VETiS. During the process of this research, I have developed several key research capabilities.

10.1 Research capabilities developed through this project

Chapter One presented a roadmap, recounting the process of creating this thesis and foreshadowed the contributions to knowledge made through this research. This Chapter recounts step-by-step learning that led to the design of a Western-style research proposal. This included developing my capabilities for defining and refining the research questions that framed the focus of this thesis; establishing a theoretical framework to drive the conceptual analysis; tabulating the debates reviewed in the research literature; explaining and justifying the research method, especially the
subsequent data collection and analysis which eventuated. All these gave me insights into why and how to do this research. I learnt how to formulate a thesis statement based on the data analysis presented in the evidentiary Chapters. In Chapter One, I stated explicitly my argument of this thesis, that is:

successful organisational changes in VETiS for better student outcomes and smooth transition depend on effective strategies and implementation in VETiS policy, schools’ perception of VETiS, distinctive school curriculum concerning VETiS, efficient teacher professional learning and the partnership between schools and industries.

Chapter Three provided a review of the recent literature, accounting for what has been investigated and in what way in the field of VETiS in relation to my research questions, and what key findings have been found from those researches. Through reviewing this literature, I learned how to establish a gap in VETiS research, thereby distinguishing between what is known and what I could and needed to study to make a small, but nonetheless significant contribution to knowledge in this field. In reviewing this literature, I learned how to make appropriate citations and references so as to avoid plagiarism which is considered as a major issue for international students from Asian countries (Kingston & Forland, 2008). Technically, I learned the skills needed for organising large amounts of information by categorising and tabulating them according to different themes. This was totally new to me and initially I was confused, but with guidance I developed my competence in this regard. I also learned how to search for topic-related articles by using electronic data bases on the internet.

Chapter Two provided an account of the theoretical tools used in the evidentiary Chapters to analyse the data needed to answer the research questions posed in Chapter One. Specifically, I learnt to identify concepts drawn from Hamilton’s (1989) Towards a Theory of Schooling, Bernstein’s (1977) Class, Codes and Control, and Kliebard’s (1999) Schooled to Work: Vocationalism and the American Curriculum. What I learned in establishing this theoretical framework was how a concept map can be devised to signal the relationships between and among the concepts drawn from these three theorists both hierarchically and linearly. Identifying these concepts and
mapping their relationships were both interesting and confusing to me, at least initially. After guidance, I made a success of them. This gave me great confidence and more interests in doing conceptually-driven research in Western countries and in my homeland as well in the future.

Chapter Four elucidated the principles guiding the educational research reported in this thesis, including the reasons for choosing case study as my research strategy. Likewise research design and related issues were explained in that Chapter, along with the principles and procedures for data collection and analysis. I collected a large amount of raw data for selection and use in this thesis. As a result the process of doing the research reported in this thesis, I revised and improved the initial design and process in accordance with the data available and analytical tools I learned to use. An important by-product of this Chapter has been the large amount of information and knowledge accumulated concerning case study and qualitative research, which can be used in my future research in education and/or in linguistics, as well as in my teaching.

Chapters Five to Nine presented the analysis of the primary evidence. Chapter Five explored the organisational changes implied in four Government policies about VET/iS. An initial analysis of the QMEA, conceptualised in terms of a ‘hub-and-spoke’ organisational mode provided insights into organisational changes arising from school/industry partnerships. I tried different methods to analyse the policy evidence presented in this Chapter. It was not easy for me to decide to use an unfamiliar – and perhaps uncommon – method to analyse policy because this brings with it difficulties, uncertainties and possible objections. However, it was necessary and important for me to try and improve my use of a variety of data analysis techniques. With this idea in mind, I used “dramaturgical coding” (Saldaña, 2009, p. 102) as a method to analyse a policy about VETiS even though there are other approaches to doing such policy analysis. The purpose for doing this type of coding was to use a vivid means to better understand and interpret the information policy makers want to convey to policy readers.

Chapter Six analysed VETiS courses, programs and activities offered in QMEA school curricula, drawing on the School Annual Reports (2007-2008) to make this
effective analysis. The analysis of the evidence revealed that the QMEA schools’ VETiS offering varied greatly from school to school. There also existed a difference between the VETiS courses on offer and those actually provided. Historical issues about vocational education, such as attitudes towards academic and vocational education reinforce the low social status of VETiS. Selecting relevant data about school curricula for analysis is time-consuming and perplexing. I had to categorise, structure, restructure, reorder and merge the data again and again. During this process, I learned to highlight and foreground the important data that was especially significant for this thesis so as to provide an overall picture of VETiS in school curricula, and to interpret the evidence using key concepts drawn from the theoretical framework.

Chapter Seven analysed the organisational changes in teachers’ professional learning, alongside QMEA schools’ investment in their professional learning and teachers’ involvement in these initiatives. This evidentiary analysis helps to better understand the important role teachers’ professional learning plays in the organisational changes in schools. The VETiS programs and activities that QMEA schools offered to their teachers were quite different from those presented to their students. Initially I assumed that in those schools which invested a large sum of money on teachers’ professional learning the percentage of teacher involvement would be high. However, the analysis of evidence revealed that I was totally wrong. Investment in professional learning and teacher involvement are not always in direct proportion. This taught me an important lesson, namely that in research evidence speaks louder than presumptions.

Chapter Eight analysed the QMEA schools’ public communication about VETiS. I presented an account of the issues selected for the school newsletters and, then analysed them in detail. The criteria for selecting and ordering this evidence was set, reset and revised once and then again. In ordering this evidence, I initially organised it according to the location of seven QMEA schools. Then I found that this did not make much sense, so I reordered it according to the amount of VETiS information offered. Later I realised even though this order was better than the previous one, it still did not sufficiently explore key issues. Finally I restructured this Chapter according to the amount and variety of the information offered by each QMEA
school about the QMEA and VETiS. This trained me to link the evidence to the research problem as closely as possible and to connect the evidence with the theoretical tools.

Chapter Nine investigated student outcomes for the period 2008-2010, focusing on students’ post-school destinations. This Chapter is the only one that contains evidence drawn from 2010. I decided to include this evidence after analysing the evidence of Government policies, school curricula, teacher professional learning and the public communication undertaken by QMEA schools. I wanted to know what outcomes have been obtained over these years from Queensland’s education and training reforms. The evidence of student outcomes for 2008 and 2009 did not seem sufficient enough, especially given global economic crisis on students’ post-school pathways. In the process of analysing this evidence, I learned to let evidence ‘speak’ first, to keep the key theoretical concepts in mind when writing this Chapter and to consider the connections between the data and theoretical concepts. This equipped me with the capability of approaching the topic from different perspectives and triangulating different data sources. Technically, I learned how to use different figures to reduce, represent and compare the similarities and differences in the evidence from different QMEA schools across different years. It proved to be an efficient and effective means for presenting data for analysis and interpretation. After collecting all the data and providing detailed analysis of the evidence, key findings were generated, making the suggestion of potential applications possible.

10.2 Key findings

This thesis has added to our understanding of the concept of ‘hub-and-spoke model of industry/school organisation’ through this exploratory case study of organisational change. The meaning for this concept has been developed inductively through an understanding of the reconfiguration affecting curriculum, teaching professional learning, school communications, organisational changes and student outcomes. As noted in Chapters One, Two, and Three, Weber’s (1992, p. 8) conceptualisation of the ‘spirit of capitalism’ proceeded in a similar inductive manner. This thesis has provided an exploratory study of the concept of ‘hub-and-spoke model of school/industry organisation’ in terms of government policies, school curricula,
teacher professional learning, school public communications, and student outcomes. The analysis of the evidence reveals that the ‘hub-and-spoke model’ has some impacts on some QMEA schools in terms of some aspects, but not all. A direct and decisive impact of the ‘hub-and-spoke model’ on any individual aspects has not been found from the data analysed.

Given the silence in the educational literature on the concept of ‘hub-and-spoke model of industry/school organisation’ it was impossible for me to define this term when starting my research. The analysis of the seemingly disparate body of secondary evidence in the research literature add together to address the focus of this thesis. It is useful to recall that this is similar to Weber’s (1992, p. 9) procedure where it was “not be possible to arrive at the ultimate definition of the concept at the outset but only at the conclusion of the investigation.” In other words, it has only been in the course of the analysis of the primary evidence presented in this thesis that it is possible to better understood by this concept. In this Chapter I provide a model of how this concept can now be understood based on the theoretical and empirical research reported in this thesis. Of course, I understand that my interpretation of this concept is not the only explanation possible, and that it is itself an outcome of the research reported here.

This study investigated a set of research questions about organisational changes in schools via VETiS through addressing multiple traces of Queensland’s education and training reforms. It provides a theoretically informed analysis of evidence about a hub-and-spoke organisational mode through a study of organisational changes in policy, school curricula, teacher professional learning, school/public communications and student outcomes. Key elements of organisational changes effected through the QMEA’s hub-and-spoke model are depicted in Figure 10.1.

The introduction of VETiS in Senior Secondary education represents of redefinition of the relationship between education and production, moving from their separation to integration. Redefining the relationship between education and production (Bernstein, 1977) was a driver for the hub-and-spoke model of organisational change represented by QMEA schools engaging in VETiS reforms to Senior Learning. This relationship was redefined by the evidence analysed in this thesis. This redefinition
was regulated by Government VET/iS policies which made the hub-and-spoke model possible but did not explicitly address this organisational reform. Vocationalism (Kliebard, 1999) was an educational ideal implemented by the QMEA via this model through a focus on the mines and energy sector. Hamilton’s (1989) account of the historical development of school organisation sees a potential extension in the QMEA operating the model. This thesis explored how the hub-and-spoke model was employed by the QMEA through curriculum, teacher professional learning, and public communication in response to Government policies. School curriculum and investment in teacher professional learning reflected a positive trend, but there was a negative trend with respect to the offering of professional learning, teachers’ involvement in it, and public communication. The key aim of these organisational changes in curriculum, teacher professional learning and public communication through the QMEA’s hub-and-spoke model was for better student learning outcomes. These organisational changes generally produced a positive trend in the post-school destinations in the areas of apprenticeships, working part-time, Certificates IV and III and seeking work. There was also a positive trend with those not studying nor working decreasing. There was a neutral trend for those pursuing a university destination, changing little over the period of 2008-2010. However, there was a negative trend with regards to student to taking up full-time work, doing a Certificate I-II, or undertaking traineeships. These outcomes were affected by factors, such as the natural disasters, school location, students’ socio-economic status and the global financial crisis, which also influenced the organisational changes in schools through VETiS.
Figure 10.1
Organisational changes to Senior Secondary Schooling via VETIS (Source: based on an idea by M. Singh)
This thesis addressed the question of what does this exploratory case study reveal about the ‘hub-and-spoke’ mode of organising groups of Secondary School around particular by industries, specifically in terms of Government policies, school curricula, teacher professional learning, school communications and student outcomes? The key finding from this study is:

*The Hub-and-spoke mode of Secondary School organisation is a potentially effective strategy for re-organising groups of schools to support work-integrated education and training so as to enhance successful and smooth post-school transitions for young adults.*

The QMEA organises its students’ learning and earning across Years 10-12 via a hub-and-spoke model. With the ‘hub’ located in Brisbane, it operates the model by creating links to eighteen schools located across the State of Queensland. In order to encourage schools to collaborate, three zones have been created for effective cooperation – Northern Queensland with three schools, Central Queensland with nine schools and Southern Queensland with six schools. In 2010, ten more schools from the Surat Basin joined the QMEA, extending the QMEA’s reach to Western Queensland. Established in 2007 and partnering with Queensland Resources Council (QRC), the Queensland Government, and training and education providers, the QMEA set its educational mission as integrating the learning and earning of its constituent schools so as to encourage students to enter the minerals and energy industry. It provided these students with opportunities to enrol in subjects that focus on minerals and energy, and to participate in live-in experiences, mine and power station tours, industry-based work experiences, as well as traineeships and apprenticeships. The QMEA’s strategic plan for 2007-2009 set out to provide interconnected learning pathways to encourage young adults to take up employment in the Queensland minerals and energy industry so as to ensure that it builds Queensland’s wealth and security into the future.

The QMEA provided diverse projects and activities for both students and teachers in its constituent schools. To engage those students and teachers in the minerals and energy industry it offers both in-school and extra-curricula training. The ‘hub-and-spoke organisational mode’ operates to provide young adults with diverse education
and training, and thus options and opportunities for employment in minerals and energy industry. The QMEA’s organisational mode can be regarded as providing new and potentially effective way of bridging the gap between learning and earning. The QMEA’s ‘hub-and-spoke organisational mode’ represents an extension of school organisational change (Hamilton, 1989). It also embodies Bernstein’s (1977) ideas on the integration of education and production, and a supplementation of Kliebard’s (1999) vocationalism. VETiS is a vehicle creating and making this possible as a new organisational structure.

Hamilton (1989) shows the history of the organisational development of schooling in terms of the formation of classes, classrooms and schools. The organisational changes in classes, classrooms and schools constitute a significant historical process of organising and re-organising schooling. The QMEA’s hub-and-spoke model extends this history by combining schools together to form an extended, integrated school community. This is a potentially effective strategy for re-organising schools which provides the QMEA’s students with more options and opportunities for education and/or training and/or full-time work. Bernstein’s (1977) conceptualisation of relationship between education and production rests on the classification of these into two categories. These can be approached by either the separation or integration of these two categories. The QMEA integrated education and production through its hub-and-spoke organisational mode. The QMEA engages its constituent schools by providing options and opportunities for courses, training, activities, programs and awards for both students and teachers. QMEA schools are also engaged in providing offerings to encourage their students to seek careers in the minerals and energy sector, which signals their integration of education and production.

However, not all its schools are as yet fully engaged or integrated into the QMEA and its offerings. From the analysis of some schools’ curricula, teacher professional learning and public communication, it can be seen that they are not fully integrated into the QMEA and its offerings which may signify their separation of education and production. Kliebard’s (1999) vocationalism demonstrates an approach to the development of vocational education that ignores the integration of learning and earning. The QMEA’s hub-and-spoke organisational mode emphasises successful transition from school to work and/or further education and training, that is both
vocational and academic education. In this sense, this model moves beyond vocationalism. However, the evidence shows that in the instance of the QMEA the trends are such that much more work need to be done to operationalise this mode of organisation. Despite official rhetoric in areas where it counts – Governments’ policies, school curricula, teacher professional learning, public communications and student outcomes, to date the ‘hub-and-spoke mode of organisation’ has had little apparent impact.

Chapter 5 addressed the question of what strategies do Government policies use to drive organisational changes in Senior Schools through VETiS. The key finding from this study is:

*Although government policies say little about the motives and actions driving organisational changes in Senior Schools through VETiS including the principles and strategies, the lack of adequate funding is an important issue.*

In the four Government policies, much has been said about Governments’ motives for producing VET/iS policies and Governments’ actions in organizing Senior Learning through VET/iS. In the Government policies, the principles and purposes of organising VET/iS has been presented. Governments’ strategies for organising students’ transition and support services have also been provided in addition to addressing organisational changes in learning setting and measurement. However, there has been only a mention of funding in two policies without further or detailed addressing of this issue. The lack of Government’s supportive and adequate funding is a key obstacle to the organisational changes needed to institutionalise the QMEA schools as a new educational institution. Government VETiS policies have not increased investment in development such as the ‘hub-and-spoke’ model. QMEA schools are encouraged to partner with industries to implement VETiS, and the Queensland Resources Council provides resources. Most QMEA schools can not afford VETiS training. Crucial financial support from Governments and partnership with industries are possible solutions to VETiS issues.
Chapter 6 addressed the question of what do public representations of QMEA schools’ curricula say about the offering of VETiS related courses and/or activities. The key finding from this study is:

*Although some QMEA schools provided their students with various VETiS courses, programs and activities in their school curricula they produced varied results, of which going to university was not the dominant outcome.*

In most QMEA schools, young adults were offered VETiS courses, programs and activities in school curricula. A third of the QMEA schools provided their students with a variety of VETiS courses, programs and activities, but this did not mean that young adults follow this pattern after completing their schooling in school curricula. Some QMEA schools have more students choosing to go to university than any other pathways. Other QMEA schools have similar numbers of students going to university and working full-time or part-time. In some QMEA schools, more students preferred to become apprentices or trainees than pursuing other pathways. Further, some QMEA schools saw a similar number of young adults going to university, being apprentices and trainees and, working full-time or part-time. In one particular QMEA school, a quarter of their young adults were in seeking work over two successive years. However, while some QMEA schools did not provide many VETiS courses, programs and activities, nearly half of their young adults chose to work, with the number of students going to university fewer than those seeking work. One clear point to emerge from the data analysed in this thesis is that going to university is not a dominant pathway any more for Senior Secondary students. Multiple pathways are the apparent outcomes of young adults when they complete their Senior Secondary schooling. The evidence also reveals that VETiS courses, programs and activities per se in school curricula do not play a decisive role in students’ choice of pathways. There must be other factors which affect young adults’ destination decisions.

The Senior Secondary school curriculum with its traditional emphasis on academic subjects was meeting the needs of only a small minority of young adults. Young adults in schools were divided into three categories: “the abstract-minded and imaginative children, the concrete or hand-minded children, and the great
intermediate class” (Kliebard, 1999, p. 32). In the secondary school curriculum, the so-called hand-minded students were neglected by and eliminated from the existing system of schools. Because the existing Senior Secondary schools failed to address the needs of most young adults, vocational education was developed to supplement the capacities of the existing workforce. Otherwise, young adults had to take ‘dead-end’ jobs with no hope for advancement. However, there still existed a view that schools were not for the purpose of trade training. The schools are not established for the purpose of teaching students how to make a living but to teach them how to live; they are not to teach trades, but to enhance a desire for education (Kliebard, 1999, p. 68).

A bifurcated system between academic and vocational education was organised, the latter being introduced to increase the percentage of young adults attending schools. A key problem with this system was the division made between academic and vocational studies, between the theoretical and the practical, between thinking and doing. The consequence of this distinct system of Senior Secondary schooling was that academic studies was offered for those who were prejudged as being capable of soaring, while vocational training was provided for those who were prejudged to be capable of just waddling.

Chapter 7 addressed the question of what are the initiatives and investment of the QMEA schools and their teachers’ involvement in professional learning. The key finding from this study is:

Teachers’ involvement in teacher professional learning is not in direct proportion to the QMEA schools’ initiatives and investment in it.

Most QMEA schools provided their teachers with a variety of professional learning activities and training, including VETiS. Some QMEA schools invested large sums of money on these, but their teachers’ involvement in these initiatives was not always in direct proportion to the initiatives offered or the investment that was made. KAN provided its teachers with variety of professional learning and invested the most among all the QMEA schools. It invested much more than any other QMEA school in 2008 and 2009, and had about 90% of its teachers involved in these offerings. In contrast, TOAL expended a relatively small amount of money on teacher
professional learning, especially in 2009, but had 100% of its teachers engaged in these initiatives in both 2008 and 2009. NOA spent the least on teacher professional learning, and its teachers’ involvement was also less (see 7.2 and 7.3). A possible explanation for this might be that on the one hand what is offered does not suit teachers’ interests or needs, and on the other, the quality of these offerings might not be satisfactory. At a deeper level the provision of VETiS professional learning might be expected to be resisted by Senior Secondary teachers who are committed to the separation of education and production.

Chapter 8 addressed the question of what is the variety of public communication QMEA schools engage in about VETiS and the QMEA. The key finding from this study is:

Although QMEA schools are engaged in providing information about VETiS and/or the QMEA through their public communications, there are differences in both variety and amount provided.

All these seven QMEA schools provide VETiS information in their school newsletters for public communication. However, there is a big difference in both variety and amount. Two of the seven QMEA schools offer a variety and an amount of VETiS information for public communication. Another two QMEA schools just mention the VETiS information in school newsletters. Of the seven QMEA schools, three of them present both VETiS and the QMEA information in school newsletters to publicly acknowledge they are under the QMEA. QMEA schools’ public communication via school newsletters reveals their value and disposition towards VETiS and the QMEA because some QMEA schools provided a variety of VETiS information in their newsletters while others only made a brief mention of it. Some QMEA schools repeatedly emphasised career activities or particular VETiS programs which shows their disposition towards, and provision of VETiS, and their involvement in the QMEA. The evidence from this Chapter shows that although there is an integration between the QMEA and at least some of its schools in so far as some schools publicly claimed to be part of the QMEA as well as providing information about QMEA related activities and programs, these two parties still exist
mostly as separate entities, at least in terms of public communications produced by QMEA schools.

Chapter 9 addressed the question of what changes have occurred in students’ choices in immediate post-school destinations from 2008 through 2009 to 2010. The key finding from this study is:

While changes have occurred in students’ choices of immediate post-school destination, no one was found to be decisive.

Economic crises have an important influence on students’ preference for different pathways. Student outcomes revealed that 2008 global economic crisis led to the reduction of the number of QMEA school students working full-time after completing Year 12 in 2009. However, the number increased a little in 2010 in half of the QMEA schools as the economy improved. The so-called global financial crisis forced more young adults to work part-time. Nearly all the QMEA schools increased the number of students working part-time in 2009, but in half of the QMEA schools this number was reduced in 2010. During the same period of time, the number of students choosing to go to university increased slightly in half of the QMEA schools, but the number of students seeking work went up in ten of twelve QMEA schools, with nearly half of them increasing considerably. In one QMEA school, a quarter of its Year 12 completers were seeking work in both 2009 and 2010. That this economic crisis had the effect of forcing young adults to seek jobs rather than to study or gain work, indicates that VETiS is no cure for unemployment.

School location plays an important role in affecting students’ choice of pathways. Those schools that located in large cities or close to a university (in large cities) have more students choosing to go to university (see 9.2). The number of students preferring to go to university did not vary much across the twelve QMEA schools for 2008-2010. Those schools that were located in remote areas or near mines and energy industry (mostly in remote areas) saw more students seeking employment (see 9.3). In 2008-2010 in nearly all QMEA schools there were substantial changes in the number of students choosing to work full-time or part-time due to the economic situation and their schools’ remote geographical location.
Another key finding of this study was:

Historical issues about vocational education continue to exist in the current debates concerning academic versus vocational schooling being evident in the relatively low social status of vocational education.

Historically, it is claimed that although the great majority of children might be destined to earn their living by manual labor, this did not mean that “the school should devote itself to prepare its students for this work” (Harris cited in Kliebard, 1999, p. 11). Not surprisingly, the motto of Senior Secondary schools has tended to be “arts, not trades; instruction, not construction” (Kliebard, 1999, p. 4), which means the schools separated education from production. Under such circumstances, the obstacles to organising the incorporation of what was then called manual training in the curriculum remained strong. Despite economic considerations, there was passionate questioning of the idea that “preparation for a future job should be exalted above other factors” (Harris cited in Kliebard, 1999, p. 11). Although manual training achieved some success both in terms of national visibility and implementation in schools, the most serious problem was that it “did not provide the job training that the new industrial order required” (Kliebard, 1999, p. 27). As the twentieth century began, manual training was gradually changed into vocational education so as to meet the training required in the new workplaces.

People’s negative attitude towards VETiS is one obstacle to the organisational changes to create QMEA schools through VETiS. At the school level, the principals of QMEA schools, who are regarded as important in deciding VETiS, report limited VETiS information in their schools’ public communication, let alone in the principal’s forward. This is perhaps indicative of their attitudes towards VETiS. In some QMEA schools, young adults were not provided with a significant range of VETiS courses, programs and activities in their curriculum which is an important means for organising school knowledge. Academic studies continue to occupy a dominant position in the QMEA school curricula. With respect to teacher professional learning, there were not many specific VETiS initiatives. Most of these initiatives focus on literacy and numeracy, ICTs and leadership. Some QMEA
schools provided new teachers with professional learning programs, most of which centred on pedagogy and class management. The key people in QMEA schools who are very important for the implementation of VETiS are school teachers, including career advisors. Their attitudes towards VETiS and their practical career guidance have an important impact on students’ engagement in VETiS.

From the perspective of learners’ choices, it is suggested that the organisation of provisions for Senior Learning needs further changes. This is because all young people have the capacity to learn and gain school credentials as long as the educational environment is appropriate and flexible. Historically established modes of Senior Secondary schooling are now seen as unsuitable to the needs of at least some young people who are required to complete Year 12 or its equivalent. That is to say university-oriented Senior Secondary schooling may play a role in the alienation and disaffection of some young adults.

These issues continue to exist in the twenty-first century. Young adults from low socio-economic status groups continue to be less likely to participate in Year 12 than those from either the medium or high SES groups (Harreveld & Singh, 2008). School careers advisors tend to advise academic students to take VETiS subjects in order to gain an advantage over their fellow academically-oriented peers and to get some relief from the rigours of academic studies (Dalley-Trim, Alloway, Patterson & Walker, 2007). In contrast, undertaking VETiS is presented as the ‘only’ option for non-academic students. This means that academic students take VETiS to gain an advantageous position over their academically-oriented peers; while non-academic students taking VETiS do so because this is their ‘only’ viable option given their supposed lack of academic ability. The consequence of streaming young adults in this way is to lead non-academic students into VETiS while their academic counterparts are more selective. That university entry is available to both categories of students might contribute to further changes to this separatist thinking.

In the curriculum of the eighteen QMEA schools, the proportion of VETiS offerings that was publically reported was not high; in some schools there were very few VETiS offerings. This issue was worse in terms of the teacher professional learning offered by these same schools. Most QMEA schools did not provide their teachers
with VETiS professional learning. In the area of public communication in the QMEA schools, some provided little VETiS information in their newsletters. All this seems to suggest that VETiS, although advocated by the Governments and initiated and executed by the QMEA, has not gained equal social status with academic education. There are still much room for improvement.

Summary of key findings

Table 10.1 presents the trend from the effects of the QMEA on curriculum, teacher professional learning and public communication. The symbol + signifies a positive trend, – a negative trend, ~ neutral and m/d indicates missing data. The positive trend associated with these organisational changes saw more VETiS courses, activities, programs and initiatives were offered for young adults and teachers, and more money invested and more teacher involvement in professional learning initiatives in 2008 than 2007, otherwise the trend was negative. Where there was no difference between these two years, the trend was neutral. Where no such information was presented it has been referred to as missing data (m/d). The QMEA schools were categorised into two groups according to their locations. In Table 10.1, of all the QMEA schools (n=16) those in the white area are located in large cities (n=7), and those in the grey-shade area are located in remote regions (n=9). For public communication the trend was determined by the amount of VETiS and the QMEA information provided. The more specific information provided in this regard was considered as positive while the less information offered was regarded as neutral.

Table 10.1

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<tr>
<th>Schools</th>
<th>Curriculum</th>
<th>Teacher professional learning</th>
<th>Communication</th>
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<td>Offering</td>
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<td>RICK</td>
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<td>TOAL</td>
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<td>m/d</td>
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<td>MARO</td>
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Table 10.1 indicates that overall, the involvement of the QMEA in VETiS has produced both positive and negative trends with respect to curriculum, teacher professional learning and public communication. To be specific, as far as the curriculum was concerned, the general trend was positive, even though there were negative trends in schools located in cities and in one school that was missing data. In terms of teacher professional learning, most of the QMEA schools (5/7) that located in cities did not provide any data relating to VETiS, with two of these schools having positive trend. For the QMEA schools located in regional areas, nearly half of the schools (4/9) revealed a positive trend, with two schools having a negative trend, one neutral and two missing data. With regard to investment in teacher professional learning, a positive trend appeared in the QMEA schools located in cities but no strong negative trend for the schools located in regional areas. As to teachers’ involvement in professional learning offerings, a neutral trend was evident in the QMEA schools in cities but that was a negative trend (6/9) for schools in remote areas. With reference to public communication, the overall trend tends to be nearly equal with four QMEA schools presenting a positive trend and three a negative trend. Therefore, the overall effects of the QMEA tend to be positive in the curricula, the offering of professional learning and schools’ investment in the offerings, but negative in teachers’ involvement in professional learning offerings and neutral in public communication.

Table 10.2 provides an overview of the trend from the effects of the QMEA and school location on students’ post-school destinations. The symbol + signifies a positive trend, – a negative trend, and ~ the base-level data. The data from 2008 provided the base level data. In Table 10.2, of the twelve QMEA schools, seven of them are located in urban areas or close to university, and five are in the regional or remote areas. The trend relates to students’ ten post-school destinations from 2008-
2010. If more students chose to go to a given post-school destination in the ensuing year than the previous year, it is regarded as a positive trend. If it moves in the opposite direction it is a negative trend. If there was no substantial change it is regarded as neutral.
<table>
<thead>
<tr>
<th>School location</th>
<th>Uni</th>
<th>Cert IV</th>
<th>Cert III</th>
<th>Cert I-II</th>
<th>Apprenticeship</th>
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Table 10.2 shows that the QMEA school location was positively related to students’ post-school destinations in terms of apprenticeship, working part-time, Certificates III and IV, seeking work, and not studying nor working, a neutral effect on their university destination, but a negative trend with respect to working full-time, Certificate I-II, and traineeship. A key factor affecting the latter was likely to be the global financial crisis which began in 2008.

Specifically, as far as the university destination is concerned, in 2009 and 2010 it presented a neutral trend in the QMEA schools located in both urban and regional areas. With regards to Certificates, a neutral trend appeared in 2009 but a positive trend in 2010 in both areas for Certificate IV. However, for Certificate III, a positive trend emerged in the QMEA schools located in the urban area but a negative trend was evident for those in regional areas in 2009. In 2010, there was a positive trend for those schools located in regional areas but a negative trend for those in urban areas. As to Certificates I-II, a positive trend was seen in the QMEA schools in both urban and regional areas in 2009; and an overall neutral trend in 2010. With regard to apprenticeships, there was a negative general trend in 2009 and a positive trend in 2010. In contrast, traineeships followed a strong negative trend in both 2009 and 2010. In terms of working full-time, the trend was strongly negative for the majority of the QMEA schools (10/12) in 2009, and tended to be neutral in 2010. As to working part-time, a strong positive trend appeared in 2009, but this tended to be neutral in 2010. The situation for the post-school destinations of seeking work and, not studying and nor working was negative in 2009 and positive in 2010. Therefore, in 2009 the QMEA school location had positive effects on Certificate III and I-II, negative effects on apprenticeships, traineeships, working full-time and part-time, seeking work and not studying nor working, and neutral effects on university and Certificate IV. In 2010, the post-school destination was positive for Certificate IV, apprenticeships, seeking work and not studying nor working; negative for traineeships and working full-time; and neutral with respect to university, Certificate III and I-II, and working part-time.
10.3 Limitations and delimitations of this research

As is the case with all research, there are several limitations to this study. First, there is much more interview data that could have been analysed and used in this research, but there was a need to constrain the size of thesis. I conducted eighteen interviews with school principals, VET coordinators, partnership managers, industry representatives and VETiS graduates. Only a small part of these interviews were used to supplement the evidence extracted from the documents analysed in order to show the interviewees’ ideas concerning key issues. Second, in total there were eighteen QMEA schools in 2008-2009, but none of the evidence includes all of them. That the evidence is incomplete is due to the lack of data being made available. Third, with the exception of student outcomes, evidence from 2010 was not included in this thesis. This is because at the time of writing the evidentiary Chapters 2010 data was no publicly available. Fourth, I did not investigate the collaboration between schools, which might be an effective means for improving student outcomes. Finally, the reasons for pathway changes given by students themselves have not been investigated in this research. Such data might provide a better understanding of organisational changes in QMEA schools through VETiS.

Rebuttals and counter-claims

1. Academic study was once seen as “having little value other than preparation for admission to college” (Kliebard, 1999, p. 155). QMEA schools now undertake responsibility for matching individual interests and capacities, mindful that VET is no longer a determiner of their ultimate social roles. While students can have differentiated education and training that is required for them to perform successfully in a given job, VET qualifications now allow them to pursue higher education. This differs from Kliebard’s (1999) account.

2. In terms of economic considerations, preparation while at school for a future job is “exalted above other factors” (Kliebard, 1999, p. 11). Whether this is desirable remains questionable and needs further research.
3. The institution of apprenticeship was waning, because such an extended period of training no longer seemed warranted to enter the industrial workforce. For a time this suggested that “extended vocational training in schools was just as pointless” (Kliebard, 1999, p. 138). The efforts of the QMEA indicate this situation has changed. Apprenticeships are becoming the preference of many students (see Figure 9.14). In one particular school, from 2008 through to 2009 to 2010, over 30% of its students chose to become apprentices.

4. Hamilton (1989, p. 133) argues that “if the organisation of a school was subordinated to the needs of every pupil, then the school’s overall ‘mechanical excellence’ could be jeopardised”. The evidence analysed indicates that this claim might not be the case for all QMEA schools because student outcomes are such an important motive driving Senior Secondary schooling.

10.4 Implications

The implications of vocational education for higher education in China

This research is applicable to educational reform of higher education in China. Organising universities into communities according to location and disciplines, partnering them with industries, companies or organisations concerned, or collaborating between these universities might create opportunities for students in training and skilling, thus, enhancing the chance of producing students with ‘high scores, high capabilities’.

Most college graduates in China are equipped only with academic knowledge when they finish their studies. What they are short of is the hands-on skills, work experience and vocational Certificates. Typically, China’s academic-oriented education system leads to ‘high scores, low capabilities’. The QMEA’s organisational mode might be a useful means for reforming the current educational system in China and making better student outcomes from school to work.

This research is also applicable to the reform of English language education in China. In Queensland, the aim of its education and training reforms in terms of policy,
curriculum and teacher professional learning is for students’ smoother and better transition from school to work, that is a better destination or pathway. This is what the reform of English language education lacks in China. Universities in China provide their students with a large number of courses which present huge amount of knowledge and theoretical information. However, it is questionable how much of it is useful for the graduates’ success in the transition to work or realising other preferred outcomes. A work-related, destination-oriented approach to English language education may offer a potential means for realising the desired outcomes of China’s reforms in this field.

Benefits of learning different research methods

I have benefited greatly from doing this doctoral study. The research methods I learned about collecting and analysing data equip me with skills and knowledge for further collaborative research in China. More importantly, with this knowledge and skills I will be better able to teach my Masters students how to do research in the education and/or linguistics fields. Learning to write refereed journal articles is another benefit that I value much. All of this is conducive to my future as an early career researcher.

Learning to do Western research

From the beginning of doing this doctoral study, I was trained step by step to do it in a flexible and interpretive way, from doing the Confirmation of Candidature (CoC) through writing different Chapters to finalising the thesis. In addition to writing journal articles that report the key findings noted above, the following recommendations are made to provide an agenda for extending the research reported in this thesis. During the process, I developed my research capabilities by comparing my prior research practices to this style of research trying to grasp the advantages of each and working to merge them into a ‘blended’ research strategy which can contribute much to my future research and teaching in China. The research plan for the future is addressed in the next section.
10.5 Recommendation for extending this research

The limitations of this research leave me with more to do in the future. A longitudinal research of the organisational changes in schools as a result of VETiS is planned so as to track changes occurring over the next five years and the improvement being made.

To further investigate organisational changes in Senior Learning, the large archive of interview evidence will be further analysed to triangulate it with other primary evidence used in this research and publish it in refereed journal articles.

Publication is always the aim for disseminating most research. With regard to the five evidentiary chapters in this thesis, each of these will be revised to create a series of refereed journal articles. For these publications additional evidence will be included as warranted to explore different dimensions of organisational changes.

It is possible to extend QMEA’s hub-and-spoke organisational mode to a study of the hub-and-spoke mode of internationalising education. With the globalisation of higher education through collaboration between and among universities in both Australia and China, a study of this mode of organisation would provide insights into cosmopolitanism.

10.6 Reflections

The incorporation of these reflections in this Chapter gives due recognition of the dual outcomes of producing a thesis, namely making an original contribution to knowledge, and producing a beginning researcher. Green (2005, p. 151) argues that a thesis needs “to be grasped as fundamentally a ‘practice producing subjects’, as much implicated in the production of identity [i.e. beginning researchers] as in the production of knowledge”. Therefore, it is necessary and important to incorporate my reflections for doing this study in this Chapter. Of many possible reflections this section addresses three.
Confucian and Socratic philosophies

There always exists the gap in expectations between international students and their Western supervisors when they seek further education in the Western countries. I am no exception. I was educated and trained in “Confucian philosophy – collectivist educational traditions which emphasise learning as a one-time process for the young as a collective group” (Kingston & Forland, 2008, p. 1). I learned to respect the others’ ideas, theories and philosophies by memorising them as a way of developing a deeper understanding and through frequent use of them in my research writing. However, this style of learning and research differs from that of Western educators who are (supposedly) educated and trained in “Socratic philosophy, individualist educational traditions, which emphasises learning as a lifelong process for individuals” (Kingston & Forland, 2008, p. 1). In some instances the contrast is made to suggest Confucian education encourages plagiarism and is seen as equivalent to surface learning and superficial research. This perception leaves me in an awkward situation when doing research in Australia. I had to set aside my own stereotyped ideas about doing research and to learn Western ways of doing it. This process of ‘giving up and picking up’ was a tough test of my capabilities for accepting, learning and adjusting to differences in research and research styles. I started from the very beginning to learn Western research by doing the literature review and learning to make direct quotations. During this process, I kept switching from my own way to the ‘new’ way and vice versa; occasionally tried to match the two but failed most of the time. After more than two years of hard work and struggle, I gradually came onto the ‘right’ track, coming more or less closer to a Western research style. To my surprise when my thesis took its final form, I found most of my prior research style matched what I had learned in the West, but differing in the ways of managing it.

I found the same components of the thesis, same way of reviewing the literature, same way of collecting the data, similar ways of analysing the data and generating conclusions. Thus, I found Kingston and Forland’s (2008) claims to be stereotypes of imagined differences, lacking any substance with respect to the research processes in which I engaged. The apparent difference between the two is that after I set the research question or hypothesis, I would not revise it based on the evidence as is possible and necessary in a flexible research design (Robson, 2002). I tried to test the
question or hypothesis qualitatively and/or quantitatively by analysing the data collected. Based on the test results I summarised the research findings and drew conclusions. I called this research fixed design, a question-driven or hypothesis-driven approach. In Australia, I learned to do data-driven research, that is, the research question could be revised based on what the data analysis revealed about the possibilities for making an original contribution to knowledge (Bohm, 1996). The ideas from the literature review and theoretical concepts were also used to test the data, and vice versa. In essence, there is no substantial difference between my research in China and the West, but a difference in approach and development of it.

In this sense, I believe the Western educators may not fully understand the complexity and superiority of my educational tradition. This is an obstacle for globalising higher education since more and more international students from Confucian educational background come to seek higher education in the Western countries. Without understanding the role of cultural heritage embedded in a particular cultural framework, internationalising higher education cannot achieve the goal of providing quality education for all. This research experience left me thinking about merging so-called Eastern and Western learning and researching styles, to make advantages of both by creating a ‘hybrid’ style which is suitable to both educational traditions.

**Understanding plagiarism**

International students from Confucian educational backgrounds are often considered as plagiarists (Kingston & Forland, 2008). Is this a moral issue or an educational one? When I started to summarise the literature I reviewed, I used my own words to present the main idea from each article. My supervisor told me I needed direct quotations and provide citation details from the researchers’ ideas so as to engage in an intellectual conversation and showed me how to do it. More than this I learned the importance to drafting the literature review and theory chapters in a way that provided a compilation of direct quotations which I could later use in the analysis and interpretation of evidence. However, I was totally at a loss as to what to do initially. I started to doubt my prior understanding of a literature review. I was confused and thinking that if I drew too many direct quotations from one article, this
could be plagiarism. I struggled with this issue for some time until I read one module of the on-line course, *Postgraduate Essentials*, and came to know what plagiarism is and how to avoid it. I gradually understood the issue of plagiarism and the importance of citations and references. Thus, I believe plagiarism is an educational issue, not a moral one. It is very important and imperative for the Western educators to teach international students the importance of appropriate citation and referencing techniques, take time to demonstrate these techniques to them and give them exercises to practise. I am sure by doing so, any international student from Confucian educational tradition can be educated to do it right. As a matter of fact, plagiarism is not restricted to international students from Confucian educational background because native students experience similar problems (Kingston & Forland, 2008). Moreover, plagiarism is also frowned on in the home countries with Confucian background, such as China where people are severely punished if they are found to be plagiarists. Therefore, it is unfair to label the international students from Confucian educational background plagiarists without teaching them the appropriate techniques.

*Benefits and possible collaboration in the future*

I was asked to consider what benefits I might take back to China after I finish my research in Australia. I asked myself the same question, too. The benefits I gained by doing this research are multiple. These included the ready availability and ease of access to a rich data base; valuable research facilities and a strong research culture that included the opportunities to attend numerous seminars, training workshops, and conferences; regular one-on-one supervisory tutorials and timely feedback from my supervisor, and proper funding for research. All these helped to enhance my capabilities in doing research. Thus, I can take the following benefits back to China. First, it is possible and obligatory for me to teach my Masters students what I have learned by doing this research in Australia, such as research methods, establishing theoretical framework, integrating the literature in the interpretation of the evidence, and how to reference and use citations appropriately. Second, I can be a co-author writing some research articles with my supervisor for publication either in education or linguistics. Third, it will also be possible to do collaborative projects about cosmopolitanism and globalising higher education with my supervisor in Australia.
Finally, there is the potential for the joint training of PhD students between my university and the University of Western Sydney. These research collaborations will need support from different agencies to make them a reality, but all are possible and desirable.
REFERENCES


## APPENDIX 1

### The Occupations in Demand List

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<tr>
<th>Occupation</th>
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<tr>
<td>Computer Professional of the IT occupations - only if you have and can evidence substantial skills and experience in one or more of the following: CISSP, C++ / C# / C, Data Warehousing, Java, J2EE, Linus, Net technologies, Network Security / Firewall / Internet Security, Oracle, PeopleSoft, SAP, SIEBEL (especially Siebel Analytic), Solaris, Unix</td>
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<tr>
<td>Toolmaker</td>
<td>4113-11</td>
</tr>
<tr>
<td>Tree Surgeon</td>
<td>4623-15</td>
</tr>
<tr>
<td>Vehicle Body Maker</td>
<td>4215-11</td>
</tr>
<tr>
<td>Vehicle Painter</td>
<td>4214-11</td>
</tr>
<tr>
<td>Wall &amp; Floor Tiler</td>
<td>4416-11</td>
</tr>
<tr>
<td>Welder (1st Class)</td>
<td>4122-15</td>
</tr>
</tbody>
</table>
APPENDIX 2

Interview Questions

(School principals and VET coordinators)

1. What has your school organised or is organising to create opportunities for students to do both work and study?
2. How do teachers, parents, students and employers regard these efforts to integrate earning and learning?
3. What have the students in the school achieved through combining learning and earning?
4. What have been the important factors in this achievement?
5. What organisational arrangements were necessary to make this happen?
6. What is the opinion of teachers, students, parents and employers about students doing VET while at school?
7. Is VETiS having a positive or negative impact on students’ study/achievement?
8. What organisational innovations have been involved in these reforms to Years 10, 11 and 12?
9. What organisational innovations have been implemented to make it possible for students to integrate both school and work?
10. What organisational innovations has this school employed to attract students to participate in VETiS programs?
11. What pedagogical and philosophical innovations inform the school’s implementation of VETiS ideas or to provide a better employment for VETiS participants?
12. Who else do you think I should talk to in order to get more information? Could you please provide their contact details?
13. What documents do you have in this area? Are there other documents you would recommend about the achievements and happening?

Interview questions

(Employers)

1. Do you have VET student from schools in your business/industry? How is this organised?
2. What is the role of these VET students in your business/industry?
3. What do you look for from these students as prospective workers?
4. What is your view on students undertaking VET while at school?
5. How do students use their VET studies in your industry to design their future career? Do they continue with the job they are learning in your business/industry? Is this good or bad?
6. How many employees in your business/industry are VETiS graduates? Why do they join the industry or not?
7. How do students perform in your business/industry? What is your opinion of the performance of these school VET students?
8. What is the contribution of VETiS to their performance in your business/industry?
9. Do you give priority to employing VETiS graduates? Why? Or why not?
10. What organisational innovations have been implemented to enable students (a) to undertake work experience and (b) have a better transition from school to work?
11. Who else do you think I should talk to in order to get more information? Could you please provide their content details?
12. What documents do you have in this area? Are there other documents you would recommend about the achievements and happening?

**Interview questions**

(Graduates over 18 years old)

1. What is your age?
2. How long have you graduated from high school?
3. What certificates have you obtained?
4. What are you doing at present?
5. Did you do VET while you were in school?
6. What kind of VET studies did you do while at school?
7. Is the job you are doing now relate to the VET studies you did while in school? Why or why not?
8. Did what you learned in VET make any contribution to your current job? If so how?
9. What do you think of doing VET while studying?
10. What suggestions can you give to those who are doing VET while in school now?
11. What innovations or change in Years 10, 11, 12 and VET in Schools helped you? How? Why?
12. What organisational innovations have been implemented to enable students (a) to undertake work experience and (b) have a better transition from school to work?
14. Who else do you think I should talk to in order to get more information? Could you please provide their content details?

15. What documents do you have in this area? Are there other documents you would recommend about the achievements and happening?

## Interview questions

(QMEA Officials)

1. How would you describe the organisation of QMEA?
2. What is the difference between the ‘hub and spoke’ model and ‘Gateway model’? What is a hub and what are the spokes?
3. How is QMEA engaged in the member schools? In what way? How many schools are under QMEA?
4. How do the schools represent their involvement in QMEA?
5. What strategies does QMEA use to engage schools, students and teachers? What role does scholarships, awards etc play in this?
6. How sustainable is QMEA? What about recurrent funding for the QMEA?
7. What is students’ and teachers’ evaluation of their involvement in QMEA?
8. Organisationally, is the QMEA like, Agribusiness, Construction and Building, Manufacturing and Engineering, Wine Tourism a ‘hub and spoke’ model?
9. What evidence is there of the QMEA’s role in students’ transition from school to full time work/training and/or education?
10. Who else do you think I should talk to in order to get more information? Could you please provide their content details?
11. What documents do you have in this area? Are there other documents you would recommend about the achievements and happening?
APPENDIX 3

Invitation Letter

Dear Sir/Madame,

My name is Guihua Cui, a visiting scholar from China, doing doctoral studies in the University of Western Sydney. I am doing a research project *Re-organising School Communities to Support Work-integrated Education and Training: A case study of innovations in Senior Learning*. I would like you to offer the information needed for this research. In order to investigate what innovations have been made I need you to provide some information on it by interview, either personally or through telephone/Skype/email to talk about your views on this topic. Your participation is very important to the project, yet voluntary. Your views on this topic will be kept confidential. Your participation will make a great contribution to the research. Look forward to your response and participation.

Yours sincerely

Guihua Cui

PhD candidate
Centre for Educational Research
College of Arts
University of Western Sydney
Tel: 02 4736 0459
Mobile: 0416839652
Email: g.cui@uws.edu.au
Participant Information Sheet (General)

An information sheet, which is tailored in format and language appropriate for the category of participant - adult, child, young adult, should be developed.

Note: If not all of the text in the row is visible please ‘click your cursor’ anywhere on the page to expand the row. To view guidance on what is required in each section ‘hover your cursor’ over the bold text. Further instructions are on the last page of this form.

Project Title: Re-organising School Communities to Support Work-integrated Education and Training: A case study of innovations in Senior L/earning

Who is carrying out the study?

You are invited to participate in a study conducted by Guihua Cui, a PhD candidate of Centre for Educational Research. Her principal supervisor is Professor Michael Singh, associate supervisor is A/Professor Wayne Sawyer and adjunct supervisor is A/Professor Roberta Harraveld.

What is the study about?

This study is about the organizational innovations in Senior Learning. Specifically it focuses on the development of Vocational Education and Training in Schools (VETiS) programs in Queensland secondary education in order to develop a better understanding of the articulation of school-based and work-integrated education and training.

What does the study involve?

The study involves interviews to school principals and/or headteachers, officers of educational departments, employers and VETiS graduates. During the interviews you will be asked semi-structured, open-ended questions on your attitudes, ideas,
experience, opinions and/or suggestions about organizational innovations in Senior Learning.

How much time will the study take?

The time allocated to conduct each interview is about one hour.

Will the study benefit me?

The study will benefit Senior learners and schools in general in the long run.

Will the study involve any discomfort for me?

No discomfort.

How is this study being paid for?

There is no payment for participating in the interview. The interview will be undertaken in a place available to the participants.

Will anyone else know the results? How will the results be disseminated?

All aspects of the study, including results, will be confidential and only the researchers will have access to information on participants. The findings of the study will be included in a PhD thesis. Related findings may be submitted for publication, but individual participants will not be identifiable in such a thesis or publication.

Can I withdraw from the study?

Participation is entirely voluntary: you are not obliged to be involved and - if you do participate - you can withdraw at any time without giving any reason and without any consequences.

Can I tell other people about the study?

Yes, you can tell other people about the study by providing them with the chief investigator’s contact details. They can contact the chief investigator to discuss their participation in the research project and obtain an information sheet.

What if I require further information?

When you have read this information, Guihua Cui will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact Guihua Cui, PhD candidate on -2-4736 0459.

What if I have a complaint?
This study has been approved by the University of Western Sydney Human Research Ethics Committee. The Approval number is H 6625.

If you have any complaints or reservation about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel 02-4736 0083 Fax 02-4736 0013 or email humanethics@uws.edu.au. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you will be asked to sign the Participant Consent Form.
APPENDIX 5

Participant Consent Form

This is a project specific consent form. It restricts the use of the data collected to the named project by the named investigators.

Note: If not all of the text in the row is visible please 'click your cursor' anywhere on the page to expand the row. To view guidance on what is required in each section 'hover your cursor' over the bold text.

Project Title: Re-organising School Communities to Support Work-integrated Education and Training: A case study of innovations in Senior L/earning

I,…………………………, consent to participate in the research project titled: The Articulation of School and Work-based Education and Training: A case study of organizational innovations in Senior Learning.

I acknowledge that:

I have read the participant information sheet and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

I consent to the interviews through audio/video tape recording.

I understand that my involvement is confidential and that the information gained during the study may be published but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher/s now or in the future.

Signed: ______________________

Name: ________________________

Date: _________________________
Email on behalf of the UWS Human Research Ethics Committee

Dear Michael and Guihua

I'm writing to advise you that the Human Research Ethics Committee has agreed to approve the project.

**TITLE:** The articulation of school and work-based education and training: A case study of organisational innovation in senior learning

The Protocol Number for this project is **H6625**. Please ensure that this number is quoted in all relevant correspondence and on all information sheets, consent forms and other project documentation.

Please note the following:

1) The approval will expire on **1 March 2011**. If you require an extension of approval beyond this period, please ensure that you notify the Human Ethics Officer (humanethics@uws.edu.au) prior to this date.

2) Please ensure that you notify the Human Ethics Officer of any future change to the research methodology, recruitment procedure, set of participants or research team.

3) If anything unexpected should occur while carrying out the research, please submit an Adverse Event Form to the Human Ethics Officer. This can be found at [http://www.uws.edu.au/research/ors/ethics/human_ethics](http://www.uws.edu.au/research/ors/ethics/human_ethics)

4) Once the project has been completed, a report on its ethical aspects must be submitted to the Human Ethics Officer. This can also be found at [http://www.uws.edu.au/research/ors/ethics/human_ethics](http://www.uws.edu.au/research/ors/ethics/human_ethics)

Finally, please contact the Human Ethics Officer, Kay Buckley on (02) 4736 0883 or at k.buckley@uws.edu.au if you require any further information.

The Committee wishes you well with your research.

Yours sincerely

Dr Janette Perz,
Chair, Human Research Ethics Committee
## APPENDIX 7

### Profile of interviewees

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Title</th>
<th>Date of interview</th>
<th>Interview venue</th>
<th>Length of interview</th>
<th>Length of transcript</th>
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<tbody>
<tr>
<td>Thomas Informant 1</td>
<td>School Principal</td>
<td>04/08/09</td>
<td>St Edmund’s Ipswich</td>
<td>32 Ms</td>
<td>15 Ps</td>
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<td>John Informant 2</td>
<td>School Principal</td>
<td>05/08/09</td>
<td>St George Nudgee College</td>
<td>57 Ms</td>
<td>19 Ps</td>
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<tr>
<td>David Informant 3</td>
<td>School Principal</td>
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<td>Clayfield C Gregory St</td>
<td>24 Ms</td>
<td>11 Ps</td>
</tr>
<tr>
<td>Allan Informant 4</td>
<td>VET Coordinator</td>
<td>04/08/09</td>
<td>St Edmund’s Ipswich</td>
<td>40 Ms</td>
<td>18 Ps</td>
</tr>
<tr>
<td>Pearl Informant 5</td>
<td>VETiS Coordinator</td>
<td>05/08/09</td>
<td>Clayfield C Gregory St</td>
<td>47 Ms</td>
<td>25 Ps</td>
</tr>
<tr>
<td>Adelaide Informant 6</td>
<td>VETiS Coordinator</td>
<td>06/08/09</td>
<td>BAMA SSC</td>
<td>30 Ms</td>
<td>10 Ps</td>
</tr>
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<td>Sophie Informant 7</td>
<td>VETiS Coordinator</td>
<td>04/08/09</td>
<td>St Edmund’s Ipswich</td>
<td>15 Ms</td>
<td>6 Ps</td>
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<td>Maggie Informant 8</td>
<td>Regional Partnership Manager</td>
<td>04/08/09</td>
<td>Manufacturing Skills Qld</td>
<td>85 Ms</td>
<td>36 Ps</td>
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<tr>
<td>Paul Informant 9</td>
<td>Partnership Manager</td>
<td>06/08/09</td>
<td>Level 133 Mary Street Brisbane</td>
<td>49 Ms</td>
<td>23 Ps</td>
</tr>
<tr>
<td>Jean Informant 10</td>
<td>Partnership Manager</td>
<td>06/08/09</td>
<td>Level 133 Mary Street Brisbane</td>
<td>81 Ms</td>
<td>35 Ps</td>
</tr>
<tr>
<td>Abraham Informant 11</td>
<td>Industry Representative</td>
<td>07/08/09</td>
<td>Stoddart Manufacturing Company</td>
<td>58 Ms</td>
<td>24 Ps</td>
</tr>
<tr>
<td>Jane Informant 12</td>
<td>Industry Representative</td>
<td>04/08/09</td>
<td>St Edmund’s Ipswich</td>
<td>45 Ms</td>
<td>21 Ps</td>
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<tr>
<td>Edward Informant 13</td>
<td>VETiS Graduate</td>
<td>04/08/09</td>
<td>Kressi’s Café 100 Edward Street</td>
<td>41 Ms</td>
<td>18 Ps</td>
</tr>
<tr>
<td>Rose Informant 14</td>
<td>Director Assistant</td>
<td>09/08/09</td>
<td>McDonald’s Mc Café Rockhampton</td>
<td>45 Ms</td>
<td>12 Ps</td>
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<tr>
<td>Margaret Informant 15</td>
<td>Centre Manager</td>
<td>11/08/09</td>
<td>RICK Youth Justice Service Centre</td>
<td>50 Ms</td>
<td>32 Ps</td>
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<tr>
<td>Karen Informant 16</td>
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<td>RICK Youth Skills Centre</td>
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<td>35 Ps</td>
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<td>Informant</td>
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<td>Date</td>
<td>Location</td>
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<td></td>
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<tr>
<td>Mary</td>
<td>Consultant</td>
<td>03/08/09</td>
<td>ACPET office, Queen Street, Brisbane</td>
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<tr>
<td>William</td>
<td>Principal/CEO</td>
<td>03/08/09</td>
<td>ACPET office, Queen Street, Brisbane</td>
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</tbody>
</table>
APPENDIX 8

PD initiatives offered by QMEA schools with no apparent VETiS connections

<table>
<thead>
<tr>
<th>School</th>
<th>Professional learning initiatives (2007-2008)</th>
</tr>
</thead>
</table>
| MARO   | * ICT- Increasing numbers of teachers confident in using Microsoft Office Suite and increasing numbers of teachers attaining the Pedagogical License.  
* Student Welfare - Strategies for teachers to ensure effective management of the classroom environment to allow for greater engagement of students  
* Curriculum Development - Includes the successful embedding of new senior syllabi but also ensuring MARO was actively engaged in the QCAR framework.  
* Leadership - In-kind programs run in the school called ‘Aspiring Leaders’ and programs for leadership development for the school management team  
* Literacy and Numeracy - whole school approaches were developed and implemented with staff trained in applying these practices in their classrooms.  
* ICT- Increasing numbers of teachers confident in using Microsoft Office Suite and attaining the ICT Certificate and Pedagogical License.  
* Student Welfare - Strategies for teachers to ensure effective management of the classroom environment to allow for greater engagement of students  
* Curriculum Development - Included the successful embedding of new senior syllabi but also ensuring MARO was actively engaged in the QCAR framework.  
* Leadership - In-house programs run in the school called 'Aspiring Leaders' and programs for leadership development for the school management team |
| RICK   | * Leadership tool-kiting  
* Team building  
* ICT training  
* Conversational coaching  
* Contemporary teaching and learning styles  
* Leadership tool-kiting  
* Team building  
* ICT training  
* Conversational coaching  
* Contemporary teaching and learning styles |
| TOAL   | The involvement of the teaching staff in professional development activities during 2007 was 100% with key activities in the Middle Phase of Schooling, particularly around aligning curriculum, planning, assessment and reporting through the A3 Planner and Essential Learnings.  
* Implementation of Queensland Curriculum Assessment and Reporting initiative,  
* Embedding Indigenous Perspectives, Effective Learning and Teaching Processes,  
* Queensland Studies Authorities Updates and Training  
* Preparation for the National Assessment Program for Literacy and Numeracy |
| ALAN   | * Literacy  
* ICT  
* Middle Years of Schooling  
* Success for Boys  
* Indigenous Education  
* Gifted and Talented Education  
* Queensland Certificate of Education  
* Developing performance framework  
* literacy; numeracy  
* dimensions of learning  
* gifted education |
| KAN    | In 2007 major staff development was carried out in the areas of Habits of Minds, Dimensions of Learning, School Wide Positive Behaviour Support Program and Essential Skills for Classroom Management. Each Department also provides specific professional development based on the particular focus of their discipline.  
* Dimensions of Learning – a world best practice, school-wide approach to teaching |
that focuses on a research-based understanding of how students learn
· International Mindedness – strategies to embed intercultural and international perspectives authentically across the school curriculum
· Positive Behaviour Support – a school-wide approach to responding effectively to student behaviour, with a focus on establishing clear expectations and rewarding good conduct
· Information Technology – continued enhancement of teachers’ innovative use of technology in the classroom and piloting the state-wide implementation of One School software

<table>
<thead>
<tr>
<th>PEER</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Introduction and implementation of School-Wide Positive Behavioural Support program</td>
</tr>
<tr>
<td>• Christine Richmond “Behaviour Management Minimalism”</td>
</tr>
<tr>
<td>• QSA Initiatives and updates</td>
</tr>
<tr>
<td>• First-Aid and CPR Training</td>
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<td>• Beginning Teachers Initiatives</td>
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<table>
<thead>
<tr>
<th>MERA</th>
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<tbody>
<tr>
<td>• Attendance at external professional development and training conferences, seminars and workshops.</td>
</tr>
<tr>
<td>• Internal professional development and training seminars and workshops.</td>
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<tr>
<td>• Internal induction and training programs.</td>
</tr>
<tr>
<td>• Membership of professional associations.</td>
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<tr>
<td>• Peer Learning Circles</td>
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<tr>
<td>• Behaviour Management</td>
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<tr>
<td>• Inclusive Education Queensland</td>
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<tr>
<td>• KLA/ Subject Specific</td>
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<tr>
<td>• Leadership</td>
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<tr>
<td>• Learning Support</td>
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</tbody>
</table>
APPENDIX 9
Student main post-school destinations for years 2008, 2009, 2010
School

Uni

Cert Cert Cert Ap
IV
III
I-II

Tra

WFT WPT

SW

PINI 08
PINI 09
PINI 10
KAN 08
KAN 09
KAN 10
LONY 08
LONY 09
LONY 10
MARO 08
MARO 09
MARO 10
PEER 08
PEER 09
PEER 10
DASY 08
DASY 09
DASY 10
MERA 08
MERA 09
MERA 10
BATER 08
BATER 09
BATER 10
BOLA 08
BOLA 09
BOLA 10
RICK 08
RICK 09
RICK 10
TOAL 08
TOAL 09
TOAL 10
NOA 08
NOA 09
NOA 10
NANA 08
NANA 09
NANA 10
BAMA 08
BAMA 09
BAMA 10
VELA 08
VELA 09
VELA 10
ALAN 08
ALAN 09
ALAN 10
MIST
ALIK

2007 graduates were all successfully employed during 2008
16.2
4.0
3.0
3.0
32.3
6.1
12.1
14.1
7.1
15.6
3.1
1.6
1.6
17.2
7.0
18.8
15.6
18.0
22.4
5.2
1.7
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12.9
9.1
25.4
13.8
6.5
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12.3
1.5
1.5
4.6
30.8
18.5
13.8
10.8
4.6
10.9
3.2
1.6
4.8
31.7
14.3
7.9
11.1
3.2
17.2
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16.7
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8.6
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ng
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6.7
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23.3
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2.8
4.2
7.0
12.7
5.6
26.8
14.1
9.9
23.0
n/g
1.6
8.2
11.5
3.3
14.8
21.3
14.8
19.4
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2.1
11.3
2.1
24.7
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12.1
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7.0
25.9
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11.9
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NS VET
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ng
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0.5
2.1
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ng
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n/g

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29.2
31.6
26.9
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22.2
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28.8
30.1
n/g
n/g

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## APPENDIX 10

### Document file

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<td>ALIK</td>
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Dear Ms Cui

Thank you for your application seeking approval to conduct research titled “Effective Models of School Communities Supporting Work-based Education and Training: A case study of innovations in Queensland’s Senior Learning” in Queensland State schools. I wish to advise that your application has been approved.

This approval means that you can approach principals of the schools nominated in your application and invite them to participate in your research project. As detailed in the department’s research guidelines:

- You need to obtain consent from the relevant principals before your research project can commence.
- Principals have the right to decline participation if they consider that the research will cause undue disruption to educational programs in their schools.
- Principals have the right to monitor any research activities conducted in their facilities and can withdraw their support at any time.

Approval is also conditional on your compliance with the following:

- Checking the department’s standard “Terms and Conditions of Approval to Conduct Research” in departmental sites which is available at http://education.qld.gov.au/corporate/research/terms_conditions.doc.

- In accordance with these terms and conditions, at the conclusion of your study, you are required to provide this Office (and any participating schools, principals or managers of other departmental sites) with a summary of your research results and any associated published papers or materials in hard copy. You are also requested to submit the documents in electronic format, or, if possible, provide a link to an online location. Electronic copies can be sent to research.stratpol@dtech.qld.gov.au. Failure to provide a report on your research will preclude you from undertaking any future research in Queensland State schools.

Please note that this letter provides approval to invite principals to participate in the research project as outlined in your research application. This approval does not constitute ethics approval or support for the general and commercial use of an intervention or curriculum program, software program or other enterprise that you may be evaluating as part of your research.
Should you require further information on the research application process, please feel free to contact Dr Karen Barnett, Senior Research Officer, Policy Planning and Performance on (07) 3238 3176. Please quote the file number 55927/831 in future correspondence.

I wish your study every success.

Yours sincerely

[Signature]

Dr John Dungan
Director
Strategic Research
Policy Planning and Performance
Trim ref: 09/103694