

**Science and Mathematics Education Centre**

**Factors Determining the Effectiveness of Online  
Access to the Curriculum for Students at Risk**

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**This thesis is presented for the Degree of  
Doctor of Science Education  
of  
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## **Declaration**

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

Signature: \_\_\_\_\_

Date: 4<sup>th</sup> August, 2003

## ABSTRACT

This thesis reports a longitudinal study that investigated the factors affecting at-risk students' use of an online curriculum delivery mode for some Year 11 subjects. The study examined the skills and attitudes of the students during their online learning experience, and followed the teachers while they developed suitable teaching methods to be able to deliver their subject via online learning. Importantly, the students in the study were at risk of not completing subjects in the South Australian Certificate of Education (SACE) if some kind of curriculum intervention was not applied.

Access to the school curriculum can be problematic for some young people for a variety of reasons, including a limited subject choice, an inability to attend programmed classes and exhibiting behaviour that is deemed to be inappropriate by school authorities. Students in this study were not able to study the subjects they wished because of timetable clashes, were not able to attend school regularly for personal reasons or had exhibited negative behaviour to their teachers and peers preventing them from attending certain classes. At the time of the study, all the students wished to complete their SACE, but limited access to the curriculum was likely to prevent this from occurring. The study used qualitative methods of data collection including interviews with students and teachers, analysis of students' work, electronic communications and other documents, and records of meetings. These were used to prepare case studies for each of the seven students involved. While the student sample was small, the varied personal experiences of the students in the study enabled the examination of many of the characteristics documented in the literature as those being associated with at-risk youth.

All the students involved in the study completed the NetLearning Project (NLP) unit(s) they had enrolled in, but each encountered different challenges. The case studies provided data that enabled identification of the characteristics students required to be successful online learners. Three clusters of factors relating to personal situations (reason for entry to the program, access to a home computer and continuity of schooling), skill factors (level of ICT and English literacy skills), and attitude to learning (willingness to persist and level of self-directedness) were identified as major contributors to students' ability to complete their units. The teacher case studies revealed that the characteristics required for teachers to operate effectively within the

online learning environment include an ability to promote positive teacher-student relationships, a high level of ICT skills, good subject knowledge and curriculum understanding. In addition, teachers required initiative, persistence and collaborative skills. The findings of the study highlight the importance of attitudinal factors in determining the students and teachers success in the online environment and suggest that teacher-student relationships have a major impact on student learning outcomes, just as they do in the traditional classroom.

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## GLOSSARY OF TERMS

ABS - Australian Bureau of Statistics

AISSA - Association of Independent Schools of South Australia

CMC - Computer Mediated Communication including e-mail and chat facilities

E-mail - The software system that allows one computer to transmit a message to another remote computer over an Intranet or the Internet

ICT - Information Communication Technology

CEO - Catholic Education Office of South Australia

DETYA - Commonwealth Department of Education, Training and Youth Affairs  
(now DEST - Department of Education, Science and Training)

DETE - South Australian Government Department of Education, Training and  
Employment

FSS - Full Service Schools is a term used in Canada and Australia to describe schools that develop collaborative links between education, community and health services

FTE - Full Time Equivalent student number involves calculating the students' total study load in an educational institution and expressing this as a fraction of one.

Online - a term indicating that a computer is linked to the Internet and able to communicate with other computers worldwide.

NCREL - North Central Regional Educational Laboratory located in the US

NEPS - National Equity Program in Schools, a Commonwealth Government education initiative of the mid to late 90s.

NESB - Non-English Speaking Background is a term used to describe students whose first language is other than English.

SACE - South Australian Certificate of Education

School Card Scheme - A DETE funded scheme to assist low income families access educational facilities.

SSABSA - Senior Secondary Assessment Board of South Australia

STAR 1 - The first SSABSA Student at Risk Project

STAR 2 - The second SSABSA Student at Risk Project

TER - Tertiary Entrance Rank is calculated from five Stage 2 SACE subjects and used by universities for student selection.

TAFE - The Department of Technical and Further Education

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## CHAPTER 1

### INTRODUCTION

This study addresses the problems students have accessing curriculum when they cannot attend school regularly by investigating the use of online curriculum delivery. The research is set in Muirden Senior Secondary College where the units offered are based on the Senior Secondary Assessment Board of South Australia's (SSABSA) curriculum frameworks. This study concerns students and the online units that have been offered by the College in the first stage, Stage One, of the two year South Australian Certificate of Education (SACE) award. To place the study in context, the first section of the chapter presents an overview of the current education scene in South Australia and the basic framework involved in gaining the SACE. To appreciate the unique setting of the research, descriptions of the College, the composition of the student body and the learning environment are included. An explanation of the evolution of the curriculum intervention strategy teachers at the College developed to assist students at risk of not completing the SACE follows. The chapter continues with the research questions, an overview of the method used in the research and the significance of the study. It concludes with an overview of the structure of the thesis.

#### The Education Scene in South Australia

At the time of this study, the Education Act of South Australia demanded that all young people in South Australia aged between 6 and 15 years be enrolled in and attend school. Although students are usually 15 years of age when they complete Year 10, there is no requirement to finish a specific level of schooling before a student can leave. A student wishing to leave school before 15 years of age may seek an exemption by the State Minister for Education from complying with this section of the Education Act. Only 8% of 15-year-olds are not in full time education (personal communication, November 28, B.Gill, Department of Education, Training and Employment (DETE), 2002) and they may be studying part-time or have left school altogether.

Most students entering Year 11 will turn 16 years old during that year, which means that senior secondary education (Years 11 and 12) caters for students who are beyond the age of compulsory school attendance. Of the cohort of students who began Year 8 in 1998, 80% remained in school at 16 years of age, and only 54% at age 17 in 2002 (personal communication, November 28, B. Gill, DETE, 2002). Even though these figures are for full-time students only and do not include the increasing number of post-compulsory age students who are choosing to study part-time, this represents a dramatic decline in retention beyond the compulsory years. The retention rate varies across schools, however, and the non-government schools have traditionally enjoyed a much higher retention rate than the State Government schools.

#### *The Senior Secondary Assessment Board of South Australia (SSABSA)*

SSABSA is an independent statutory authority of the State Government of South Australia, serving the Year 11 and Year 12 students of the three school sectors: the Association of Independent Schools of South Australia (AISSA), the Catholic Education Office (CEO), and the Department of Education, Training and Employment (DETE). SSABSA has a 27-member Board, with representatives from the school sectors, universities, the Accreditation and Registration Council, parent associations, employers, unions, and the Commissioner for Equal Opportunity. A full-time staff of approximately 70 helps schools and teachers to implement the Board's curriculum and assessment policies. At the post-compulsory level, SSABSA is responsible for awarding the SACE. This is an internationally recognised credential awarded to students who successfully complete their senior secondary education.

#### *The South Australian Certificate of Education*

The SACE was introduced in 1992 as a two-year certificate of completion replacing the one-year Year 12 SSABSA Certificate of Achievement. The SACE offers units of study at two levels, Stage One (usually Year 11) and Stage Two (usually Year 12). The SACE results are reported using three levels of student achievement:

SA - Satisfactory Achievement - the student has completed the majority of the summative assessment tasks to a reasonable standard (as defined by the individual subject area) and has met the objectives of the unit.

RA - Recorded Achievement - the student has attempted some of the

summative assessment items, but has not met all of the objectives of the unit.

RNM - Requirements Not Met - the student has not submitted work for summative assessment and has not met the objectives of the unit.

To qualify for the SACE, a student must record achievement in 22 approved units of study, including at least 6 units (three 2-unit sequences) at Stage Two level, attaining satisfactory achievement in at least 16 of the 22 units. In addition, they must satisfy the writing-based literacy assessment (WBLA). Appendix A contains the publication *Welcome to the SACE*, which illustrates the pattern of subjects students must complete and summarises the assessment included within the SACE.

The traditional method for students to complete their schooling and the SACE in two years is illustrated in Figure 1.1 below. It involves the student undertaking 12 units of study in Stage One (Year 11) with 6 units in each of the two semesters, and completing these at a SA level in one calendar year. In the following calendar year, the majority of students attempt five 2-unit sequences (full year subjects) at Stage Two (Year 12) level, the equivalent of ten SACE units, because five 2-unit sequences are required to obtain a Tertiary Entrance Rank (TER) and be eligible to apply for university entry. Thus a student who wishes to complete school and gain their SACE need only complete three 2-unit Stage Two subjects, whereas if they wish to enter university, they must complete five 2-unit Stage Two subjects and gain the appropriate TER to gain acceptance into their chosen course. The implication of the university policies is that many students, in order to satisfy university entrance requirements, continue with a SACE Stage Two enrolment after they have gained the SACE.

### *Flexibility Within the SACE*

There is an increasing number of students who are not choosing to complete the SACE using the traditional model outlined in Figure 1.1, but who are exploiting the flexibility that exists in the SSABSA policies governing the conditions under which the SACE must be completed and allows them to choose a way of completion that suits them. Students who left school early, are at least 18 years old, have not had a SACE enrolment for one year and wish to re-enter school are eligible for status under the “adult” rule. These students are granted “block status” for 12 Stage One units of the SACE and are considered to have completed the Stage One pattern requirements. The adult rule is based on the assumption that during the time a person

was not engaged in schooling, they were gaining skills and knowledge from activities outside of school comparable to those learned in Stage One of the SACE. In general, students' applications for status are completed as soon as students re-enrol at a school and with this status they can complete the SACE in one calendar year.

#### Stage One (Year 11)

|   |   |                              |  |                       |                       |
|---|---|------------------------------|--|-----------------------|-----------------------|
| English or English as a Second Language<br>1 unit | Arts/ Humanities/ Social and Cultural Studies (Group 1)<br>1 unit | Australian Studies<br>1 unit | Mathematics/ Science/ Technology (Group 2)<br>1 unit | Free choice<br>1 unit | Free choice<br>1 unit |
| English or English as a Second Language<br>1 unit | Arts/ Humanities/ Social and Cultural Studies (Group 1)<br>1 unit | Mathematics<br>1 unit        | Mathematics/ Science/ Technology (Group 2)<br>1 unit | Free choice<br>1 unit | Free choice<br>1 unit |

#### Stage 2 (Year 12)

|                                    |                                    |                              |                                       |                              |
|------------------------------------|------------------------------------|------------------------------|---------------------------------------|------------------------------|
| Free choice<br>1 unit <sup>a</sup> | Free choice<br>1 unit <sup>a</sup> | Stage 2<br>Language Rich     | Stage 2<br>Quantitative/ Experimental | Stage 2<br>Any other Stage 2 |
| Free choice<br>1 unit <sup>a</sup> | Free choice<br>1 unit <sup>a</sup> | (Group 1)<br>2-unit sequence | (Group 2)<br>2-unit sequence          | 2-unit sequence              |

<sup>a</sup>These must be Stage 2, 2 unit sequences if a TER is required.

Figure 1.1 - Traditional model of the SACE

Perhaps the most flexible aspect about the SACE qualification is that there is no time limit applied by SSABSA to complete the requirements. A student will continue to have units they have successfully completed added to their student record until they meet the SACE requirements. This removes the need to attain successful completion of Year 11 and Year 12 over two years of full-time study. However, a



time constraint applies to students who wish to use the SACE completion and their Stage Two subject achievement scores to enter university. To be eligible to have their results converted to a Tertiary Entrance Rank (TER) a student must complete five two-unit Stage Two SACE subjects classified by the universities as Higher Education Selection Subjects (HESS), over three years of study.

## The College

Muirden College is an independent, coeducational senior secondary college located on King William Street, the city's main thoroughfare, approximately 600m from the Adelaide General Post Office. William Muirden established the College in 1900 as a secondary school to provide a general education to young South Australians who were mainly pursuing careers in the business area. The College quickly became well known for producing students who had high levels of clerical and administration skills, and most students gained employment upon leaving the College. The College also conducted evening classes for adults in subjects such as Accountancy and had a large correspondence school, offering a wide range of subjects to people who could not attend day or evening classes. In 1970, the College structure changed from a family business to a public company, with a Board of Directors to oversee the general financial management and a Principal who managed the day-to-day financial and educational business of the College. A separate Business College was formed at this time, allowing the College to expand the academic curriculum for students in Years 8 – 12 while still offering the skills-based subjects of shorthand and typing. In 1981, a separate campus was formed to accommodate Year 12 students in an adult learning environment. The curriculum offerings at the "Matriculation College" were academic in nature and were intended to enable students to enter university. In 1993, another re-structure occurred, stimulated by decreasing student numbers at the secondary school and the introduction of the SACE. Years 8 to 10 were phased out and the College became a senior secondary college offering a broad selection of the SACE Stage One and Two units.

### *Students at the College*

Because the College is readily accessible by public transport, students come from all parts of Adelaide and outlying areas. The wide geographical catchment area

of the College leads to a diverse socio-economic and cultural mix within the student body. Most students are at least 15 years of age when they enrol in Year 11, but with re-entry students encouraged to enrol, the average age is closer to 19 years. Student numbers fluctuate around 100, with up to one-quarter studying part-time, that is, at least one unit less than a full time load. Generally, more girls than boys attend the College, with most of the re-entry students being girls aged between 16 and 30 years old. Students may enrol directly from other Independent, Catholic and the DETE schools, or leave the workforce to resume full time study. Others remain in the workforce part-time and resume full-time study, or choose part-time work and part-time study. A small group of students re-enter school because they have been unable to find suitable employment after leaving school. Over recent years, the enrolments have included an increasing number of students living in poverty, and who are eligible for state government assistance through the School Card Scheme. This scheme provides financial support to the student and the school in which the student is enrolled when either the parent(s) receive full family welfare payments from the Government funded Centrelink, or the student is receiving full Youth Allowance payments.

I am the full-time Principal of the College and have a significant teaching load attached to the administration load. There are ten part-time teachers and one school assistant. Because the staff number is small, the teachers are responsible for both Stage One and Two subjects in their teaching area, and do not have other teachers with whom to discuss their specific subject. As a result, my role includes assisting with the development of curriculum and assessment plans in each subject with the subject teacher. A professional development program exists to support teachers, involving their attendance at SSABSA subject conferences, the funding of membership and participation in the various professional subject associations, such as the South Australian Science Teachers Association. Teachers are also encouraged to develop links with teachers in nearby schools to share ideas and resources. Most of the teachers have either completed higher degrees in education or are working towards them, resulting in a staff with interest and experience in educational research.

The learning environment of the College is friendly and supportive, possibly aided by the physical nature and location of the school, which is a large, two-story Victorian bluestone villa fronting the main street of Adelaide. All of the staff know each student by name and generally greet the students when they see them in the

school, thus ensuring that students feel they belong to the College community. The large library contains computer work stations for students to use during free lessons and teachers often sit in the library during their breaks to do their marking, encouraging casual conversations to occur between students and the teachers. Through this interaction, the students become used to the teachers being part of their non-classroom school environment and seem to be more willing to seek help from them. All teachers are responsible for study skills, English literacy and basic numeracy, so students are encouraged to seek assistance from any teacher. Thus students can establish a broad base of support, rather than just seeking guidance from their classroom teachers. This also helps alleviate the problem of part-time teachers not always being available for students with problems. Another key factor contributing to the positive student-teacher relations at the College is that three of the key teachers, including the business area teacher, the English teacher and me, had taught together at the Matriculation College before the formation of the current senior secondary college. In the environment of the Matriculation College, we were able to enjoy the positive interactions that occur between older, post-compulsory age students, and were keen to preserve this environment in the new school structure. These teachers modelled particular ways of interacting with senior students in an adult learning environment to other teachers, demonstrating how to be flexible in the delivery of their teaching programs, and so enhance student-learning outcomes.

By having the whole staff involved with the student body, teachers can discuss any problems they may be having with a student and gain feedback on what strategies may or may not work in dealing with the student. In turn, the students enjoy the freedom of being able to choose those from whom they seek support. If either a teacher or student raises an issue that has not been resolved through open discussion, then I may intervene and discuss the complaint with the student during a more formal student meeting, or a formal student interview where notes are taken. When an issue arises concerning student-teacher conflict, then another teacher to whom the student relates may be asked to attend the meeting as the student's advocate, and I act in the role of facilitator. This strategy is also used for student-student conflict resolution. Parents are contacted when a problem cannot be resolved and further action may be required, or when there has been a serious breach of the College Behaviour Code.

### *The SACE at the College*

As the Principal of a small school, I conduct the course counselling and track each student's achievement in the SACE. With the aid of the teaching staff, I have developed a yearly counselling and reporting cycle, which allows the early detection of students who may be at risk of not completing a SACE unit(s). The majority of students are successful in Stage One completion and continue on to Stage Two in their final year of schooling. Some students wish to study part-time, and this involves the design of a program of study that will eventually lead the student to complete Stage One with completion of the SACE taking more than the traditional two-year timeframe.

The students who find the SACE completion difficult are those dealing with a range of personal issues. These may include physical or mental illness, poverty, family responsibilities, the demands of full-time or part-time work, the after-effects of crime, a history of school failure, and a loss of faith in schooling. Those whose peer, work, family and community life-styles may beckon more strongly than that of the College environment may find it easy to leave. During 1998/99, approximately 60% of the students studying at the College were either engaged in paid work, expected to contribute to the family business or involved in the care of younger siblings. All these activities reduce the time a young person has to attend school and create tension between the need to gain an education and to fulfil other responsibilities.

Re-entry students face even greater tensions between family and work commitments and school attendance than those students who have not left school. Having left school early without completing suggests that their school histories are likely to contain negative events, and they may hold these negative thoughts into their new school experience, even though on re-entry they believe they have the required motivation to succeed and complete the SACE.

### The College and the SSABSA Student-at-Risk Projects

One of the main functions of the SSABSA Board is to undertake or commission research, and publish the results of such research as it thinks fit. As a direct result of the Board's previous research, *The SACE Completion Report* (SSABSA, 1997), the Board initiated the Students At Risk of Not Completing the SACE (STAR 1) research project in 1998, followed by STAR 2 in 1999 – 2000.

These research projects were part of the Board's commitment to its SACE Improvement Strategy. A survey of the SACE coordinators and other key personnel conducted by SSABSA early in the data collection for *Leaving school early without credentials: As many reasons as students* (SSABSA, 1999), discovered that schools were already using strategies to help students stay at school thus prompting the action research model which formed the basis of the STAR 1 project.

The terms of reference of the STAR 1 project were to:

- Work collaboratively with schools, and schooling authorities, to identify curriculum and assessment strategies, consistent with the Curriculum and Assessment Policy, which have emerged from research evidence and school experience as assisting students to attain the SACE;
- Explore, test, and trial new ideas and strategies for granting equivalence for outcomes achieved against the SACE;
- Recommend to the Board, through the Equity and Education Standing Committee, curriculum and assessment strategies, which might encourage students at risk of not completing the SACE to do so.

(SSABSA Board paper - agenda Item 6.1 Document No: B162 – 12/98-B)

In many studies, poverty has been linked to student success at school and school completion. An underlying assumption made by the SSABSA researchers was that schools with a high level of students living in poverty would have a large proportion of the student population at risk of not completing the SACE and as a result would either have practices in place to encourage students to complete, or would be prepared to initiate and trial possible options for these students. SSABSA set loose criteria to identify schools for selection in the STAR 1 project. They were required to have a high percentage of School Card students enrolled, and have the ability within the staff to undertake school-based action research.

A balance of school sector representation was also a requirement of the SSABSA Board, with four State Government, one CEO and one AISSA school. Each school determined its own research project and researchers from the University of South Australia and SSABSA staff worked in collaboration with the school to ensure a flow of ideas and feedback occurred.

### *STAR 1 and the College*

Since 1995, the College has had approximately 40% of its students eligible for the School Card scheme, and thus satisfied the basic criteria set by SSABSA for STAR 1 project involvement. In addition, the only curriculum offered was SSABSA-approved SACE subjects. When the College was invited to participate in the project, the specific intervention strategy that would be explored needed to be decided. At a College staff meeting in June 1998, teachers decided to trial online learning in at least one unit in Semester Two in what was to become known as the NetLearning Program (NLP). The idea of online units had been discussed early in 1998 at the College Board level, and curriculum development had begun in an Economics unit in Semester One of 1998, but involvement in the STAR 1 project gave the college financial support and the staff motivation to begin working on their individual units.

#### *The NetLearning Program*

Since the formation of the senior secondary college in 1993, irregular attendance by students had been an increasing problem, with many students requiring a style of schooling different to classroom attendance. Teachers were finding many students who were missing lessons could not catch up the missed content, and generally performed poorly in assessment tasks. Over time, repeated failure in assessment tasks led to the student dropping a unit or withdrawing from school altogether. The teachers thought that offering a limited range of units online to students who could not attend school regularly would assist them to stay connected with the College and complete units to count towards the SACE.

The main function of the NLP was to act as a repository for the curriculum of each NLP unit, with the entire unit materials, including teaching content, references and assessment tasks, available on the Internet for students to work on whenever and wherever they could. "Attendance" would become redundant because students could work at their own pace, without missing content or assessments. The benefits teachers could see were that modifications to content and assessment material could be made easily and individual learning programs constructed. The linking of learning resources such as specific web sites for particular assignments or content sections would encourage student-led learning rather than teacher-led learning. The self-pacing by the student through the curriculum would allow for differences between students to be accommodated, such as background knowledge and skills, and learning

styles. The NLP was accepted as a suitable intervention for the STAR 1 project and the first online unit was offered in Semester Two of 1998.

### The Research Questions

The research conducted in this study aimed to investigate the effectiveness of the NLP in assisting students to complete units of the SACE. The general research question asked, “What factors determine the effectiveness of students’ online access to the SACE curricula?” The particular focus of the study was to determine those factors that affected students’ ability to succeed in the online learning environment. However, while the study was primarily centred on the students’ personal biographies and learning, their need for positive teacher-student relationships led to an analysis of the teacher factors that supported students in the online environment. Thus, the specific research questions became

1. What are the individual factors that allow students to be successful in the online learning environment?
2. What are the teacher factors that support students in the online learning environment?

### Research Design

The study was conducted in two phases over two years, with Phase One and Phase Two similar in design. Data collection focussed on the seven students undertaking a NLP unit in this time and the three teachers who developed the online curricula. The research design was longitudinal and built around the seven case studies of students and the teachers who had participated in the NLP. The case study approach was chosen because it was intended that the student histories and observed behaviour would provide the necessary detail to identify the factors that determine student success in the online environment and highlight the complexities of social relationships within the school. Qualitative data were gained from interviews with students and teachers and analysis of student’s work and communications.

In Phase One of the research, data were collected in association with the SSABSA STAR 1 project. STAR 1 involved school-based action research to determine the effectiveness of strategies that selected schools used to assist students,

particularly those from disadvantaged groups, to complete the SACE. Data collected from the three participating students and one teacher during 1998 were used to inform the College NLP team about the effectiveness of the strategy and direct modifications which might be made about the content and structure to improve future student learning outcomes. Phase Two was an extension of Phase One. It involved a new group of four students, the introduction of five new units and continued to involve the Phase One teacher, but also introduced two new teachers to the NLP. Again, the data were collected from interviews with students and teachers, analysis of work and communications between the teachers and students.

### Limitations

The limitations of the study are derived from its scope. The study concentrated on students and teachers in only one school, allowing detailed information to be obtained about the factors that affected student access to, and success in using, the online curriculum. It is likely that other schools and teachers may take a different approach to online curriculum. The sample size was small although it included all of the participant students and teachers over the two years of the study. However, the students involved in the study possessed a wide range of personal characteristics typical of students at risk of not completing the SACE and consistent with characteristics identified from research in other parts of Australia and overseas. Even so, it is clear that the findings will not be generalisable, firstly, because the teachers volunteered to be involved in the study, and had high levels of motivation and interest in the NLP, and secondly, because of the teachers' high level of commitment, they were more willing to persist through difficult times when students were not progressing well. Further, as noted, I am Principal of this school and although the steps taken to minimise the consequential threat to validity are explained later, it remains a limitation to the study.

### Significance

This study is significant, firstly because it offers and evaluates an innovative curriculum solution through the development of the NLP for secondary school students who may not be able to attend scheduled classes. The teachers believed that



many academically able students were leaving school simply because they could not access the curriculum at a time and in a way that suited them. Secondly, the study is significant because it provides information on the types of students that may benefit from online curriculum delivery, and, in addition, the attributes those students must have if they are to experience success in this learning mode. In particular, the focus here is on high school students whereas nearly all the current research has been conducted at the tertiary level.

Thirdly, in a time of rapid ICT integration into mainstream schooling, the study will have implications for teaching practice, noting the characteristics that a teacher requires to be proficient in online curriculum development and teaching. The need for teachers to develop advanced ICT skills is highlighted but ways of improving these skills is beyond the scope of this study. Even so, the study may aid teachers who are already teaching in the online environment to evaluate their own strengths and weaknesses, and inform school administrators who are researching alternative strategies for at-risk students about the possibilities for use of online delivery.

Finally, this study will have implications for schools and other agencies wishing to construct or modify school-based intervention programs for students at risk of not completing the SACE. In this context, the study is significant because it aims at getting students back in school and is designed to increase participation in academic programs which is a different approach to many existing programs which are employment or community-based learning programs.

### Overview of the Structure of the Thesis

The literature review in Chapter 2 includes a description of the educational context of the study, the nature of students at risk of leaving school early and the strategies which aim to reduce the numbers of students who do not complete school. The features of online learning are discussed and how online learning may provide a possible solution for students at risk is discussed in Chapter 3. The method for both phases of the study is described in Chapter 4, and this chapter also includes a section describing my role as researcher in the study. In Chapter 5, the seven student case studies are presented, with a synthesis drawing the cases together and identifying the factors that determined student success in the NLP. Chapter 6 presents the cases of the two main teachers in the NLP, and concludes with a synthesis highlighting the

characteristics required by teachers to be successful in the online environment. The summary of the study and conclusions and implications for students, teachers, school administrators and education policy makers are contained in Chapter 7.

## CHAPTER 2

### LITERATURE REVIEW PART 1: THE COMPLETION OF SCHOOLING AND STUDENTS AT RISK

This literature review is presented in two chapters. The first chapter addresses the issues of retention, completion and the educational context, allowing for discussion about the factors that tend to put students at risk of non-completion and the characteristics of programs that have been developed to assist these students. The second chapter describes the development of online learning and its characteristics and considers the potential of online learning to promote completion of the SACE for students at risk.

This chapter begins with definitions of the concepts “retention” and “completion” and examines the levels of completion of, and retention and participation in, the SACE. Next, the government’s shift in policy to promote completion of a high school certificate is discussed, together with an explanation of why the issue of non-completion is of concern to education policy makers and government. The notion of “student at risk” is then described, introducing the varied factors that may place students at risk of leaving school early. The features of schools and the programs they offer that are identified in the literature as increasing at-risk student involvement and achievement in the school curriculum are defined and discussed, leading into an exploration of how schools can reduce alienation of students.

#### Participation in and Completion of the SACE

There has been much interest in post-compulsory schooling outcomes over the past few years fuelled by falling retention rates and high levels of youth un- and under-employment across Australia, as evidenced by Dusseldorp Skills Forum (1999), Dwyer (1996), Finn (1991), Lamb, Dwyer and Wyn (2000) and Mayer (1992). The fall in retention coincided with the introduction of the SACE in South Australia and gave rise to suggestions from educators that the structure of the SACE may have been a factor in students’ decisions not to continue with their secondary schooling (Estimates Committee Hearing, June 1995 as reported in SSABSA Board Paper B139-12/95-E). Subsequent research has shown that these events were not

necessarily linked (SSABSA, 1997, 1999). The phrase “retention rate”, often quoted in the literature when issues such as school participation and youth unemployment are being discussed, refers to the apparent retention rate. Strals (2001) defines the apparent retention rate as the number of full-time students in Year 12 in any year, expressed as a percentage of the number who started secondary schooling 5 years earlier.

Politically, retention rates are statistics that can be manipulated and used to criticise current government youth policy if the rate is low, and support policy if the rate is high. Rarely are the complex issues that surround the retention rate statistics discussed in conjunction with their use. Strals (quoted in SSABSA, 1999) warns, “users should bear in mind how the rate is calculated. They should be aware that many factors may contribute to fluctuations in the rate” (p. 3). Retention rate statistics are used for comparisons between states and at a national level, but the factors that affect the numbers of full-time students in Year 11 and 12 and the differences in determining a full-time load in different states are rarely acknowledged. For example, the statistics do not account for students who study part-time and adult re-entry students, both of which occur in greater numbers in South Australia due to the flexibility of the SACE, migration interstate and the differences between the states in determining a full-time load (B. Gill, DETE, personal communication, November 28, 2002). Figure 2.1 contains the apparent retention rates calculated by the Australian Bureau of Statistics (ABS) for States and Territories from 1991 - 2001 using three statistics, full-time students, full-time equivalent (FTE) and persons. It can be seen from Figure 2.1 that valid comparisons between each state can only be made provided the factors contributing to the final percentage are acknowledged.

Examination of data in Figure 2.1 from 1995 to 2001, when all three categories have been included, reveal that the actual percentage of students engaged in schooling is much higher in South Australia than those only in full-time study. For example, in 1998, the time of the first phase of this study, the apparent retention rate was 66.7% for full-time students, but increased to 81.3% when individual students were counted. This indicates a 14.6% difference between the two figures, telling quite a different story about the numbers of students engaged in some level of Year 12

Figure 2.1 - Australian Schools – Year 8 to Year 12 Apparent Retention Rates by States and Territories, 1991-2001.

|         | NSW  | VIC  | QLD  | SA    | WA   | TAS  | NT   | ACT  | AUST |
|---------|------|------|------|-------|------|------|------|------|------|
| 1991    |      |      |      |       |      |      |      |      |      |
| F/T     | 61.4 | 75.7 | 79.6 | 83.5  | 71.1 | 52.6 | 57.5 | 95.6 | 71.3 |
| FTE     | 61.4 | 75.7 | 83.8 | 89.6  | 74.3 | 55.9 | 59.0 | 95.9 | 72.9 |
| 1992    |      |      |      |       |      |      |      |      |      |
| F/T     | 68.5 | 81.1 | 85.0 | 92.7  | 72.8 | 60.2 | 56.7 | 97.2 | 77.1 |
| FTE     | 68.5 | 81.5 | 89.7 | 101.2 | 75.6 | 64.4 | 59.6 | 97.4 | 79.1 |
| 1993    |      |      |      |       |      |      |      |      |      |
| F/T     | 70.6 | 79.1 | 82.9 | 86.3  | 75.6 | 60.6 | 47.5 | 94.2 | 76.6 |
| FTE     | 70.6 | 79.4 | 86.1 | 95.1  | 79.3 | 68.9 | 52.5 | 94.4 | 78.6 |
| 1994    |      |      |      |       |      |      |      |      |      |
| F/T     | 70.4 | 77.3 | 78.8 | 81.7  | 73.4 | 58.3 | 42.9 | 93.3 | 74.6 |
| FTE     | 70.6 | 77.8 | 81.0 | 91.3  | 76.2 | 65.7 | 47.8 | 93.4 | 76.5 |
| 1995    |      |      |      |       |      |      |      |      |      |
| F/T     | 69.1 | 75.0 | 76.3 | 71.4  | 71.2 | 59.7 | 42.7 | 91.1 | 72.2 |
| FTE     | 69.7 | 75.6 | 78.4 | 82.0  | 73.7 | 67.4 | 45.6 | 91.2 | 74.2 |
| Persons | 70.1 | 76.6 | 82.0 | 89.8  | 76.6 | 78.1 | 49.9 | 91.2 | 76.4 |
| 1996    |      |      |      |       |      |      |      |      |      |
| F/T     | 67.7 | 75.3 | 76.5 | 68.4  | 70.7 | 53.1 | 41.0 | 91.3 | 71.3 |
| FTE     | 68.5 | 76.0 | 78.5 | 77.3  | 72.8 | 60.1 | 45.4 | 91.3 | 73.2 |
| Persons | 69.1 | 77.1 | 81.9 | 84.4  | 75.3 | 70.9 | 50.5 | 91.4 | 75.5 |
| 1997    |      |      |      |       |      |      |      |      |      |
| F/T     | 67.2 | 76.3 | 77.9 | 66.9  | 71.6 | 58.6 | 42.0 | 91.6 | 71.8 |
| FTE     | 68.4 | 77.2 | 80.5 | 75.0  | 73.5 | 64.7 | 43.7 | 91.7 | 73.9 |
| Persons | 69.1 | 78.2 | 84.3 | 81.5  | 76.2 | 72.1 | 49.0 | 91.7 | 76.1 |
| 1998    |      |      |      |       |      |      |      |      |      |
| F/T     | 67.2 | 75.9 | 77.3 | 66.7  | 71.1 | 62.1 | 42.9 | 91.0 | 71.6 |
| FTE     | 69.0 | 76.7 | 78.0 | 74.4  | 72.9 | 70.2 | 47.9 | 91.1 | 73.6 |
| Persons | 69.8 | 77.8 | 79.3 | 81.3  | 75.1 | 79.7 | 51.8 | 91.2 | 75.4 |
| 1999    |      |      |      |       |      |      |      |      |      |
| F/T     | 67.6 | 76.2 | 77.5 | 67.0  | 71.5 | 66.7 | 52.9 | 92.5 | 72.3 |
| FTE     | 69.4 | 77.1 | 78.5 | 73.9  | 73.3 | 77.6 | 59.6 | 92.6 | 74.4 |
| Persons | 70.2 | 78.2 | 80.2 | 80.6  | 75.1 | 92.6 | 64.4 | 92.6 | 76.4 |
| 2000    |      |      |      |       |      |      |      |      |      |
| F/T     | 67.5 | 77.2 | 77.3 | 65.4  | 71.3 | 69.5 | 49.7 | 87.1 | 72.3 |
| FTE     | 69.4 | 78.3 | 78.3 | 73.8  | 72.8 | 81.6 | 53.6 | 87.1 | 74.5 |
| Persons | 70.2 | 79.2 | 79.8 | 80.4  | 74.5 | 91.7 | 55.8 | 87.2 | 76.2 |
| 2001    |      |      |      |       |      |      |      |      |      |
| F/T     | 68.2 | 79.3 | 79.0 | 66.4  | 72.0 | 68.7 | 50.9 | 89.3 | 73.4 |
| FTE     | 69.3 | 80.5 | 79.9 | 74.8  | 74.1 | 81.6 | 55.6 | 89.3 | 75.6 |
| Persons | 70.2 | 81.7 | 81.3 | 81.3  | 77.0 | 94.8 | 59.4 | 89.4 | 77.6 |

The calculation of Year 12 apparent retention rates using FTE uses Year 7 and 8 full-time enrolments. i.e., 2001 FTE Year 12 apparent retention rates in NSW, VIC, TAS, ACT equals Year 12 FTE enrolments in 2001/ Year 7 full-time enrolments in 1996. 2001 FTE Year 12 apparent retention rates in QLD, SA, WA, NT equals Year 12 FTE enrolments in 2001/Year 8 full-time enrolments in 1997.

schooling. The decline in participation seen in all figures since 1992 has stimulated the concern from policy makers and educators.

Other statistics available to examine the outcomes of schooling in the South Australian context are the SACE participation and completion data. To gain an insight into the numbers of young people participating in the SACE, the 15- to 19-year-old age population cohorts are compared by the SSABSA researchers to those who received a Stage One or Stage Two result in a given year. Some students participating in the SACE are outside this age range, and others within the age cohort may be involved in non-SACE programs but are still in school, for example, those completing the International Baccalaureate, are not included in the statistics. These statistics indicate that the percentage of students who received a SACE Stage One result has increased from 18.9% in 1992 when the SACE was first introduced, to 26.7% in 1997, the year before the NetLearning Project commenced. These data include part-time students who may have completed only one unit.

#### *Shift in Government Policy Focus from Retention to Completion*

Dwyer (1996) explains that there has been a marked shift in government policy regarding “retention” with the focus now on “completion”. “Non-completion” in Australia, as defined by Lamb et al. (2000), refers to the number of young people who do not complete Year 12 and, most importantly, do not gain their Year 12 certificate. It includes a broad group of young people who do not continue at secondary school beyond Year 10 and Year 11, as well as those who leave during Year 12, without obtaining a Year 12 certificate. The term “early school leavers”, as used by several authors (Dwyer, 1996; Morris, 1995; Webber & Hayduk, 1995), describes young people who leave school either before or on completion of Year 10. The years of compulsory schooling in South Australia in 2001 are from age 6 to 15 years. Young people, on attaining their 15<sup>th</sup> birthday may legally leave school, regardless of the school year they are in.

Dwyer (1996) describes the change in Commonwealth government policy from a retention focus in the 1980’s to a completion focus in the 1990’s, and raises the issue of the importance of facilitating movement of students from the compulsory

years of schooling into post-compulsory education. Australia's low participation in post-compulsory education by international standards triggered a range of government enquiries, including *The Finn Report* (1991) recommending the establishment of targets for participation in post-compulsory education. Target One stated that by 2001, 95 per cent of 19-year-olds are participating in Year 12, or have completed Year 12, or have completed Year 10 or 11, will be participating in some formally recognised education and training; or have completed Year 10 or 11 and have completed some formally recognised education and training (Finn, 1991). Dusseldorp states in his foreword to *How Young People Are Faring* (2000) that, in terms of upper secondary school completion, in 1999, Australia ranks behind most other OECD countries. Lamb et al. (2000) describe that over the past 20 years, non-completion [of Year 12] rates have fallen from 60% in the early 1980s to 41% in the late 1980s and 24% in the early 1990s. However, current research is indicating that non-completion is on the rise again. Curtain (2000) comments that in 1999 the "threshold education level" specified by the Australian government as being completion of Year 12, was not attained by nearly 17% of 19-year-olds, and that, in terms of basic educational coverage in OECD countries, this is poor. Dusseldorp Skills Forum (1999) compares these non-completion data to national retention rates over the same period (remembering these rates are based on full time students completing Year 12), revealing that the historic high was recorded in 1992, with 77.1%, but fell to 71.3% in 1996.

As a result of recommendations made by the Finn report, Commonwealth Government funded projects including the National Equity Program in Schools (NEPS) and the Full Service Schools Program (FSS), were instituted to improve retention and completion in schools where these levels were low (DETYA, 2001a, 2001b). Even as early as 1980, the Commonwealth Government through the Commonwealth Schools Commission reported on the need for the "adaptive school" in *Schooling for 15- and 16-Year Olds*, and the "flexible secondary school" of *In the National Interest* in 1987 (Dwyer, 1996).

The trends indicated in the completion rates across Australia are evident in South Australia. Each state in Australia has its own completion award and in South Australia, completion refers to gaining the SACE. The shift in focus to completion has also been evident in SSABSA research since the mid 1990's, where the emphasis has been on strategies that enable students to complete their SACE rather than simply

participate in the SACE (SSABSA, 1999).

### *Why Are the Levels of Non-Completion a Concern?*

Lamb et al. (2000) explain that higher levels of non-completion are of concern to education policy makers and governments, because it is recognised that young people who fail to complete Year 12 can experience difficulty in making the transition from school to post-school education, training, and employment. This has wide implications for the community because these are the young people more likely to experience extended periods of unemployment than those who do complete Year 12, and those non-completers who do succeed in finding work are more likely to obtain jobs in a narrow field of occupations. Non-completers are also more likely to be reliant on government income support. DETYA (2001c) report on these negative social costs by describing “losses in tax revenue and an increase in social welfare including administration costs, decreased health status and associated costs in the provision of health care, increase in costs for crime prevention and protection, reduction in community connection” (p. 3).

Students may make “optimistic decisions to leave school”, a term Dwyer (1996) and Webber and Hayduk (1995) use to describe students who leave school early because they have been offered full-time employment, or other education or training. But, because these students have had the least amount of schooling, many of them are likely to be vulnerable to economic and social change. Of greater concern are those non-completers who leave school to take on part-time work. Employment of this nature can be short-term and casual, and if not supplemented by family or government support, does not provide a basis for sustaining a livelihood, nor does it necessarily provide pathways for future employment or training. In 1992, in response to the increasing numbers of students leaving school and being under-employed, the Commonwealth Government initiated research resulting in *Putting General Education to work: The Key Competencies Report*, more generally known as *The Mayer Report* (1992). The purpose of this research was to identify and define employability skills to enable schools to integrate learning goals in their curriculum to facilitate the transition of students from school into the workforce. These skills, known as the key competencies, have since been embedded in senior secondary curriculum. The Prime Minister’s Youth Action Plan Taskforce (2001) suggests that the early work initiated by the Mayer Report needs to be strengthened and recommends *A National*



*Commitment to all Young People*, being a charter which underpins and sustains young people's transition to independence.

To study the effect of new government initiatives and programs, research is required to measure changes in young people's activities. Much of the research conducted in the area of early school leaving and non-completion is for this purpose and consists of analysis of Australian Bureau of Statistics data from publications such as the annual *Schools Australia* report. This data set includes retention rates and other information concerning the activities of young people, such as those numbers engaged in full-time, part-time, casual work and full-time or part-time school or other training. This information can be broken down into states and districts, and then by an individual's characteristics, such as gender, ethnicity and socio-economic background. Researchers can then use the information to examine trends and patterns in data to paint a general picture of what these different groups of young people are doing, and draw comparisons between different groups. At a national level, the *How Young People are Faring* series (Curtain, 1999, 2000, 2001, 2002) is an example of this type of research and in 2002, in its fourth year, provides a longitudinal analysis of retention data and post-school pathways of young people. Lamb et al. (2000) in *Non-Completion of School in Australia* provides an example of a single research report examining three different sets of data collected from a sample of Year 10 students in 1980 and 1981, 1988 and 1989, and 1992 and 1993. Other detailed research has been undertaken to discover the individual pathways young people may follow through different parts of the training system and entry into labour markets, how they discover their choices and the role that schools play in their pathway choice, with the reasons behind these choices being important if identification and solutions to the problems that lead to non-completion are to be found. *Building Relationships: Making Education Work* (DETYA, 2001), *Leaving School Early Without Credentials* (SSABSA, 1999), and *Leaving School Early* (Webber and Hayduk, 1995), are examples of research of this type, where individual student stories are told. These young people who do not complete schooling are thus termed to be "at-risk".

#### *Responses of Schooling Authorities to Improve Completion Rates*

The response of SSABSA to falling levels of school completion in South Australia has been to commission research into the complex area of student participation and achievement in the SACE. The results of the *SACE Completion*

*Project Report* (SSABSA, 1997) was one piece of evidence that spurred the SSABSA management group to ensure that efforts be made to improve the chances of all students participating in the SACE to complete it, and thus explore why students leave school early. The “Students at Risk of Not Completing the SACE” (STAR 1 and 2) project was one way that SSABSA attempted to discover what was happening to students at the school level and the strategies schools use to improve participation in the SACE. It was through the STAR 1 project that Muirden College became involved in research into the evaluation of strategies that may help students stay at school longer.

Since the introduction of the SACE into South Australia in 1993, there has been a shift in the structure of secondary schooling in the state. In recognition of the different learning needs and environments that adult re-entry and 16- to 18-year-old post-compulsory students require, DETE began establishing senior secondary colleges. These colleges replaced the “Matriculation Colleges” that had been in operation under the auspices of Technical and Further Education (TAFE) colleges for many years, catering for the adults who wished to finish school and enter TAFE or University. The independent education sector responded to the growing community demand for senior secondary colleges, with Eynesbury College being established in 1993 and Muirden College changing its focus to become a Senior Secondary College in 1993. The features that both DETE and independent institutions possess are that they operate differently to traditional high schools by providing an adult learning environment similar to TAFE institutions. The level of support offered to the students varies considerably according to the ethos and size of each College.

However, even though senior secondary colleges have been set up by government and independent providers specifically to cater for the needs of the 16- to 18-year-old cohort and adult re-entry students, some authors believe this model is not ideal. Senior secondary colleges, according to MacKenzie and Chamberlain (1995), are not able to assist students in the area of welfare as effectively as high schools, because the ethos of the institutions emphasises student independence. They state, “there is less personal attention and monitoring of students than in high schools, and if students need assistance they are expected to ask for it” (p. 25). MacKenzie and Chamberlain (1995) refer to a welfare coordinator’s comments from a city Senior Secondary College, “I cannot keep up with what happens to them. I lose young people all the time. There are always so many new cases to deal with. Sometimes it’s

almost too much to take” (p. 25). However, Batten and Russell (1995) suggest that one strategy schools need to employ to increase student retention is to have separate schools or campuses for senior schools, but they do recommend the inclusion of more counselling, guidance and pastoral assistance for all students.

Another source of change for education in South Australia is that the Education Act came under review in 2000, with one of the changes to take place from 2003 being to increase the school leaving age to 16 years old. This could effectively increase the participation of young people in schooling, but may not lead to increased Year 12 completion, because most students engaged in Year 12 studies are 17 years of age or older when they complete Year 12. To develop strategies to assist students to stay in school and complete Year 12, the South Australian Government in 2002 formed the Social Inclusion Unit which involves the input of other state government departments including Health and Community Services, in addition to DETE (M. Sanderson, DETE, personal communication, November 28, 2002).

The pattern of government supporting school practices that encourage more students to participate and complete secondary schooling evidenced locally is a global phenomenon. Withers and Batten (1995) review programs for students at risk of not completing school in the US, Canada and UK and indicate that a wide range of strategies to improve participation and completion of students have been implemented and are continuing to be developed by schools. In the US, the North Central Regional Educational Laboratory (NCREL) (NCREL, 2001) and the National Drop Out Prevention Centre (Dunkenfield, 2000; Kronick & Hargis, 1990) are two government funded centres charged with the task of developing strategies to help schools manage early school leavers. In 1994, the US Congress, concerned about poor participation and outcomes for students in many areas of the country, created a “National Institute on the Education of At-Risk Students” (Office of Educational Research and Improvement, 1999). The aim of this institute is to support a range of research and development activities designed to improve the education of students at risk of educational failure because of limited English proficiency, poverty, race, geographic location or economic disadvantage. This approach is focused on assisting schools and their teachers to improve learning outcomes for at-risk students.

The term “low performing schools” is often used in the UK literature to refer to schools where student results and participation are low. These issues are treated as school level problems, with teachers either gaining bonuses if they have their students

perform well in national testing, or the teachers may be removed from the school and re-trained if their students' results are poor. Funding for schools is also linked to the performance of students in various forms of national tests where in some instances, extra resources are provided to the schools where performance is poor or the opposite scenario, with resources being reduced (McBer, 2000). This approach has not been used in Australian schools.

### What Is "At-Risk"?

The term "at-risk" is a generic phrase used throughout the literature when discussing young people who are deemed to be suffering from some kind of deficit linked to poor or under-performance. Withers and Russell (1998) define at risk as being a concept of vulnerability, that is, a young person at risk is one who is in danger of experiencing something adverse. The U.S. Congress defines an "at-risk student" as one who – because of limited English proficiency, poverty, race, geographic location, or economic disadvantage – faces a greater risk of low educational achievement or reduced academic expectations (U.S. Department of Education, 1999). Another US definition, given by Hixson and Tinzmann (1990), states "historically, at-risk students were primarily those whose appearance, language, culture, values, communities, and family structures did not match those of the dominant white culture that schools were designed to serve and support" (p. 1). Hixson (1993) defines the term with a national focus in response to the 1981 publication of *A Nation at Risk*, as "the continuing pattern of inadequate performance by a significant proportion of our children – children we have come to define as being 'at risk'" (p. 1). Gaines, Johnson and King (1996) and Kyle, Schmitz and Schmitz (1996) take the concept of at risk to apply to the technology "have-nots". They state "they are most often female, handicapped, minority, disadvantaged and urban. They are less academically able, more kinaesthetic learners" (p. 2). Hixson (1993) makes an interesting statement regarding the way we view the problems associated with at-risk students. She states "students are not at risk, but are placed at risk by adults" (p. 1).

Similar definitions exist in the Australian literature referring to the level of risk young people may find themselves in. Mapstone (1999), in his evaluation of the youth program established by the Swan Education District in Western Australia, *Making the Difference*, uses slightly different phrasing to describe at-risk students,

referring to them as “Students at Educational Risk”. He refers to those students of compulsory school-age who are at risk of not achieving the major learning outcomes of schooling; have achievement levels, rates of progress and behaviours noticeably different from their own past performance or those of their peers; or are under-achieving; or are not participating in school. The Victorian Department of Education and Training also uses this phrase, students at educational risk, and defines the term to mean “those at risk of not achieving success at school. These students may be found at any level of both primary and secondary school” (Education Victoria, 1998).

Other definitions are used when discussing post-schooling pathways into further education and the workforce. Curtain (2000) describes in *How Young People Are Faring*, how those young people who are not in education and not in full-time work are most at risk. Later, he describes another way to use the concept of risk by using it to identify those young people who are more vulnerable than others in finding and sustaining stable employment. The at-risk group is defined as those young people who are not studying, but are in part-time work, or who are actively looking for work (the unemployed), or those not in work and not considered as actively seeking work (not in the labour force).

The literature appears to support three general meanings of at risk. There are those students who suffer personal, social and economic disadvantage, or as Withers and Russell (1998) suggest, where the young person is seen to be in danger of developing negative attitudes, behaviours, relationships and outcomes in most major contexts of his or her life and are thus likely to suffer negative life outcomes. Second, there are those students at “educational” risk, but are supported by their families and communities in other areas of their life, and those who are at risk in their future life prospects due to under- or unemployment and not being involved in full-time study. Batten and Russell (1995), McWhirter, McWhirter, McWhirter and McWhirter (1993), Mortimore and Mortimore (1999) and Withers and Russell (1998) link school failure with negative future life prospects by describing young at-risk people as those likely to fail to have the development that would provide a sound basis for a satisfying and fulfilling adult life. The literature supports the notion that it is likely that a young person who falls into the first category, that is, one who suffers economic disadvantage, is likely to be both educationally, and in terms of future destination, at risk. A third group may well be emerging, but is not yet well identified in the literature and that is the Gaines et al. (1996) prediction of “technologically at risk”.

## Why Do Students Leave School Early?

There are many reasons why students leave school early and become non-completers, as suggested by the title of the SSABSA 1999 Research Report: No. 1 *Leaving School Without Credentials: As Many Reasons As Students* (SSABSA, 1999). Recent research into early school leaving suggests a range of reasons for “opting out”. Most of these reasons centre on family issues including homelessness, conflict in teacher/student relationships, irrelevance of curriculum leading to boredom and alienation in large institutions. Australian researchers have identified high-risk groups whose characteristics are supported by research undertaken in the UK and the US. Dwyer (1996) and SSABSA (1999) list children from low-income families (as defined by School Card status), aboriginal students, regional country students, truants and homeless youth as those children most at risk of leaving school early. Education Victoria (1998) has a detailed and lengthy list of risk factors compiled to assist schools in identifying the students likely to be prevented from completing their schooling. These include:

- (a) Family or relationship problems including physical and sexual abuse
- (b) Negative family attitudes towards education
- (c) Poor literacy and numeracy skills
- (d) Poor organisational skills
- (e) Low self-esteem
- (f) Homelessness
- (g) Lack of accommodation or financial support
- (h) Substance use or abuse (self or other family members)
- (i) Difficulty with handling emotions
- (j) Gender, sexuality and racial issues
- (k) Teenage pregnancy and motherhood/fatherhood
- (l) Broken schooling through illness or injury
- (m) Mental illness
- (n) Medication for ongoing mental or physical illness
- (o) War, trauma and lack of formal education

Murden College was part of the *Student at Risk project* conducted in 1995/96 funded by the Commonwealth Government through the *National Equity Programs in Schools* (NEPS). One of the objectives of the project was to identify the students

most likely to encounter difficulties in their senior years and provide appropriate support to enable them to access and participate in the curriculum. Categories of “students at risk” identified in the student cohort attending the College at that time were:

- (a) Mental illness, that is, students who were suffering and diagnosed with a condition affecting inter-personal relationships and school attendance. These conditions included schizophrenia, depression, obsessive-compulsive disorder, and agoraphobia.
- (b) Living away from home, including homeless students who had left the family home due to domestic violence or extenuating circumstances and were receiving Independent Youth Allowance, students from rural or isolated communities who may have been living with a relative or in a boarding facility in the city, and those older students who were living independently.
- (c) Sexual preference issues affecting students who had recently “come out” or who were questioning their sexuality. This group also includes students living in families with same-sex parents.
- (d) Non-English Speaking Background Students (NESB), students for whom English is not their first language.
- (e) Learning disability/difficulty, including students who have had a psychologist/psychiatrist diagnose a disability or difficulty, or those students who exhibited features that prevent functioning in the normal classroom setting.
- (f) Poor academic achievement, including students who had developed “learned failure” due to repeated perceived or real failure.
- (g) Victims of domestic violence where a series of violent incidents including physical abuse in the family home had been reported to the authorities.
- (h) Poor attendance including students who had irregular attendance
- (i) Exclusion from the student’s previous school, including students who had been excluded for non-compliance with their previous school’s regulations.
- (j) Criminal involvement, including those students who either had been a victim of organised crime, street violence or were the young offender.
- (k) Medical history, including students who were suffering from a medical condition that required specialised equipment and hospitalisation. e.g., severe mental illness, diabetes, severe asthma.

This detailed list can be seen to have many similarities with the Education Victoria (1998) list and with other research, such as the *Doing It Well* report (DETYA, 2001b), where they use the Catalano, Hawkins, and Arthur (1997) categorization of risk factors that underpin the development of problematic adolescent behaviour and often lead to under-achievement, failure and dropping out. Catalano et al. (1997) synthesised common risk factors identified by many researchers, placing them into the following risk groups:

- (a) Community risk factors: The availability and ease of access to drugs and firearms, the laws and policies in relation to drugs, offending and violence, media portrayal of violence, low neighbourhood attachment, community disorganisation, and extreme economic deprivation.
- (b) Family risk factors: Family history of the problem behaviour, family management problems, family conflict, unfavourable parental attitudes and involvement in the behaviour.
- (c) School risk factors: Early persistent anti-social behaviour, academic failure in elementary school, lack of commitment to school.
- (d) Individual/peer risk factors: Alienation, rebelliousness, lack of bonding to society, friends who engage in the problem behaviour, favourable attitudes towards the problem behaviour, early initiation of the problem behaviour, constitutional factors such as lack of impulse control, and sensation-seeking.

The complexity of the factors affecting a young person's life means that to try to identify a factor or factors that may put them at risk is extremely difficult. Batten and Russell (1995) conclude that "one thing is clear, however: the concept of single cause-effect relationships in this area is a nonsense ... relationships need to be viewed as forming a dense and complex web of interrelated, interacting, multi-directional forces" (p. 50).

In 1995, Webber and Hayduk conducted a research study in the Australian Capital Territory (ACT) on behalf of the ACT government to examine, among other things, why students leave school early (prior to completion of Year 10) and current school and community programs that have been successful in keeping students who may be at risk of leaving school early. Teachers, other people who work with young people and the students themselves provided data for the research. When the researchers were collecting anecdotal evidence as to why students leave school early, a youth worker commented in an interview that "some students attending [school] are



‘unavailable for learning’’. There are too many other issues in their lives, which are occupying mental, emotional and psychological space. There is no space left for learning’ (Webber & Hayduk, p. 79).

Policy makers, according to Dwyer (1996), have a problem in the way they view early school leaving because they believe that by simply increasing retention rates through policy changes such as raising the school leaving age and tightening of obligations for those receiving Youth Allowance, that there will be an increase in participation of all students. If retention is taken to mean that a student who began Year 8 is still in school 5 years later at the beginning of Year 12, it does not take into consideration whether they completed Year 12 successfully. From 1992 to 2002, there has been a percentage drop in Year 12 enrolments from the February census to the August census in DETE schools of between 13.25% to 17.33% (B. Gill, DETE, personal communication, November 28, 2002). In other words, an average of 15% of Year 12 students are leaving school each year without completing the year, and thus, the SACE. Curtain (2002) states that the Finn targets established a decade ago for post-compulsory education and training have not been achieved, indicating that policies enacted to improve retention so that 95% of 19-year-olds had completed Year 12, or be undertaking Year 12 or equivalent study, have not succeeded. The statistical evidence presented by DETE and the problem Dwyer suggests policy makers have, are supported by observations I have made and the discussions I have participated in during the SSABSA STAR 1 and 2 projects. A group of at-risk students will always be present in the school population and will possess at least one of the characteristics included in the discussion above. Increasing the numbers of students staying at school does not necessarily mean that there will be an increased completion rate. Findings of other research conducted by Teese, Polesel and McLean (1993) emphasise that while divisions between students are now fewer, they are sharper, with young people living in upper status areas of the city having a secure expectation of educational success. Poverty, as measured by social economic status, remains one of the key indicators of non-completion as supported by Curtain (2001, 2002), Dwyer (1996), Lamb et al. (2000), Lamb and McKenzie (2001), Parker (1995) and Webber and Hayduk (1995).

## Types of Early School Leavers

Many authors have described the personal characteristics students at risk exhibit, defining these after the student has begun to encounter difficulties. There are personal biographies that are more likely to place a student at risk of school completion, but as Pulson (1993) and Wyn and Holden (1994) warn, caution needs to be taken in that a student who possesses of a set of characteristics deemed to be negative in terms of school outcome is not pre-labelled as being outside the acceptable norm. "Riskness", according to McWhirter et al. (1993) and Withers and Russell (1998), can be viewed as a continuum of particular personal circumstances that are likely to place a student at risk of non-completion and a range of complex factors surrounding these, so that categorising of a student who may be at risk of not completing post-compulsory schooling is not a single-issue identification process. In 1990, the Youth Research Centre (Dwyer, 1996) devised a typology of six groups of early school leavers, with each group calling for different levels of response from schools. This represented an attempt by an Australian Government agency to assist schools in managing the different kinds of students that can present as possible early school leavers. It was argued that schools can be influential in preventing early leaving if the early warning signs are acknowledged. The types listed below are based on the descriptions of Dwyer and have been adapted by many authors to describe the characteristics students may exhibit in the school environment and suggest ways schools' counselling processes may assist students in the transition from school to work.

**Positive leavers:** There is a significant group of students who leave early because of a positive choice to take up a job position, an apprenticeship or some alternative career-path. Those in this group may need some referral assistance or advice about training schemes, but they are less likely to be at risk (of unemployment) than other early leavers.

**Opportune leavers:** This group would include those who have not decided on an alternative career-path but who take the opportunity to leave school on finding a job for themselves or establishing a personal relationship that they saw as preferable to continuing at school. In the short-term, members of this group may not be particularly interested in referral assistance or training schemes, but in the medium to

long term, some of them may need, and respond favourably to, a “second chance” or re-entry program.

**Would-be leavers:** The shelter effect of forced retention points to a group of “reluctant stayers”. They might prefer to leave but lack opportunities beyond school. The evidence on curriculum innovation suggests that in these cases forced retention can be converted into willing participation if there is opportunity for better teacher/student relationships, and student participation and negotiation over curriculum offerings.

**Circumstantial leavers:** A significant number of early school leavers are virtually forced out of school for non-educational reasons. Children from low-income families are particularly vulnerable in this respect. While curriculum innovation may help these students’ level of satisfaction with school, it may not improve their retention. Changes to family income support provisions could be a crucial factor in this regard. Schools should also consider a more flexible policy in attendance, allowing for those who either need the income from a part-time day job or whose level of interest would benefit from greater flexibility.

**Discouraged leavers:** There will continue to be a significant number of students who have not had success in their schooling and whose level of performance and interest in education is low. More flexible school policies and curriculum choices may help to reduce the numbers of these leavers whose experience of education has been a discouraging one. Special programs need to be devised which cater for a diversity of learning styles and pastoral support mechanisms may also be important for this group.

**Alienated leavers:** The needs of this group are similar to those of the discouraged but are likely to be more difficult to meet. There is some hope that more flexible school policies with regard to curriculum organisation and attendance requirements could reduce the level and extent of alienation, but the post-school experiences of this group are likely to be far more crucial. This raises issues about alternative programs and services provided at a local or community level to re-engage these leavers within a non-school context.

This typology, DETYA (2001a) claim, highlights the role schools can play in changing the risk factors of some young people. Homelessness, a common cause of early school leaving, is used as an example to illustrate this point, “students who become homeless may ‘drift’ out of schools [being] uncommitted to meeting their

special support needs or they may be ‘driven out’ of schools following poor attendance and performance resulting from their homelessness” (p. 20). The problems that students at risk of early school leaving face are so varied and complex that to try to solve each case is an impossible task. Dwyer (1996) suggests that schools should aim to have students who appear likely to be early leavers heading for the first category he defined, that is being a positive leaver, because this has the best chance of positive career outcomes.

### Factors That Increase At-Risk Students’ Involvement and Achievement in the School Curriculum

Considerable evidence (eg., DETYA, 2001a; Dwyer, 1996; Education Victoria, 1998; Smyth, Hattam & Lawson, 1998; Webber & Hayduk, 1995) points to a range of factors that schools can use to guide them when planning and implementing teaching programs and curriculum to assist students at risk to improve both participation in and completion of school. Batten and Russell (1995) offer a cautionary note when examining practices deemed to be successful in improving student access to the curriculum.

It should not be inferred that all the strategies are essential for inclusion in a program, or that the more strategies included, the better the program. As the literature indicates, there is no such thing as the “typical” student at risk, and therefore there can be no “typical” program or program components. (p. 90)

There has been increased recognition in recent years that programs offered in schools need to be more relevant and inclusive for all young people, not just for those going on to university. The expansion in vocational, work-based and industry-related programs and the recognition of this learning within high school certificates point to the changes schools and schooling are undergoing and the main-streaming of a wide range of practices previously reserved for students who were likely to leave early. The key factors agreed by authors such as Dwyer (1996), Mapstone (1999), Webber and Hayduk (1995) for improving student outcomes are: small class and/or school size, flexible approaches to timetabling and to learning needs, alternative programs that improve access and choice in the curriculum, individualised programs, recognition of the learner by allowing self-direction and ownership of the learning,

application of adult learning principles, promotion of positive student/teacher relationships, and accessible re-entry for students who wish to return to school.

### *School and Class Size*

Many authors, including DETYA (2001a), Dwyer (1996), Symons and Smith (1995) and Webber and Hayduk (1995), have made comment that the current education system is not accommodating the learning needs of all students. Webber and Hayduk (1995) describe the education system as “being seen as both large and disempowering! Small schools are good” (p. 90), they conclude. Their research found that different people involved in the support of students, including teachers and youth workers, all commented on the importance of low student/teacher ratios for at-risk students. One youth worker commented that small groups in smaller settings are a way to improve students’ learning, with others commenting on the reduced pressure students feel when working in small groups.

Dwyer (1996) states that smaller school structures, which humanise the more impersonal and institutional demands of schools as larger-scale organisations, would be an effective school practice. Tally (1999) argues that the “smaller is better” concept applies to both the classroom and the school itself. Smaller schools, or the division of larger schools into schools within a school, encourage the caring relationships between students and school staff that can help students improve learning outcomes and make successful transitions into further study or employment.

### *Flexible Approaches to Learning*

There is a need for flexible learning to improve student participation in school, as discussed by Hixson and Tinzmann (1990) in the US, and Dwyer (1996), Education Victoria (1998), Lamb et al. (2000) and Mapstone (1999) in Australia. They agree that flexible learning options must be incorporated into schools if at-risk students’ needs are to be met. Webber and Hayduk (1995), in their *Leaving School Early* research, suggest that alternative programs can be successful if they are flexible, work at students’ strengths, give students the option to leave a stressful situation and apply different learning methods for different learners. “Teaching methods should acknowledge that different people learn in different ways. Generally, the education system adopts a one-size-fits-all approach. Students are alienated if they don’t fit” (p. 90).

Hixson and Tinzmann (1990) describe structural and programmatic barriers that exist in schools in the US that prevent full participation by all students in everything that the school has to offer. These include “inflexible school structures and schedules based more on history and inertia than student or family needs” (p. 6). This group of schooling structures generally refers to timetabling of subjects, subject offerings and required attendance times at school.

Education Victoria (1998) suggests that providing at-risk students with greater flexibility in schooling options can help to improve their attitude to education and their involvement in it. Coupled with this, Education Victoria also suggest that consideration of the range of students’ strengths and preferred learning styles may provide the choice and flexibility in learning programs needed to engage at-risk students. These considerations would allow learning programs and assessment procedures to provide the flexibility required to cater for the individual needs of the students at risk. Dwyer (1996) comments particularly on timetabling and subject choice as issues to be addressed by schools. Mapstone (1999) describes the inclusion of “alternative” days in the weekly timetable to enable students to engage in non-academic activities. Webber and Hayduk (1995) support this view by describing the need for flexibility within the school, such as by providing alternative timetables, structure and non-academic curriculum that focus on personal development skills, incentive schemes, work experience, and vocational study.

Part-time study is another option put forward by many authors, including Webber and Hayduk (1995), as a method of assisting students to manage their changing lives. Part-time attendance would provide students who struggle with attending school regularly an opportunity to remain at school to the degree they are able. Creating these options, Webber and Hayduk warn, requires flexibility on the school’s behalf, but may enable some students to remain connected with school. They go on to suggest that schools develop structured exit and re-entry points with part-time options.

#### *Alternative Programs*

Many of the programs described by DETYA (2001a, 2001b), Dwyer (1996), Mapstone (1999), Talley (1999), Volpe and Tilleczeck (1999) and Webber and Hayduk. (1995), are outreach or off-campus programs, where students who are identified as being at-risk are targeted by schools or other community-based agencies and invited to participate in the program. Mapstone (1999) presents the “Youth

Program” as an example of one of these strategies being implemented in the Swan River district of Western Australia, with part of the program being committed to improve students’ basic skills. These are termed “Individual Education Programs” and are tailored to suit each student on the basis of their specific academic level and interests. They provide learning packages that are negotiated with the student and teacher, with progress through each package being self-paced. Another important feature of these types of programs is their portability, because the program is self-contained thus not requiring specific teacher instruction, enabling the student to continue with their program without disruption even if they move, are in detention, or want to work from home.

Other examples include “The Grind” described by DETYA (2001b) as one of ten programs offered to students at risk of not completing school in the southern area of Adelaide. Christies Beach High School provides the regional cluster coordination for the ten programs and data management for the SACE. The staff at the Reynella East Enterprise and Youth Centre developed the program in 1997, and with funding from Mission Australia, the City of Onkaparinga and Commonwealth Government grants, have delivered the program on their site, rather than on the Christies Beach high school campus. The program uses community-based methodology and comprises 8 weeks of attendance, including a 6-week job ready and personal development program, followed by 1 week of job placement, with the final week spent with reflection and feedback tasks. In 2000, the program involved 19 students from local high schools who had either recently left school or who were in the process of leaving. The participants were mainly enrolled in Year 11 or 12, and were male, active, demonstrated poor literacy and numeracy skills and preferred activity-based learning. The program allows the requirements of a small number of Stage One SACE units to be met, but the main aim of the program has been to facilitate effective transition into the workforce. Two of the other programs in the same cluster are the Flexible Accredited Mobile Education (FAME) that operates from Cardijn College and is supported by the Christian Brothers (P. Cronin, Christian Brothers’ College, personal communication, November 28, 2002), and WAVE, operating from Wirreanda High School with support from Mission Australia and the City of Onkaparinga (V. Corfield, Mission Australian, personal communication, July 25, 2002).

### *Individualised programs*

Withers and Russell (1998) list individualisation as one of the principles that should underlie successful prevention and intervention programs by stating that “each young person, having a unique set of needs and capacities, and being exposed to a unique combination of risk factors, requires individualised instruction and, if at risk, individualised pathway planning” (p. 27).

The concept of individualised programs may be that of a negotiated curriculum plan, traditionally used in the government schooling sector to assist students with special learning needs, or it may be the type of support offered by schools to a student when it becomes apparent the student’s needs are best met with one-on-one tuition for a part of their learning. These types of interventions would be particularly applicable where the student has experienced disrupted learning and is unable to keep up in the mainstream classes. Symons and Smith (1995), Tasker (1995) and Webber and Hayduk (1995) support these strategies and describe that students at risk may require one-to-one attention, and more support than mainstream students. A positive result from individualised instruction is that students’ participation is increased and students are encouraged to take responsibility for their own learning.

A common concern among participant teachers that emerged during discussions in the SSABSA STAR 1 project was that removing students deemed to be at risk from the mainstream classes makes them “visible”, that is, appearing to be singled out for attention. A feature of students at risk that was discussed during numerous STAR 1 meetings was their relative invisibility in the school (STAR 1 Project minutes, 23<sup>rd</sup> June 1998). The students may have their deficits emphasised within the school culture, and thus be possibly placed at higher risk of school leaving. Hixson and Tinzmann (1990) warn that differential treatment of students on the basis of socioeconomic class, race, culture, and sex may place the students removed for special programs at greater risk. They suggest “reducing the risk of educational failure for all students requires that educators at all levels must become pro-active in rooting out subtle forms of differential treatment” (p. 6). This opinion is derived from investigations they have conducted in the US of new models of schooling which are aimed to prepare schools and students for the 21<sup>st</sup> century.

As early as 1989, during the writing of the Burdekin report on Youth Homelessness (Dwyer, 1996), schools were criticised for their tendency to write off



students who did not conform to mainstream preconceptions. Comments collected from two participants interviewed during the course of the research summarise the attitude of schools to at-risk students as “the schools are largely catering for the middle bunch, the so-called normal kids. We do not cater very well for the kids that do not fall into that middle bunch” (Burdekin, 1989, p. 272), and “the education system isolates young people who do not achieve and then it prevents access when they are deemed to be difficult. Once they are out it is very difficult to get back in” (p. 272).

The decision of whether to remove students from mainstream classes and place them in special programs ultimately rests with the school’s administration and the behaviour management plan of each school.

#### *Self direction and ownership*

Another key point from Webber and Hayduk’s (1995) research is that of self-direction and ownership. If students are encouraged to organise their own programs, activities and learning goals, they increase ownership of their learning and their self-esteem. The students’ view of their educational needs may be quite different to the school’s. A youth worker, interviewed during this research, commented that “the power imbalance between teachers and students should be changed to a more equal arrangement. Students should have learning contracts and make their own decisions on curriculum, planning and their program, etc” (p. 91).

Education Victoria (1998) suggest that allowing at-risk students the ability to negotiate aspects of their learning can increase their sense of ownership in the education process. While the most disruptive behaviour found in schools is often found among students of greatest educational risk, it is these students who also feel they have the least power and control over their lives. Giving them responsibility for their learning by allowing them to choose topics they find most meaningful and relevant to their lives should improve learning outcomes.

#### *Adult learning principles*

Differences may be observed between the way in which teachers of children operate, and the methods that teachers of adult students employ. The assumptions made by teachers who specialise in delivering instruction to adult learners are outlined by Cantor (1992) and Cranton (1992), and include that adults are autonomous and self-

directed in their learning, that they are goal-oriented and need to know that they are learning something worthwhile, that they are practical problem-solvers and have accumulated life experiences. Kearsley (1996) summarises what this means for teachers and the way they teach by stating that “instruction for adults needs to focus more on the process and less on the content being taught. Strategies such as case studies, role playing, simulations and self-evaluations are most useful” (p. 1).

A model for adult learning is described by Knowles (1990) as an “andragogical model” where adults need to know why they need to learn something before they learn it, and the worth of the learning needs to be more than just because “it counts”. Adults, Knowles continues to argue, need to be told how their lives will benefit from engaging in learning a particular body of knowledge. An important distinction between the adult learner and a younger school student is that the adult learner is more likely to have a self-concept that they are responsible for their own decisions and for their own lives. Once they have arrived at this self-concept, Knowles states,

They develop a deep psychological need to be seen by others and treated by others as capable of self-direction. They resent and resist situations where they feel others are imposing their wills on them. They hark back to their conditioning in their previous school experiences, put on their dunce hats of dependency, fold their arms, sit back, and say ‘teach me’ (p. 59).

The role of educators is to help the adult learner to make the transition from a dependent to a self-directed learner.

Students’ life experiences will affect the way they respond to learning. Knowles (1990) suggests that a group of adult learners will be more heterogeneous than a group of young students and because educators working with adults acknowledge this feature, there is greater emphasis in adult education on individualisation of teaching and learning strategies.

It can be argued that these suggestions made for adult learning by Kearsley (1996) and Knowles (1990) should be applied in the school environment, particularly for students at risk, because focusing on the process of learning rather than content provides students with transferable skills that may be applied to situations that the student chooses, rather than the teacher. Adult learning principles also encompass features of teaching and learning styles that are known to be useful for students at

risk. These include flexible learning, self-direction and ownership of the educational program, and shared responsibility for learning, with the teacher adopting the role of facilitator, rather than lecturer. While only a few authors explicitly state that adult learning principles should be applied to students at risk (Webber & Hayduk, 1995), some authors, including Cumming and Owen (2001), Dwyer (1996), and Education Victoria (1998) discuss the advantages of using strategies that can be found in the literature associated with adult learning, such as encouraging self-direction, providing self-paced modules and providing instruction that accommodates a range of learning styles.

Knowles (1990) summarised how we need to think of learning for adults. He suggested viewing education in a different way, learning from everything we do; exploiting every experience as a “learning experience”, making every institution and every person we have access to in our community a resource for learning including parents, children, and doctors. Learning, he continues, makes use of every resource, in or out of educational institutions for personal growth and development. In short, “We need to look at lifelong learning” (p. 15). It is interesting to note that the ideas expressed by Knowles of lifelong learning, community-based learning and individualised learning are similar to suggestions for remodelling education made by the Prime Minister’s Youth Pathways Action Plan Taskforce (2001) in *Footprints to the Future*. The Taskforce state that one of the changes schools will need to make in order to meet their proposed goals outlined in the charter *A National Commitment to all Young People*, is to recognise that schools are not the only places where young people learn, but that learning takes place at home, in employment, in sport, through life experiences and in the wider community (p .9).

#### *Student-teacher relationships*

It would appear from Holden and Dwyer’s (1992) research that the factor that most influences young people to leave school early, is the unsatisfactory nature of the school culture. Holden and Dwyer describe the negative teacher-student relationships that are propped up by rules and regulations that disallow young people from expressing themselves as adults and responsible members of the school community, a point which has been consistently restated in the subsequent literature (DETYA, 2001a; Dwyer, 1996; SSABSA, 1999). Senior secondary colleges may allow this self-responsibility development to occur, but students will only reach this level of

schooling if they are sufficiently motivated and prepared in the “middle years”. Dwyer (1996) describes how the middle years must now serve as an effective bridge enabling students to move from their early foundations of learning and carry on towards the successful completion of their Year 12 certificate.

In the early 1970’s, Nash identified six bipolar constructs to describe the characteristics that, in the students’ view, indicate appropriate teacher behaviour towards the student and these can be used for an overall judgement of whether a student gets along or doesn’t get along with a teacher. He referred to the teachers’ ability to keep order, explain work, be interesting, fair and friendly. SSABSA’s (1999) research into why students leave school early quote comments from students who dropped out of the SACE, complaining that they were “treated as a kid, not an adult”, and “teachers didn’t treat students fairly” (p. 20). Such comments support Nash’s constructs, particularly that of fairness and the notion of poor student-teacher relationships as being a major factor in non-completion, even when students reach their senior years of schooling. For many at-risk students, their self-concept and sense of confidence derive largely from their relationships with others. Teachers and other school staff, therefore, are primary sources through which students make judgements about themselves as learners and about their potential to be successful in educational environments. McIntyre, Freeland, Melville and Schwenke (1999), with reference to Dwyer’s (1996), types of school leavers, discuss that “discouraged and alienated” leavers are discouraged learners who are likely to have been singled out by their school on the basis of their anti-social behaviour. They may feel that particular teachers have victimised them. Abdal-Haqq (1993), Dunkenfield (2000), Hixson (1993), Hixson and Tinzmann (1990), and Mortimore and Mortimore (1999) indicate that negative teacher-student relationships have also been identified as contributing risk factors in research in the US.

The rules and regulations imposed by an education authority on teachers, which then, in turn, teachers are required to impose on students, may promote conflict between students and teachers. To reduce the tensions between teaching and the increasing counselling role, Full Service Schools (FSS) projects, designed to provide extra assistance to students at risk, have been developed in Australia and are also discussed in the Canadian literature. The term “full service” refers to a range of extra counselling and educational programs these schools can offer their students, or, as DETYA (2001a) describe, “developing collaborative links between education,

community and health services” (p. 12). DETYA state “the aim of the FSS project was to encourage young people under 18 years to return to or remain in school until the end of Year 12 and to allow them to achieve quality learning outcomes and work-related skills” (p. 2). The 65 clusters of schools involved in the FSS project in 1999 and 2000 received increased Commonwealth government funds, thus a full service of career and personal counselling and transition and alternative education programs could be offered to the students in those schools. Schools were identified by education authorities as being eligible for extra funding if they had a large number of students at risk of early school leaving. The main criteria used by authorities to select schools for extra funding was that a large percentage of their student population was living in poverty, as defined by parental income.

Similar guidelines were used and support structures established in the Canadian FSS. Volpe and Tilleczek (1999) report that successful FSS programs in Canada involved changes to role and authority relations and this facilitated shared decision making in implementing, monitoring and modifying policies and practices. They also comment on the students’ and teachers’ relationships being “configured in novel ways” (p. 2), referring to the changed role of the student and teacher in shared learning environments, where the teacher is no longer a figure of authority, but rather a facilitator of learning.

Schooling authorities in the US have developed a similar approach to assisting schools with large numbers of students at-risk and refer to their programs as “School-linked integrated services”. These schools are described by Abdal-Haqq (1993) as a hub for the delivery of services that complement and support education. Collaborative partnerships are established connecting schools, service agencies, families and the community.

A similarity between the more successful programs for at-risk students in the US, Canada and Australia appears to be that teachers in the programs had a positive attitude towards their students, expecting that they would succeed by providing achievable, but challenging work. In Canada, “teachers in these programs held high expectations for all their students and offered challenging and interesting courses, and developed integrated curriculum” (Volpe & Tilleczek, 1999, p. 2). In Australia, the Cyril Jackson Senior Campus’ successful Youth Program, features “high expectations of students: challenging programs and activities” (Mapstone, 1999, p. 47).

### *Accessible re-entry to school*

For re-entry to become an effective option, Lamb et al. (2000) suggest that greater attention needs to be paid to ways of improving non-completer access to and guidance through programs designed to meet their needs. The school, through its structural organisation and the programs it offers, will need to take into consideration the activities students have been engaged in while out of school, and the fact that their schooling has been interrupted. Many authors, such as Dwyer (1996), Lamb et al. (2000) and Webber and Hayduk (1995), suggest that the sort of education offered to non-completers returning to school should be flexible, relevant and rewarding. There is a need to ensure that the young people returning to school are not just participating in education to meet welfare payment requirements or to occupy their time, but are engaged in programs which promote the acquisition of skills that will help lead to entry into further training, secure jobs and a better future.

### Addressing Alienation by Making a Supportive School Environment

The lives and priorities of young people are changing and some students are unable or unwilling to commit to full time schooling and can become alienated from the schooling process. Fensham, Power, Tripp and Kemmis (1986) describe the alienation process as involving teachers and students, rather than being a static phenomenon. For many students, school consists of spending the day undertaking activities that have little meaning to them. Symptoms of alienation described by teachers in Fensham's research were thought to be absence, rudeness, general disruption, low achievement and passive non-cooperation. Alienation was attributed to negative teacher-student relations and the nature of the curriculum. The traditional academic curriculum was characterised by having "a record of failure to meet the educational needs of most of the new sorts of students (for example, those who would have been early school leavers but now stay on due to the economic climate) and [a] set of irrelevant hurdles for so many aspects of life beyond school" (p. 272). There are many reasons why some young people exhibit the symptoms listed above, with most of these problems arising from poor interpersonal relationships within their family structure and conflict with people in authority. Their feelings of frustration and anger are often outwardly expressed to other students in their class and towards teachers. These alienated students, like the other at-risk groups, are excluding

themselves from school by not accepting and conforming with basic behaviour codes and practices enforced by schools. These codes are in order to protect the learning rights of all participants in the learning process, and to ensure the safety of all within the institution.

A supportive school structure (Dwyer, 1996), further clarified by Batten and Russell (1995), is where teachers give academic and personal support to students so they do not feel overwhelmed by their studies. One factor in determining an alienating school culture, as described by Dwyer, Stokes, Tyler and Holdsworth (cited in DETYA, 2001c), was the lack of support and referral to appropriate agencies for young people who are experiencing problems in their personal or academic lives. Education Victoria (1998) refer to whole school welfare strategies where there is collaboration between schools and local service providers to provide both crisis support and early intervention to support at-risk students. Withers and Russell (1998) describe the need for a positive, supportive, responsive school culture in which the young person can feel safe, accepted and valued. Volpe and Tilleczek (1999) describe an effective school as one that, in addition to having high expectations and standards, is a warm and caring place.

There has been much interest shown by governments in many countries in recent years concerning the problems of under- and unemployment suffered by early school leavers and the economic and social burden this can place on communities. The results of numerous research projects funded by State and Commonwealth Governments, including *How Young People are Faring* (Curtain, 1999, 2000, 2001, 2002) and Lamb and McKenzie (2001), have shown a strong relationship between school completion, and future destinations of young people. Government reactions to these research findings tend to be the direction of extra funding into projects aimed to increase the numbers of students who complete school. For example, the NEPS which operated in the mid-90s and more recently the FSS project which operated in 1999 and 2000, are initiatives where extra assistance to schools with students at risk has been provided. These approaches are intended to achieve two outcomes, the first to encourage young people who may have left school early to return to “adult re-entry schools” that operate differently to traditional secondary schools by providing a more suitable environment for adult students. Another option is to keep students from leaving school before the end of Year 12 by offering support to individual students through alternative programs.

In summary, the literature describing students at risk yields an array of reasons as to why students leave school early and provides descriptions of some successful strategies which schools have implemented to keep students engaged in learning and thus remain in school. By analysing the features of successful programs, a range of factors concerning the school environment and teacher approaches can be identified as contributing to student retention in schools. These include factors that are dictated by the administrators of individual schools, such as school and class size, the timetable and other programmed events, and whether there is provision for alternative and individual programs. Another set of factors concerns the student-teacher relationships and classroom interactions, such as the level of self-direction and ownership that the teacher allows the student to have, the position the teacher holds, that is one of authority or that of facilitator, and the extent to which the teacher can accommodate individual learning styles.

Although individualised instruction, alternative programs and self-directed learning are described by authors as being desirable strategies to be used with at-risk students, thus far there is little to find in the literature, both in Australia and overseas, to suggest that online learning could be used for these high school students. The next chapter describes the characteristics of online learning and the potential advantages of online curriculum delivery, summarising at the end of the chapter how online curriculum delivery may be a useful strategy for students at risk of not completing Year 12.



## CHAPTER 3

### LITERATURE REVIEW PART 2: THE POTENTIAL OF ONLINE LEARNING

Most of the literature reporting research findings into the effectiveness of online curriculum delivery describes post-secondary school options, such as Technical and Further Education (TAFE) and university applications. The reason for this is that online learning has only been available as a study mode since the 1980's, when researchers in tertiary institutions began experimenting with the use of computer conferencing for undergraduate course delivery. Online learning has not been widely used by secondary schools, other than by each State's distance education provider, due to State government regulations concerning students' attendance. There has been an increase in the evaluation of learning programs that use multi-media applications for parts of learning programs in the school setting over recent years, but little published research discussing the effectiveness of whole curriculum delivery using Information Communication Technology (ICT). There is even less published research into the use of online courses as a method to improve access to the school curriculum for students at risk of not completing school.

The discussion that follows presents a summary of the modes of curriculum delivery in place for secondary students to receive instruction both in Australia and overseas, and then explores the potential advantages of online curriculum delivery. The changed role of the teacher in an online learning environment is then explored and the implications for teacher training discussed. Finally, the characteristics of a successful online learner, which have been identified by research primarily in the tertiary education field, are presented.

#### Modes of Curriculum Delivery

Conventional education, as defined by Keegan (1986), is the term applied to formal, classroom-based instruction in a school, college or university setting, where the teacher and students are physically present at the same time, in the same place. This method of delivery, "face-to-face", has existed for over 2,500 years and, as Keegan suggests, will probably be around for another 2,500 years. This is the method of curriculum delivery used in the majority of classrooms around the world. The

traditional schooling structure and teaching methodologies employed by most teachers is dependent on the existence of face-to-face delivery. However, in circumstances where the students cannot attend school, government and other bodies responsible for the education of citizens have used other modes of curriculum delivery. For example, Mossenson (1972) indicates that education by correspondence was pioneered in the colony of Western Australia in the mid 1890's with the Education Department of Western Australia correspondence classes commencing in 1912. Distance education is described by Keegan (1986) as being:

the quasi permanent separation of teacher and learner throughout the length of the learning process; the influence of an educational organisation; the use of mechanical or electronic media; the provision of two way communication so that the student may benefit from or even initiate dialogue; and the quasi absence of a learning group throughout the length of the learning process. Interpersonal face-to-face communication is replaced by an apersonal, mechanical or electronic communication created by the technology of industrialisation (p. 230).

In different countries and States, local education legislation governing schooling, particularly policies concerning the compulsory years of school attendance, influence how a school can deliver curriculum, and maintain government funding and registration. In Australia, the Commonwealth and State governments are responsible for the provision of education to all students within the compulsory school attendance age range set by each State. The School of the Air covers the educational needs of students during the compulsory years of schooling in the remote regions of Australia, with each State having its own public education "distance" facility. These "schools" deliver the same curriculum that is available to students in the day schools, but use communication technology as a way to correspond directly with students, e.g., phone, tele-conferencing and more recently, Computer Mediated Communications (CMC). These institutions still rely in the main on mailing hard copies of curriculum materials and assessments to their students, with students mailing back their completed assignments. An example of one of these schools is the *Distance Education Centre of Victoria*. The school offers a number of subjects online and by traditional correspondence methods, but for students to enrol in the programs they must meet the eligibility requirement guidelines set by the Victorian State Government's Education

Department. These fall into the categories of distance, where the student lives more than 8 km from the nearest State Government school, medical reasons that prevent regular school attendance, students who are referred by their school and children of itinerant workers who are unable to attend a school regularly. *The Brisbane School of Distance Education* operates in Queensland under a similar set of guidelines to those in Victoria, as does the *Open Access College* in South Australia. These distance facilities in addition to students in remote areas may enrol students who are not able to attend school due to illness, or those attending day schools where the school does not offer a subject that the student wishes or needs to take, or where there is a timetable clash. Information from the Distance Education Centre, Victoria (2000), Brisbane School of Distance Education (2000), Queensland, Open Access College, South Australia (2000) web sites indicates that if a student enrolling in a subject is not living in an isolated area, a separate course fee applies which is in addition to their day school enrolment.

The use of electronic media as a way to deliver curriculum to school students involved in distance education facilities in South Australia has been increasing over the past few years, as indicated by personal observations of the Open Access web site from 1998 until 2002. In 1998, there were no senior secondary subjects offered online by Open Access, but in 2002, ten subjects were available using the online medium. Other CMC advances that have increased the availability of online curriculum include satellite links to remote areas, making it possible to send large amounts of information electronically, resulting in quicker delivery than traditional postal services. The use of CMC with applications such as video conferencing and e-mail, has made communication with children living in remote areas much more interactive, aiding the quick exchange of learning and assessment materials and the provision of teacher feedback.

Even with rapid advances in the quality and reliability of CMC, the situation remains that the student who is not in the classroom is remote from the teacher and the class and thus removed from the complex interpersonal interactions that occur in the classroom learning environment.

When a person wishes to engage in an educational program and cannot attend a campus, then other ways for people wanting to access the curriculum need to be explored. The tertiary system has been offering "open learning" for many years as a way to increase participation for people who wish to study but find it difficult to

attend a campus. The “anytime - anywhere” concept of delivery applies to open learning institutions where “attendance” may not be required in the traditional face-to-face sense. Open learning as defined by Foks (1987) “is an approach to education and training which combines traditional and non traditional strategies and resources as appropriate to the needs of individual and corporate clients” (p. 139). Lewis and Spencer (1986) broadly define open learning as “a term used to describe courses flexibly designed to meet individual requirements” (p. 9). Foks (1987) uses the example of Deakin University that offers three delivery modes; on campus, open campus and off campus, “on” being synonymous with conventional education and “off” with distance education. Open campus, however, comprises a mix of both on and off campus options. Maxwell (1995) defines open learning as “a student-centred approach to education that removes all barriers to access while providing a high degree of learner autonomy” (p. 43). Online learning can then be seen to be a combination of both distance education and open learning philosophy when it is applied to the off campus setting.

Online learning tends to be associated with distance education in the tertiary education sector. In the secondary school setting, most references in the literature to online learning refer to either distance learning where there may be components of units or whole units available online, or to learning on a school’s “Intranet”, which is part of the network of computers within a school, that may or may not be connected to the Internet. It is a term also used in discussions of open learning because CMC removes traditional barriers to attendance. Inglis, Ling and Joosten (1999) use the term “digital courseware” to mean “tuition materials developed for delivery by digital media, such as CD ROM or the Internet, in conjunction with digital communication media such as e-mail, chat facilities and computer conferencing” (p. 38). Unlike traditional distance education classes, online learning does not rely on a weekly phone call or video-conference where larger groups of students are involved. Online access removes the need for the student to be present and available for learning at a time dictated by the teacher.

In the US and Canada there are examples of online schools that operate as consortiums so they can meet State government registration and enrolment requirements. *CyberSchool International Consortium* is an example of such an organisation and operates by including schools from eight different States preparing and posting their courses on the *CyberSchool* web site. Their school motto is “Real

teachers, real students, no walls". *International High School (IHS)* also operates out of the US and is accredited by the US Accrediting Commission of the Distance Education and Training Council. IHS offers courses that comprise the International High School Certificate, not the local award, and thus students enrolled in day schools undertaking single units with IHS may not be able to include the units completed with the IHS towards the local school authority's completion certificate. Another difference between IHS and other online programs is that students receive live, one-to-one instruction over the Internet using videoconferencing technology. Instruction is individualised with assignments reflecting the learning style and personal needs of each student. *CyberHigh* is a Canadian virtual school operating in Alberta and is based on what Hathaway and Hathaway (1996) describe as a "successful pilot study" conducted in 1994-95. All work and communication occur via CMC with students being offered individualised and personalised instruction.

#### Potential Advantages of Online Curriculum Delivery

Online learning programs have a distinct set of characteristics that Hiltz (1994) divides into factors related to educational access and factors related to educational effectiveness. She derived these characteristics during her research project, the "Virtual Classroom Project" which began in 1985 and operated until 1999. Those advantages related to educational access including flexibility in relation to location and time of access to the curriculum; no travel, thus time saving; and less wasted "overhead", referring to expenses related to on-campus study, such as transport to and from an institution and meal costs, shared workspace and participation opportunity. In terms of educational effectiveness, she lists collaborative learning opportunities, more active learning, facilitation of self-pacing, availability of other computer resources and complete course notes as advantages of online learning.

#### *Flexibility*

Clark (2001), Hiltz (1994), Inglis et al. (1999), Koufman-Frederick, Lillie, Pattison-Gordon, Watt and Carter (1999) all state that an advantage of online courses is that they can be "attended" at any time, from anywhere describing the notion of "location" as being an advantage of online learning. The student has the flexibility to log on to the Internet or use floppy discs or CDs in libraries, in school computer

laboratories, in the workplace or in the home, thus anywhere the appropriate technology is available. This means that people can participate in courses who might normally not be able to, and participants have more time to reflect on what they are learning. Partee (1996) points out that one advantage of using e-mail communication between the teacher and learner is that not only can instructors choose to make themselves available to their students at any time, but they also have an electronic record of all such transactions. However, Inglis et al. comment that flexibility is limited by the desirability of synchronous communication, for example if a student wishes to communicate with a teacher or fellow student in real time, they must all be available at a given time, reducing the flexibility of the delivery model.

### *Self-Pacing*

Self-pacing is another advantage of online learning recognised by Inglis et al. (1999) and Jones, Kirkup and Kirkwood (1992). Jones et al. state that computers can reduce transactional distance in distance education by allowing the structure of teaching materials to be more flexible, thus allowing students to study at their own pace and also to a depth appropriate to their prior knowledge and understanding, and to achieve their desired learning outcomes. Added to the ability to self-pace though a learning program is the ability students have to enter and exit a course at times appropriate to them. Inglis et al. (1999) describe this advantage and add that prior learning can be accommodated and that students can pursue a topic to different depths or levels of proficiency, select alternative topics, paths or sequences and dip in and out of a learning program. Students studying online also have access to learning materials and assessment tasks throughout their involvement with the course. They have the freedom to check on past information and to look forward to new material when they wish.

### *Participation Opportunity and Active Learning*

When Hiltz (1994) uses the phrase “participation opportunity”, she is referring to how CMC allows all students an equal opportunity to ask questions and make comments, even if they have difficulty with putting their ideas into words quickly. They may take as long as they need to formulate their questions and contributions. Koufman-Frederick et al. (1999) recognise this benefit by stating that “often people who are reluctant to speak up in a face-to-face environment participate more actively

in an online environment” (p. 15). Harasim, Hiltz, Teles and Turoff (1995) support this view by quoting findings from research conducted by Harasim and Jung (1993) that “students become active participants; discussions become more detailed and deeper” (p.14). Students who are engaged in online learning cannot be passive observers if they wish to succeed. The computer, as Hiltz explains, forces responses and attention from the participants. In order for students to move through the materials and activities of the course, they must use the software programs recommended and regularly engage in communication with their teacher.

Kennedy (2000), in describing her findings from research into post-secondary students using online learning, states that students liked to use the e-mail to contact their teachers because they could share ideas and information with their teacher when they were working, regardless of the time or place, and receive feedback at a time when they were able to access it. Partee (1996) also found that the e-mail provides extended opportunities for personal counselling by the individual teacher. They both have a record of the progress the student is making which can be a powerful self-evaluation tool for the student during their course of study.

#### *Collaborative Learning Opportunities and Shared Workspace*

Collaborative learning refers to “any activity in which two or more people work together to create meaning and explore a topic or improve skills” (Harasim, et al. 1995, p. 30). Hiltz (1994) and Siska (1999) describe how the use of CMC can facilitate collaborative or group learning where students may work together asynchronously, because they do not need to be in the same place at the same time. Students may encounter study partners with whom they may not have worked in the face-to-face setting. By using ICT, it is easy to exchange information that may be difficult to share or disseminate in the classroom, such as the exchange of assessment materials between the teacher and a student or between other participating students, enabling draft work to be viewed by others, feedback given, and returned for completion, and sharing results from each others’ research.

#### *Availability of Other Computer Resources*

Jones et al. (1992) state that computers can make available resources that have not been specifically designed for educational use, e.g., databases that can be searched and accessed as the learner desires. This may include Internet sites or library

databases. Hiltz (1994) suggests that parts of expensive computer programs can be integrated into the learning resources so that students who may not normally have access to these can use them in their coursework.

### Changed Role of the Teacher in an Online Learning Environment

Online teaching and learning involves not only changes to the structure of educational institutions, but more importantly, changes to the role of the key participants in the learning process, the students and the teachers. Oliver (1999) describes conventional teaching as where the curriculum content is usually fixed and presented in linear and sequential ways. Typical activities involve learning tasks that are segmented and fragmented to make them achieved more easily. The teacher is viewed as the expert and learners act in passive modes working individually to complete set tasks. Learning theories have always suggested that what is needed is more active involvement of the learners in the learning process.

Teachers in the online learning environment become quite different in their teaching approach to their contemporaries in terms of their roles and responsibilities. The differences appear in how they interact with their learners and how they manage and implement their learning settings. Oliver (1999) describes the key differences seen in a successful teacher in online learning: “the teacher’s role becomes one of guide or coach, no longer the ‘sage on the stage’” (p. 4). There is only a minor place for lecturing or other forms of teacher-directedness in these settings with the most active person in the environment being the learner and the teacher taking a spectator role. Teachers also become more aware of their role as a learning designer, because they need to plan engaging learning activities. Carter (1998), Lee and Reigeluth (1994), McLellan (1996) and Passerini and Granger (2000) recognise that the Internet is a unique tool that allows a shift from an instructor-centered paradigm to a student-centred learning domain. The open navigation opportunities that the Internet provides increase the learner’s control of instructional experiences, because they can access a vast array of information, and communicate easily with people without having to be in the same room.

Oliver (1999) explains that curriculum developments have moved from descriptions of the content to be learned to where the outcomes of learning are made discrete. The learning activities designed by the teacher need to reflect how the



learning will be used in the future and this creates large differences in the ways teachers consider their subjects and their delivery methods. Oliver (1999) refers to how

The move to online [teaching] is coinciding with moves to more authentic learning settings. The online technologies encourage and support such strategies as problem-based learning, case-based learning and even work place learning. The concept of the classroom as a place of learning is expanded as the classroom loses its boundaries. (p. 3)

### Implications for Teacher Training

In 1999, the Commonwealth Department of Education and Youth Affairs (DETYA) conducted a national survey of teachers, with the findings published in *Teachers in Australian Schools: A Report from the 1999 National Survey* (DETYA, 2001d), that showed the average age of teachers in Australian schools to be increasing. In 1999, the average age for a teacher in an Australian school was 41.18 years, with 56.4% being older than 40 years and the largest proportion of teachers falling into the 41 - 50 year age bracket. Added to the ageing of the workforce is the time teachers have been involved in teaching at certain school levels, for example, in 1999, 37.5% of senior secondary staff had over 16 years teaching experience at that level, and 52.6% of junior secondary staff had over 11 years teaching experience. These statistics show that most secondary school teachers underwent their teacher training more than 10 years ago, and, according to the research of Meredyth, Russell, Blackwood, Thomas and Wise (1999), may not be skilled with the “technology tools” required to use computers and CMC in the classroom or develop new curriculum using these tools.

Harasim et al. (1995) discuss the skills that teachers should have to produce effective learning packages. Teachers, the authors say,

must be skilled in basic operations, such as: access and upload and download messages (in e-mails and other CMC); read, write, delete and forward conference and e-mail messages; organise items for easy retrieval, either using PC-files arranged by topic, or tools such as key words in the host system; navigate the Internet using some basic Internet tools (Netscape, Gopher). (p. 62)

If schools wish to increase the subject content available through an online learning mode, then the teacher must be able to use the tools involved with ICT, and also process the curriculum design methodology to produce effective learning packages.

There has been a move recently in most developed countries to set recommended standards for teachers in ICT skills so that they can integrate ICT into the existing curriculum and begin to develop new curriculum and ways of teaching. In 1999 the Australian Council for Computers in Education (ACCE) indicated that several sets of standards have been developed by the International Society for Technology in Education and the National Council for Accreditation of Teacher Education (NCATE) in the US, with the most significant of these being “Recommended Foundations In Technology for All Teachers and Standards for Basic Endorsement in Educational Computing and Technology Literacy” (ACCE, 1999). The NCATE recommends that teachers should be able to meet basic ICT competencies if they are to maintain their registration. The registration requirements for teachers in the US demand that they engage in continuous in-service activities, whereas in Australia this is not required. The ACCE has acknowledged the need to develop a set of competencies and has produced the Teacher Learning Technology Competencies against which teachers can be assessed. These competencies are based on the Mankato Skills Framework, developed by the Mankato Public Schools in Minnesota, US (ACCE, 1999). ACCE (1999) state clearly in their discussion paper on the use of competency assessment, that “any attempt to define or mandate competencies will only gain acceptance with the progression if it is supported by the provision of the necessary time, resources, equipment, support and professional development to allow teachers to gain competence” (p. 12).

The implications of making standards mandatory for ongoing teacher registration is beyond the scope of this study, but the rubrics being developed by a number of school authorities to assess teacher and student ICT competence are useful for determining whether teachers are likely to be able to be successful online curriculum writers and teachers.

### Characteristics of a Successful Online Learner

Many university and higher education institutions who offer external education programs via the Internet refer on their web sites to the characteristics and

skills a person should possess, or be prepared to learn, before they embark on a course of study (Howard Community College, 2001; University of Colorado, 2001; University of Illinois, 2001). The lists of descriptors exhibited by each university have similarities to each other and appear to have been constructed from a combination of published research findings, such as those derived from the “Virtual Classroom Project” experiment which Hiltz and her colleagues carried out in the US and from experience gained by university staff by observing students using the online learning mode. However, there appears to be limited research reports available in the literature to describe the characteristics required by a learner to be successful in an online mode of delivery in a secondary educational setting, resulting in the following discussion being derived from research conducted in the tertiary sector.

Post-secondary institutions began experimenting with the use of computer conferencing for undergraduate course delivery in the 1980s. One of the experiments that had been well documented was the Virtual Classroom Project where use of CMC was shown to be a viable option for course delivery. Hiltz (1994) refers to previous computer use, typing ability and the language used in curriculum delivery as causing no significant difference in learning outcomes, yet in her later research report (Hiltz, 1995), she describes how important literacy and skills in computer use are to student success. This second set of findings is supported by Kennedy (2000), who claims that in a study she conducted in 1999, among 321 students using online computer technologies, those students experienced in computer use performed better in the course than those students who felt awkward using computers. Harasim et al. (1995) conclude, with reference to the Virtual Classroom Project, that the factors determining student success in online courses were access to a computer with a modem, a positive attitude and motivation to study, and the self-discipline to participate regularly. It is this set of characteristics that appear to have been taken on board by tertiary institutions in constructing their lists of desirable attributes that a would-be online student should possess if they are to be successful in the online medium. The characteristics listed by tertiary institutions such as Howard Community College (2001), University of Illinois (2001), University of Colorado (2001) can be grouped into the following attributes; the learner needs to be motivated, be a self-directed learner, possess self-responsibility, have a liking of and competence in reading and writing, technical ability and access to a computer and modem.

### *Self-Direction and Responsibility*

Self-directed learning, according to Knowles (1975), describes a process in which individuals take the initiative with or without the help of others in determining their learning needs, setting their goals, choosing the appropriate learning strategy and evaluating learning outcomes. This definition is different to independent learning, because it usually takes place in association with various kinds of helpers, including teachers and peers. Self-directed learning, Knowles claims, is more in tune with our psychological development. He describes the need for us to become more independent as we grow and mature, first from our parents, and then from teachers and other adults. An important factor in becoming a self-directed learner is to develop the ability to take responsibility for our own lives.

In the online environment, the absence of a time table and the need to be present in person on campus to receive instruction, assignments and assessment feedback means that the learner has to be responsible for organising their learning time. Hiltz (1994) recognises the lack of regular class participation time as a potential disadvantage for students choosing online learning. She states that “unless participants have the self-discipline to set aside regular times to take part, they will fall behind and become passive ‘lurkers’ rather than responsible members of a learning community” (p. 14). Harasim et al. (1995) refers to an earlier survey by Harasim and Yung which revealed that students find the increased work and responsibility a negative aspect of learning online. This supports Knowles’ notion of self-direction being linked with self-responsibility, and is consistent with his warning that as new developments in education occur, such as open classrooms and external programs, a heavy responsibility is put on the learners to take a good deal of initiative in their own learning. “Students entering into these programs without having learned the skills of self-directed enquiry will experience anxiety, frustration and often failure, and so will their teachers” (Knowles, 1975, p.15).

### *Literacy Skills*

Problems highlighted by Hiltz (1994) when discussing features of online learning relating to educational access include those associated with textual skills. Students with poor reading and writing skills may have less effective access to the curriculum because the communication in currently implemented systems is based on writing (typing) and reading. Many of the university web sites e.g., Texas A & M

University (2001) and the University of Illinois (2001), suggest those students with poor literacy will need to take part in remedial literacy courses either before they begin their online course, or as part of it.

When teachers use the computer as the main tool of instruction, they can set their students to write, edit and publish their work in small groups, share their work and help each other learn. General purpose applications such as word processors and spreadsheets can provide students with supports for performing the academic tasks of writing, editing, analysing data, and locating information resources. The benefits of using editing features of the writing software, such as spell and grammar check, are seen by Hiltz (1994) and Harasim et al. (1995) as providing students with poor literacy skills a chance to modify their work before they submit it for peer review or to the teacher. Internet browsers and CMC can enhance students' ability to gain information and communicate with others at a time when the student is ready and has prepared their response or question. These comments would suggest that because a student can use ICT for their whole course, their literacy skills should be enhanced and access to the curriculum improved.

### *Technical Ability*

Students' level of technical skill in the use of computer software packages is an area of concern for developers of online courses because if poor, as Hiltz (1994) claims, this deficit will decrease "educational access". Little information is available as to what these specific abilities are, but there is some mention by authors regarding the need to use chat and e-mail facilities. There is little reference to writing programs, such as Microsoft Word and data programs, such as Microsoft Excel, although some of the university information pages do state that pre-enrolment courses in computer use may be taken if students believe their ICT skills are poor. Possession of these underlying skill sets by students appear to be assumed by authors in much of the analysis of effectiveness of online programs in the literature, and by course advisors when listing predictors of student success in online programs. For example, the University of Illinois (2001) web site simply states that an online student should be able to use the technology properly. The University of Colorado (2001) states that "the ability to use a computer allows the student to focus on the course and not the technical functions of the computer", but does not elaborate on what particular computer skills the student should have.

Online learning programs have a distinct set of characteristics that separates them from other learning modes. Flexibility and self-pacing appear to be two features that would appeal to students unable to attend an institution regularly. From a school-age student's perspective, the changed roles of the teacher and the student and thus the teacher-student relationship, may allow those who were not able to succeed in the classroom to succeed in the online environment.

### Why is Online Learning Suited to Students At Risk?

Earlier it was established that at-risk youth exhibit a wide range of personal characteristics that place them in danger of not completing school. One educational intervention strategy will not be appropriate for all, so a range of strategies are needed to accommodate the varied needs of this group of students. The following discussion attempts to draw together the educational needs of at-risk youth and the features of online curriculum delivery that may match these needs. It is not clear from the literature whether online courses have been offered to at-risk youth, and if so, what the effectiveness of these programs has been. Evaluations of successful educational programs for at-risk youth have the characteristics of flexibility, recognize different styles of learning, use adult learning principles and provide a positive, supportive learning environment. From the literature, it can be seen that online learning provides a flexible learning mode, can accommodate a range of learning needs due to being self-paced, is based on adult learning principles of self-directedness and self-responsibility and may be a supportive learning environment because it encourages collaboration with teachers and peers.

Online curriculum delivery provides the flexibility and portability described by several authors (Hiltz, 1994; Inglis et al. 1999; Koufman-Frederick et al. 1999; Partee, 1996), but as desirable as it may be for at-risk students it has had limited use within schools. There is a lack of opportunity for those students who do not meet the eligibility requirements of the distance education providers to access online curriculum delivery. At-risk students often leave school due to part-time work and need a flexible delivery mode. Dwyer (1996), Education Victoria (1998), Pocock (1998) and Webber and Hayduk (1995), emphasise the importance of flexibility in school structure to enable exit and re-entry, with part-time options for students at risk. All of these options could be easily met with online curriculum delivery.

The online environment, as described by Harasim et al. (1995), Hiltz (1994) and Koufman-Frederick et al. (1999), allows the students equal opportunity to be involved in the learning process. They do not have to speak face-to-face so can take time to formulate their responses, and ask the teacher questions via private e-mail if they do not wish others to be involved. Students with learning difficulties can be assisted by the use of the spell and grammar check attached to word-processing packages, and untidy work can be made into a neat presentation. The ease with which information can be obtained from web sites using search engines allows students to pursue their own interests and thus active learning. Means (1997) describes that the advantage of using ICT with students at risk is that the teacher can manage the students as a heterogenous group of learners and thus individualise their instruction because the students can work at their own pace and access information relevant to their particular interest.

The ability for an at-risk student to be engaged in individualised instruction is one of the recommendations repeatedly made in the literature (Dwyer, 1996; Education Victoria, 1998; Mapstone, 1999; Webber & Hayduk, 1995). Online learning can provide this type of instruction, as evidenced by numerous authors including Harasim et al. (1995), Hiltz (1994), Inglis et al. (1999), Jones et al. (1992), Koufman-Frederick et al. (1999) and Schacter and Fangnano (1999). This may give the student an opportunity to develop a different kind of relationship with their teacher, free from the social rules and expectations that regulate the classroom learning environment.

Many authors describe the features of an adult learning approach that can be integrated into programs for youth, including the learner being autonomous and self-directed, participating in decision making and encouraging student responsibility for their own learning (Dwyer, 1996; Mapstone, 1999; Webber & Hayduk, 1995). It is clear from the information on university and college web sites that possession of self-factors such as self-direction and responsibility is crucial for success in the online medium. However, as Knowles (1975) describes, our culture itself does not nurture the development of the ability to become self-directing during through the teen years. The result of this lack of learning is a growing gap between the need and the ability to be self-directing, producing tension, resistance and quite often rebellion by the individual which may be exhibited in and/or out of the classroom. Many students at risk of early school leaving have been thrust into the life of an adult without having

learned how to be responsible and self-directing.

Positive teacher-student relationships have been shown to be very important in the academic and social development of young people and are a major determinant of students remaining in school (Holden & Dwyer, 1992), but there is simply not sufficient research to suggest that the online learning environment can provide similar support. The changed role for students and teachers in the online environment may assist students who have a history of negative behaviour in the traditional classroom, because the student is not working face-to-face with the teacher and other students, so the social tensions which can dominate the classroom setting, are removed. Personality issues become secondary as the student interacts with the learning materials, rather than the teacher. Oliver (1999) warns that the potential of online learning can only be achieved if a shift in thinking required for understanding the roles of each participant occurs in those engaged in the learning process.

Gaines et al. (1996) describe that technology can help address new learning standards that are becoming widespread in the US to assist at-risk students, and that is a more authentic, project-based and outcome-driven approach. Technology can assist off-site learning, particularly to help those students who have not learned well in the traditional settings. Education Victoria (1998) also advise schools to implement more authentic tasks when supporting the learning of students at-risk and provide examples in their assessment and reporting materials for teachers to re-write assessment tasks to improve the learning outcomes for these students.

Oliver (1999) and Passerini and Granger (2000) suggest that online learning may allow a more authentic assessment to take place. Because the students have access to greater amounts of information than the traditional classroom, they can develop their own portfolio based on the range of learning experiences they have encountered through their course.

## Conclusion

Effective management of students at risk presents a range of challenges for schools. There is no research evident in the literature to establish that online learning has the potential to assist students who are at risk of leaving school early to remain connected to school. However, there are discussions in the literature that describe the need to offer students at risk more flexible learning opportunities. The literature discussing



successful programs describe in detail the need for flexible, individualised programs but tend to not describe the tension between this and students' capabilities, particularly the need for students to be disciplined and self-directed. The same dilemma can be seen in the description of online programs. Students who are not independent learners may struggle with the lack of timetables and requirements to be in a given place at a given time.

The literature reviewed in this chapter, although it deals mainly with tertiary level students, suggests that the online learning mode can provide the flexibility in learning opportunities that may benefit these students. The research carried out in this study tests this promise by investigating the implementation of the NLP, an online learning project at Muirden College. The research therefore aims to identify the skills, attitudes and analyse the experiences of students who accessed the SACE curriculum online. The development of the NetLearning Project and the involvement of the College teachers in the STAR 1 project are central to the collection and analysis of data from students and teachers. The next chapter describes the research design used to answer the research questions.

## CHAPTER 4

### METHOD

#### Introduction

This research aims to answer the general research question: What factors determine the effectiveness of students' online access to the SACE curricula? The specific research questions ask

1. What are the individual factors that allow students to be successful in the online learning environment?
2. What are the teacher factors that support students in the online learning environment?

This chapter begins with a description of the research design used to answer the research questions, followed by the selection of the sample of students and participating teachers. A discussion of ethical issues relating to this research emphasising the need to protect the rights of the students and teachers involved in the NLP is included. My role as the researcher and participant with the ways used to reduce potential bias are described, followed by the collection of data in the two phases of the research. The chapter ends with a description of the ways that triangulation in the study has been satisfied.

#### Research Design

The study follows the students involved in the NLP in 1998 and 1999; it documents their needs and experiences and reports their SACE performance in the subject(s) undertaken. Thus, the research design of the study is longitudinal and built around seven case studies of students who had participated in the NLP, together with their teachers. In order to obtain the detailed information required for examining students' interactions with, and response to, the NLP, a qualitative approach was taken based on interviews with students and teachers and analysis of students' work and communications.

The study was conducted in two phases over two years. Phase One occurred in 1998 with the research data being collected in association with a SSABSA research

project in which the College was involved at the time, namely the Students at Risk of Not Completing the SACE, the STAR 1 project. As the researcher was the Principal of the school and STAR project leader, issues relating to the position of the researcher and the trustworthiness of the data and analysis also need to be addressed. Phase Two began in Semester Two of 1999 with the findings from Phase One helping to modify and improve the NLP in its second year.

Overall the study was small scale and in-depth, and matches the ethnographic approach described by Creswell (1998) as it involved “prolonged observation of the group, typically through participant observation in which the researcher is immersed in the day-to-day lives of the people or through one-on-one interviews with members of the group” (p. 58). As researcher, I was totally immersed in the day-to-day operations of the school and involved in the interactions between the participating teachers and students.

Although Creswell (1998) suggests that an ethnographic approach and case studies are not entirely similar, in this research they seem to merge. A case study, according to Creswell, is an exploration of a “bounded system” explored over time through detailed, in-depth data collection, involving multiple sources of information and rich in context. In this study individual students and their experiences each formed a bounded system, since each had unique background experiences. Each student, however, presented with personal biographies putting him or her at risk of not completing the SACE and this, the criterion for selection in the study, provided the similarity between students, usual of an ethnographic approach. By using multiple case studies, sufficient data may be collected to draw some plausible conclusions for the study as a whole.

### *Phase One*

In 1998, three Year 11 students who, at the beginning of Semester Two, were not going to complete their SACE pattern without some form of curriculum intervention, were invited to participate in the NLP in an Economics unit. Their progress through the NLP was the focus of the SSABSA STAR research the College was involved in at that time. Data were collected from the students through Semester Two to the end of October when the final SSABSA report on the NLP was written. Further data were collected from the 1998 student group until the end of the semester. Thus, the research study involved collection of data for the SSABSA research project

and on-going data collection for obtaining more information relating to the research questions. As the research concerned access and participation in the SACE, the Phase One student group's achievement in the SACE was followed to the end of 1999 when they were due to complete the SACE. This was done firstly, so that success in achieving the outcomes of their Year 11 SACE Economics unit completed using the NLP could be obtained and, secondly, to see if they then successfully completed the SACE.

Multiple sources of information provided the data during Phase One, beginning with a series of teacher meetings when the idea of designing online learning programs was suggested by the school's Economics teacher, Cathy, as a way to improve access to the curriculum for those students unable to attend the classroom-based lessons. As the students progressed through the curriculum materials, informal progress interviews were held with their teacher. This allowed students' individual learning needs to be determined and enabled the teacher to make changes where necessary to the curriculum materials. This information was passed on to me as Principal at regular teacher meetings and recorded in the form of journal entries. Comments made by the participating students directly to me, and my observations regarding the participating students' attitudes to the NLP and interaction with the teacher were also recorded in the journal.

Formal progress interviews that coincided with mid-semester and end of semester reporting and informal progress meetings were held with each student to help me determine their progress through the NLP. Near the end of Phase One, a student-researcher interviewed each student to obtain their comments on using the NLP Economics unit rather than the classroom-based lessons they had experienced in the past. These interviews were audio-taped with permission.

### *Phase Two*

After the successful completion of the NLP Economics unit by the Phase One students, the curriculum offerings in the NLP were extended in 1999 to include English, Australian Studies, Business Mathematics, Biology and Personal Information Processing.

A new group of Year 11 students presented in 1999, some of whom had quite different reasons for not being able to access classroom-based learning to the Phase One group, but whose learning needs could be met with NLP. This second phase

group required curriculum intervention in Semester Two. These students were tracked through the semester of work undertaken in Semester Two via the NLP to final assessment in November 1999.

Information gained from student interviews at enrolment and progress interviews and meetings during their enrolment in 1999 provided the main sources of data in Phase Two. Comments from participating teachers to me at staff meetings and conversations with, and comments from, the participating students were also recorded in my journal. One of the student participants regularly corresponded with me using the e-mail and these transcripts were collected as data. Phone conversations between the parents and myself highlighting some of the problems with the students' ability to cope with the NLP were another source of data in Phase Two.

Although students are the focus in both phases of the study, teacher responses and reactions to the NLP are an important consideration in the research because it is their interaction with students that affects the individual student's learning outcomes. Although detailed analysis of teacher responses to their own teaching practice and the effects on them is beyond the scope of this study, sufficient data must be collected from teachers to provide a sufficiently detailed picture of the students' experiences. Thus a number of the data collection procedures (described later) included information from teachers.

In many ways, this study can be described as action research, because at each stage the data collected were interpreted and the next stage planned and implemented. Thus, there was continuous monitoring of student progress and changes made to try to address problems and issues as they arose. In particular, Phase Two of the study built on the learning from Phase One. Of course, the findings from Phase two also fed into planning for the continuation of the NLP in the school, but are beyond the scope of this research study.

### Sample

The sample was limited to the students enrolled at the school who required some kind of immediate curriculum intervention. The common factor among the participants was that they required a Satisfactory Achievement SACE result for at least one Stage One subject. The selection of the sample was a matter of mutual consent between the subject teachers, the students, and myself. Each student involved

was invited by me to participate in the NLP after the need for some kind of curriculum intervention was identified. The timing and reasons for each of these interventions are outlined below. A random sample was not used as all of the students involved in the program agreed to be participants in the study. In this sense, given the uniqueness of the project, the entire population of students at the College who were at risk of not completing the SACE Stage One requirements, rather than a sample of them was involved. The students and teachers in the study have been identified by pseudonyms.

In Phase One, the three participants required a “Group 1” subject from the SACE pattern, which enabled the one subject, Economics, to be used for all three students. Jane was not willing to attend the classroom-based Economics lessons because she had a history of conflict with the classroom teacher. Brad was in a similar position, but had a history of irregular classroom attendance in all of his subjects and this was affecting his chances of completing the SACE. James had transferred from another school and had not successfully completed all of his Semester One units, receiving a Requirements Not Met result for two units requiring him to take an overload in Semester Two.

Phase Two of the project involved a group of four students who required intervention for different reasons to the Phase One participants. Sally was unable to complete the Semester Two work at school due to complex family problems so she accessed the NLP away from school to finish three Stage One units. Craig had transferred from another school at the beginning of the semester and had not completed the compulsory Australian Studies unit. He also wanted to take Mathematics Two, but the College subject lines had a clash between Mathematics Two and Australian Studies. An option for him was to complete the Australian Studies unit through the NLP, rather than the alternative that would involve him trying to complete it with his full-time Stage Two studies in the following year. Alison had enrolled in Stage One units at the beginning of 1998, but due to recurrent illness was unable to complete Semester One and left school. At the time of her leaving, the College had not developed the NLP. She had contacted the College during her absence indicating that she would like to continue her schooling at some stage. I contacted her at the beginning of 1999 offering the option of the NLP because I felt she was a person who could benefit from the flexibility offered by online delivery. She re-enrolled at the beginning of Semester Two of 1999. John had

a history of behavioural problems, and by early Semester Two, relationships between him and the English teacher had deteriorated to such a state that he was put on class suspension. To enable him to complete the work requirements of the English unit he accepted the offer of continuing the subject online with a different teacher.

The students, the subjects they completed, and the year in which they were involved in the NLP are indicated on the table below.

Table 4.1: Subjects Taken by Students and the Supervising Teacher

| Student                    | Subject(s)                       | Teacher |
|----------------------------|----------------------------------|---------|
| Phase One: 1998 Semester 2 |                                  |         |
| Jane                       | Economics                        | Cathy   |
| Brad                       | Economics                        | Cathy   |
| James                      | Economics                        | Cathy   |
| Phase Two: 1999 Semester 2 |                                  |         |
| Alison                     | Personal Information Processing, | Cathy   |
|                            | Business Mathematics             | Cathy   |
|                            | English                          | Sue     |
| Craig                      | Australian Studies               | Bronte  |
| John                       | English                          | Sue     |
| Sally                      | Biology                          | Peter   |
|                            | English                          | Sue     |
|                            | Business Mathematics             | Cathy   |

Note: Pseudonyms are used for all participants except the researcher

The teacher sample included only Cathy and Sue because these teachers had the most involvement in the NLP. Cathy initiated the use of online curriculum delivery at the College through the development of the Economics unit in Phase One, and Sue began to develop her English unit during Phase One although it was not used until Phase Two. In terms of curriculum development and delivery, Peter and my roles were limited to one subject and one student so our cases have not been included.

### Ethical Issues

The nature of the study raises a number of ethical issues associated with

dealing with students whose lives are often quite different to the typical in-class student who is not at risk of failing to complete the SACE. For example, the student may be suffering physical abuse at home and is not able to attend school for fear of teachers asking questions about visible injuries. Past schooling experiences may have been particularly traumatic with the student having suffered bullying by both fellow students and/or teacher(s), resulting in belittlement and victimization in the classroom leading to a deep sense of powerlessness.

Considerable care had to be taken when interviewing, observing and in general discussions with the students to maintain mutual respect. As they were at risk of leaving school if the NLP did not go well for them, students needed to be reassured that participation in the NLP and its subsequent evaluation would not jeopardise their chances of success and not affect them in any other way. In devising and implementing the study, the Australian Association for Research into Education's (AARE) Four Basic Principles of the Code of Ethics (Bibby, 1997) guided the collection of data. They are as follows:

1. The consequences of a piece of research, including the effects on the participants and the social consequences of its publication and application, must enhance the general welfare.
2. Researchers should be aware of the variety of human goods and the variety of views on the good life, and the complex relation of education within these. They should recognise that educational research is an ethical matter, and that its purpose should be the development of human good.
3. No risk of significant harm to an individual is permissible unless either that harm is remedied or the person is of age and has given informed consent to the risk. Public benefit, however great, is insufficient justification.
4. Respect for the dignity and worth of persons and the welfare of students, research participants, and the public generally shall take precedence over self-interest of researchers, or the interests of employers, clients, colleagues or groups. (p.116)

The first and second of these principles are met if the outcomes of the research enable a more effective NLP for future students. A curriculum innovation such as the NLP must be evaluated if it is to be maintained and improved.



Bibby's (1997) third and fourth principles were considered carefully during data collection. He describes the problems that may be associated with deception and secrecy. He suggests that people should know when they are to be participants in research and be asked for informed consent and given the opportunity to withdraw at any time. Gaining informed consent for the two phases of the research was achieved through provision of a written document, named "the consent form" (a copy is in Appendix B) for each participant describing the NLP, the need for research, who would be involved in the research, data management and an opportunity to review the final research data. This document also explained what kinds of information from students (e.g., interviews and documents) would be used as data in the research. After I had conducted a brief discussion with each participant outlining the NLP, each was given the consent form to read further and requested to return the consent form to me signed. The opportunity to withdraw from the research project but to continue studying in the NLP was explained. In addition, parent consent was also sought and received for those students under 18 years of age.

The students' and teachers' privacy had to be protected and confidentiality maintained, so pseudonyms are used in the reporting of the research. In the students' personal biographies their age and gender have not been altered, but references to previous schools attended and the suburbs in which they live(d) have been omitted to maintain confidentiality. In addition, the students were given the opportunity to read, and some chose to delete sections of information from, their personal biographies.

It was equally important that the teachers' rights were protected during the data collection process. They also were given the consent form and I explained their role in the research and the ways in which data would be collected and used. They were also informed that pseudonyms would be assigned and their confidentiality respected. I had to be careful that they did not feel under pressure to respond to my questions in meetings in ways they thought would please me. An open discourse was essential so the student's needs could be met and any budgetary issues, such as extra program development time, could be dealt with quickly.

The NLP was implemented as a strategy to improve access to the SACE curriculum, so to avoid students missing whole units, or parts of units, the teachers were required to be committed totally to the NLP and were made aware of their ethical responsibilities to the students throughout the duration of the NLP. There was no compulsion on their behalf to write the programs, or to teach the students.

Participation in all phases of the NLP was voluntary. In fact, two teachers who showed great interest in the early staff meeting discussions withdrew their expression of interest after a few weeks. The staff who continued to be involved volunteered for the NLP and treated the NLP as an adjunct to their normal classroom teaching rather than an extra burden. For the NLP to be a success in terms of student outcomes and to protect all parties involved, I ensured the teachers understood that once they agreed to have students in their subject they would need to be able to continue teaching the students until each one had completed the NLP unit of work.

Phase One of the NLP was supported financially and in-kind by both the school and SSABSA. A cash grant from SSABSA for participation in the STAR project enabled teachers to be paid an honorarium for subject development, implementation and evaluation. There was also an understanding between SSABSA Assessment Services and all school-based STAR project teams that each project's style of curriculum delivery would be accepted, and the SSABSA assessment plan approval process would involve consultation with the school to ensure any problems with task requirements could be resolved before students began their course of study.

The students in both phases of the study were given a verbal overview by me of what the NLP involved when they were invited to join the NLP, including the need for a degree of proficiency in computer use and access to the Internet, who their contact teacher(s) would be and that successful completion of the subject assessment would lead to Satisfactory Achievement (SA) in a specific SACE Stage One unit. Involvement in the project did not mean they had to consent to an interview or other forms of data collection.

### The Role of the Researcher

I was an active participant in the events being studied and also the researcher. This placed me in the role of participant-observer, according to Yin's (1994) description, which discusses participation-observation as a special mode of observation, not merely a passive observer, but actually participating in the events being studied. As the Principal, I had the ability to gain access to the students and teachers when I required, by manipulating minor events, such as calling staff meetings, NLP team meetings and student interviews. Because I had control of the budget to provide financial support to the teachers, I could organise release time for

teachers to meet with me to discuss the progress of the NLP. I also had access to the participating teachers' written reports and was able to collect information from enrolment interviews from parents and students, particularly evidence from the students' previous schooling experience.

Yin (1994) describes a range of problems related to potential bias that could be produced by the conflicting roles of being researcher and participant in the data collection. The first problem Yin describes, relates to the need for time to collect sufficient observation notes and to raise questions about events from different perspectives. Secondly, Yin (1994) warns of possible bias when the participant-observer becomes, or is already a supporter of, the organisation involved in the study. I was the Principal and wanted the NLP to be a success, so I had to avoid bias in data collected by me from the student and the teachers. Having the teachers report to me the student responses from their own meetings with them was another attempt to get a different perspective from my own. The strategy of using a student-researcher to obtain the students' voice through a peer was intended to reduce potential bias. Finally, Yin (1994) describes "the researcher has less ability to work as an external observer and may, at times, have to assume positions or advocacy roles contrary to the interests of good scientific practices" (p. 89). I was very conscious of potential bias due to my role as Principal and attempted to overcome this by using a student-researcher and the subject teachers and University of South Australia researchers as observers so that four sets of observations, my own, the teachers and the student-researcher's and university researchers could be gathered and compared for consistency. As Principal and teacher, I was concerned that taking an interviewing role in data collection might be perceived as threatening by students, or might in some way restrain their participation. It seemed more appropriate that a different person should be involved in the face-to-face data collection. This person needed to be someone whom the students could trust, and know that their confidentiality would be respected and their comments would not become widely known in the College. To this end, I decided that a trusted fellow student could be their interviewer. Each of the 1998 participants agreed to this. Two requested to be interviewed together, and the third did not want any person, other than the student-researcher, present.

A fellow Year 11 student who was well respected by all of the students and teachers at the College was requested to become a student-researcher in Phase One of the NLP. I approached her with the key questions we wanted to ask of the students,

and instructed her on how to proceed with the interview. The questions we discussed are included in Appendix C. In order to avoid contamination of the data, however, it was crucial that the questions were open-ended and answers not influenced in any way by the interviewer's own assumptions, or by giving hints or guessing at some perceived response. Her role was to initiate discussion with the students on the nature of the learning process, and to try to obtain both their positive and negative comments on the NLP. I felt that if I were the interviewer, students would be under duress to make comments they may not really believe, but would perceive as being "correct". In my earlier discussions with the students, they hinted that this would be a problem and that they would prefer a student to interview them. By using the student-researcher I was endeavouring to uphold the comment made by Bibby (1997) on the importance of experiments in schools being with children, rather than on them.

My role in Phase One of the project was determined by the SSABSA STAR research. I was required to coordinate the project within the school and give regular progress reports to the SSABSA STAR group meetings. As a result, I conducted regular meetings with Cathy (a pseudonym), the Economics teacher, during both the development phase of the curriculum materials, and during the time in which the students were completing their work. I also conducted the student enrolment interview, progress interviews and progress meetings, and liaised with other staff members to allow Cathy release time for writing and participating in meetings. I also presented progress reports to the teachers at general staff meetings because this was a study that could initiate whole school change.

For the Phase Two group of students, I was involved in providing the link between the students and the teachers participating in the NLP, and as the teacher for one of the units undertaken by one of the students. Through this involvement I was able to collect data from interviews held mainly over the phone or via e-mail, because some of the students were not attending any day classes at the school. A student-researcher was not used in Phase Two. The interviews that occurred between the student and myself were those conducted as part of the normal counselling process at the College, namely the enrolment interview and the mid-semester progress interview. Additional progress meetings occurred if the student's progress through the NLP required review.

## Data Collection

The students and teachers involved in the NLP were working with me as a team throughout both phases of the research enabling data to be collected in a variety of ways, using observation, interviews and written reports. I was able to observe the students and teachers involved in the program many times during the study, when there was communication between them, or when the students were working on their own, or when teachers were designing the curriculum, thus data collection was not restricted to specific pre-selected lessons, pre-arranged interview times or other barriers that could affect the authentic nature of the data. Table 4.2 contains an overview of the data collection during Phase One and Two.

Structured interviews were included in the data collection, including enrolment and progress interviews and the student-researcher interviews that occurred in Phase One (refer to Appendix C for the list of questions). Informal progress meetings occurred between each student and myself during their involvement in the NLP.

### *Student-Researcher Interviews*

Erin, the student-researcher, interviewed each of the three case study students in Phase One of the NLP at the end of October 1998. Jane and Brad were interviewed together and James on his own. The interviews were recorded on audio-tape and later transcribed. The transcriptions were given to the students to review and make changes if required. This was also an opportunity for students to withdraw from the project if they wished.

The interviews took place at the school in isolation from other students and teachers. Erin conducted a semi-structured interview with Jane and Brad. She used the list of interview questions (see Appendix C) as a guide. The questions covered student's reasons for being at school and factors that kept them motivated to complete their studies. The second part of the interview focused on their feelings regarding the use of the online mode of curriculum delivery. This interview took 35 minutes.

The second interview, conducted between the student-researcher and James, was quite different in its nature. James was quiet and unwilling to talk, even though he had agreed to the interview, which led the student-researcher to choose a different path of inquiry. She started by asking him his feelings about his previous schooling,

and then moved on to his opinion of the online delivery mode. Nevertheless, this interview was shorter than the interview with Brad and Jane, lasting 15 minutes. To complement the views of the at-risk Year 11 students in the case studies, an interview was conducted by the student-researcher with two Year 12 students who had successfully completed Stage 1 in the traditional classroom setting, and were on track to complete their SACE. The interview took place under the same conditions as the others with questions focusing around motivation factors for them to complete the SACE and reasons why they thought other students had dropped out. This was not intended to be a “control” group, but was necessary to generate discussion between students to identify factors the students believe important for classroom-based learning to be successful, and to identify the characteristics of successful students.

#### *Student Enrolment Interviews*

As Principal, I interview each student who enters the school to discuss the student’s needs and goals. The general behavioural and academic expectations of students who attend the school are also outlined to the prospective student at this time. Information from these interviews is noted and kept in the student’s file. This information provides baseline data on the student, such as Youth Allowance entitlement, living arrangements, educational background, age, illness/disability, country of birth and arrival year in Australia, the main language spoken in the family home and any behavioural issues.

Information gleaned at this time was used to help construct each student’s personal biography. The enrolment interview provided baseline data and a starting point for further discussion in regard to the biography, with other factors such as casual comments from the students and their parents recorded in my journal during the year, and comments from the student progress interviews and meetings added information to the biography during the Phase. Three of the Phase Two participants’ situations changed greatly from enrolment time to the end of the study, with most information for their biographies being added as the year progressed. A discussion between each student and myself took place after the profile had been constructed so that each student had the opportunity to add or delete information where appropriate. As a result, some of the personal information has been omitted from Brad’s and Jane’s biographies at their request.

Table 4.2. Overview of Data Collection

| Technique                    | Time   | Data Collected by  | Data collected from            |
|------------------------------|--|--------------------|--------------------------------|
| Student enrolment interview  | When student enters the College  | Researcher         | Student and parents            |
| written subject reports      | mid-semester<br>end of each semester   | Teachers           | Students                       |
| progress interviews          | mid-semester<br>end of each semester   | Researcher         | Students                       |
| Student progress meeting     | As required  | Researcher         | Students <sup>a</sup>          |
| Student-researcher interview | End of Phase One   | Student-researcher | Students                       |
| SACE results                 | End of each semester   | Teachers           | Students                       |
| Researcher's journal         | Throughout the study   | Researcher         | Students, teachers and parents |
| Teacher meetings             | When a student is being<br>considered for entry into a NLP<br>subject<br>As required | Researcher         | Teacher                        |
| NLP team meetings            | Throughout the study   | Researcher         | teachers                       |

<sup>a</sup> The mother of one student was included in two progress meetings.

### *Student Mid-Semester and End-of-Semester Progress Interviews*

The mid- and end-of-semester progress interviews were conducted by me and form part of the school's reporting process. They follow the release of the teachers' written subject reports which are due at those times. It was during the end-of-Semester One interview that students were invited to participate in the NLP. The students were made aware of their progress towards their SACE and given options to help them make an informed decision regarding involvement in the NLP. The main alternative to the NLP was the student undertaking a subject overload in Year 12 that would involve doing the required Stage One subject at the same time as their five Stage Two units. This adds sixty contact hours per unit to the student's full time load. Notes made by me at these counselling times were also used at staff meetings when the possible inclusion of participants in the NLP was being discussed.

### *Student Progress Meetings*

In addition to formal student progress interviews, I conducted an informal student progress meeting early in Semester Two with each of the Phase One students. As the Phase Two students did not enter the NLP at the same time, their meeting times were as required, prompted by teacher, parent or personal concern about their progress in the NLP. These meetings allowed each participating student to raise problems or concerns they may have had with the program through discussion in a casual, non-threatening setting. In Phase One the meetings occurred in the library where the students would go during "free" lessons to study and use the computers to complete their work. During Phase Two, the meetings occurred through e-mail communications, phone conversations or school-based meetings. In both phases, the meetings were initiated by me for the purpose of gathering data about the students' perceptions of the NLP with student comments and my observations recorded as written notes, or e-mail hard copy.

### *Middle- and End-of-Semester School Reports*

Middle- and end-of-semester reports were written for each student enrolled in the school, regardless of which mode of learning they were using. The reports include teachers' comments on progress, attitudes and grades. These reports were a particularly useful counselling tool for the mid- and end-of-semester interviews because they provide an indication of the student's achievement, attendance and



attitude. In addition, the end-of-semester school reports also include the SACE result and school marks reported as a score out of 20. This information was used to initiate discussion with the student with regard to their academic progress.

### *SACE Results*

As for all other students, the teacher determined the level of SACE achievement for all the NLP students at the end of each semester based on the standard of tasks and subject objectives completed during the summative assessments in the unit of study. As described in Chapter 1, student achievement is reported to SSABSA as a Satisfactory Achievement (SA), Recorded Achievement (RA) or a Requirements Not Met (RNM). SSABSA collects the school data at the end of each semester and early in the following semester issues a Statement of Results to each student including the subject name and their level of achievement. While the student is undertaking SACE studies, completed subject results are added at each data collection phase.

### *Researcher's Journal*

My immersion in the school environment enabled me to make observations that varied in their nature and focus during the data collection phase. One of the roles of the Principal at the College is the day-to-day subject and personal counselling of the students. Counselling tends to occur after a subject teacher raises a concern either formally during a staff meeting, or during informal conversations in the staffroom. This might be concerned with a student struggling with a specific subject(s) or exhibiting behaviour problems, such as non-attendance, and enables the concerns to be followed up immediately through discussion with the student. Comments made by NLP students regarding their learning and schooling which appeared to be relevant to the research were noted in the journal, as well as specific comments concerning their NLP unit study and progress. In this way, general comments concerning students' perceived progress could be noted and then compared to teacher comments collected during teacher meetings and NLP team meetings.

The researcher's journal also contains notes from parent contact that occurred either over the phone or face-to-face. At the College, formal contact with parents tends to be limited to the enrolment interview with other meetings only being requested by me when the student's progress through the SACE is under threat. In

some situations, such as in Alison's case, students may initiate a meeting with me and invite their parent(s).

### *Teacher Meetings*

To ensure accurate information was being collected about student progress through, and reactions to, the NLP, I met with each of the NLP subject teachers individually, at least once while they had a student studying their subject. Cathy had three students studying Economics in Phase One and we met three times during Semester 2 1998, with comments made by Cathy regarding her perceptions of the students' ability to manage the online learning process being recorded in writing and then compared to the student-researcher interview transcripts for consistency.

During Phase Two, Cathy and I met once in Semester Two 1999 to discuss the two students she had studying Business Mathematics and Personal Information Processing. Sue had three students enrolled in English, each entering at a different point during Semester Two, 1999. Six teacher meetings took place, with one of these involving Alison and her mother, providing data relating to Sue's students' perceptions of the English unit and the NLP, which were recorded as written notes.

### *NLP Team Meetings*

Four formal meetings involving the NLP team occurred in my office during the time of the study. An agenda was circulated before each meeting to enable each teacher to prepare and contribute to the discussion. The meetings also provided an opportunity for teachers with students enrolled in the NLP to voice concerns and report progress of their students. The NLP team consisted of myself and four teachers, three of whom had students enrolled at some stage during the NLP, with the other teacher providing online support material, such as "How to use Excel" and "Study Skills". The Webmaster (who was a private computer consultant and a College Board member) provided guidance on the layout and presentation of the curriculum materials the teachers developing the programs should be using. The agenda document for each meeting provided the structure for recording notes of the team comments.

### Triangulation of Data

As the Principal throughout the study I could be termed a “privileged observer” (Wolcott, 1988, p. 194) in Phase One because, while I was not actively teaching any NLP units or programs, I was the researcher involved in observing and recording Phase One student and teacher comments. In Phase Two, I became an “active participant” (Wolcott, 1988, p. 194) because not only was I the principal researcher, but I was also developing NLP curriculum and teaching within the NLP. It was important, therefore, to limit interviewer bias to ensure the integrity of the data and to obtain rigour in the research by means of triangulation. This was achieved as Wolcott (1988) describes, through obtaining information in many ways rather than relying solely on one.

Triangulation in this study is satisfied by collecting data over a period of time, and by making use of the “multiple and different sources, methods, investigations and theories to provide corroborating evidence” (Creswell, 1998, p. 202). As previously described, there were various data obtained directly from the participating students: enrolment interviews, mid- and end-of-semester progress interviews, progress meetings, and an audio-taped student-researcher interview. The viewpoints of teachers in the NLP with regard to the participating students’ progress were reported to the researcher through teacher meetings, interviews and written school reports.

Two other groups of evaluators were included in data collection, with a “student-researcher” being involved in data collection from the three Phase One participants and the NLP subject teachers contributing to the research through providing data on their meetings with the participants. Phase One students were given copies of, and the opportunity to modify, their “personal biography” constructed from their enrolment interview, the student-researcher interview transcript and the researcher’s journal. They were also given opportunity to check the student-researcher interview transcript for accuracy and to modify as required. This gave an opportunity for, as Creswell (1998) describes, respondent validation, where the beliefs and behaviours of the students recorded by the researcher and the student-researcher could be validated by the students.

Researcher observations made through day-to-day contact with the students and teachers constructed my journal. I referred to my journal notes during data collection from teacher-to-researcher and student-to-researcher interviews and meetings, enabling me to verify the accuracy of my notes and observations. Added to this, was the SSABSA STAR reporting process, where at each of the meetings, I was

required to present a brief project progress report including any problems or unexpected outcomes from the NLP. Some meetings required that I present a response to a particular issue, such as how were we to define student success in the NLP and how were we managing ethical issues. Other STAR project team members, including SSABSA staff, the university researchers and other schools' participants could then ask questions. I discussed my report with the College NLP team before presenting it at the meeting, allowing the teachers and myself another opportunity to review data collected.

In the following chapters, the data are analysed and presented in the form of detailed case studies. These have been built around the various sources of data to provide a picture of the students' and teachers' experiences throughout their involvement with the NLP. Chapter 5 contains the seven student cases, Jane, Brad and James from Phase One, and Craig, Alison, John and Sally from Phase Two. Chapter 6, the teacher case studies, includes Cathy and Sue, who had considerable teaching and curriculum development in the NLP.

## CHAPTER 5

### STUDENTS' CASE STUDIES

In this chapter, the case studies of the seven students involved in the NLP are presented. The chapter is divided into three sections, with the first reporting the experiences of students who accessed the NLP during Phase One, and the second, reports on Phase Two. In the third section, a synthesis of the cases is presented, where the experiences of the students are brought together to identify the factors that determined the level of student success in the online environment.

#### Phase One Case Studies

In this section, case studies of Jane, Brad and James are presented to illustrate the experiences and responses of the three Phase One students to the NLP. Table 5.1 lists the data collected about the students used to construct the case studies. Although the Phase One participants were all involved in the same subject, Economics, each student's life experiences provide a different perspective to the effectiveness of the NLP for assisting students at risk of not completing the SACE to access the curriculum.

The way each of the students tackled the NLP differed, depending on their access to a computer and their preferred learning style. They could choose to do the unit during the "free" lesson that they had, at home, or a combination of the two. All of the unit materials were available on the school web site including topic outlines with text readings, hyperlinks to web sites required for research tasks and both formative activities and summative assessment tasks. The topic outlines contained sufficient detail for the student to work independently. A "help" icon was placed regularly throughout the materials and provided a hyperlink to the teacher's email.

#### *Jane*

##### *Background*

Jane previously attended a large high school in Adelaide's northwestern suburbs but, when she reached the legal school leaving age of 15 years, she left before completing

Year 10. Jane was 17 years old when she enrolled at the College. School reports written by her Year 10 teachers and viewed during her enrolment interview indicated a student of above average ability, but with a dislike of school and authority. Through occasional conversations with her mother during the early part of her enrolment at the College and casual comments from Jane recorded in the researcher's journal, it became apparent that she had experienced disrupted middle schooling. Her out-of-school life took precedence over her schooling and she was a regular truant. She was, as Dwyer (1996) describes, a "circumstantial leaver" because she took the opportunity to leave as soon as she was legally able due to problems of truancy and poor behaviour at school. She was able to find full-time employment immediately as a retail sales assistant with a national franchise, and was quickly promoted to Assistant Store Manager, giving priority to paid work, so according to McIntyre et al. (1999) she would be said to have an "occupational focus" to her leaving school.

Jane's parents had separated some years before, with Jane choosing to stay with her father while her younger sister remained with her mother. Soon after gaining full-time work Jane left her father's care and lived with her boyfriend. As she had been independent from her parents for over two years, on returning to full-time study she was eligible for the full Independent Rate of Youth Allowance, the government welfare scheme for students with low incomes. *Motivation for Returning to School*

During the enrolment interview with Jane in January 1998, she expressed a strong desire to complete school and go to University. She stated that her friends who had left school at the same time, and not found full-time work were "drop-outs" and "failures". She described her dislike of her current job, using examples of long working hours and low pay as motivation for her wish to "better herself". These comments were supported by her reflective remarks during the student-researcher interview in October regarding her motivation to return to school when she replied, "I know what it's like to have a 'shit' job...". Jane was able to describe clearly at enrolment why she had chosen the College as the institution in which she wished to resume her schooling. She had a friend who had attended the College in the previous year whose schooling experiences and life situation prior to entering the College were similar to hers. Her friend had described the flexibility of the College, with her not having to attend when she did not have a class, that there was no set uniform and only Year 11 and 12 students attended. Jane was relieved to learn at the

Table 5.1 - Data Collection for Students in Phase One 1998

| Date     | Jane   | Brad   | James   |
|----------|--|--|---|
| January  | Enrolment interview for entry into Year 11                                 | Enrolment interview for entry into Year 11                                 |   |
| March    | Disciplinary counselling   |  |   |
| April    | Mid-semester written subject reports<br>Mid-semester progress interview    | Mid-semester written subject reports<br>Mid-semester progress interview    |   |
| June     | End of semester reports and SSABSA<br>results collection                   | End of semester reports and SSABSA<br>results collection                   |   |
| July     | Progress interview<br>- invited to participate in NLP                      | Progress interview<br>- invited to participate in NLP                      | Enrolment interview for entry<br>into Semester Two of Year 11                         |
| October  | Progress meeting   | Progress meeting   | Interview to be invited to<br>Participate in NLP                                      |
| October  | Meeting with Brad and researcher<br>- discussion of final interview format | Meeting with Jane and researcher<br>- discussion of final interview format | Progress meeting<br>Meeting with researcher<br>- discussion of final interview format |
| November | Student-researcher interview   | Student-researcher interview   | Student researcher interview  |
| November | End of semester reports and SSABSA<br>results collection                   | End of semester reports and SSABSA<br>results collection                   | End of semester reports and SSABSA<br>results collection                              |

interview that she did not have to stay in the College when she did not have lessons. Further, she would have Fridays “off” because no lessons were programmed for the Year 11 students, and she commented that this would allow her three full days when she could work, so she was able to cut back her week day hours of work.

Even though Jane had been out of school for 2 years, she did not meet the SSABSA eligibility requirements for adult block status because she was not over 18. I informed her at her enrolment interview that she would be required to complete all of the SACE requirements, but this did not seem to concern her because she had made up her mind to return to school, and was prepared to invest in her future to ensure she could get into university.

### *Jane’s Perceptions of a Successful Student*

During her enrolment interview, Jane presented as a student who would be unlikely to complete school because she did not have the support structures generally required for students to be successful. Jane’s school reports from her first semester at the College in June, 1998, together with positive comments regarding the standard of her work from her teachers at staff meetings, clearly indicated that she was a student of above average academic ability. Her English teacher, Sue, commented on her “beautiful style and excellent text analysis”, statements which were supportive of comments from her teachers in reports from her previous school.

Journal entries recording casual conversations with Jane throughout the year captured her concerns about balancing 20 hours or more of paid work per week, with the requirements of full-time school. Cathy, her NLP teacher, stated during the July teacher meeting that she was concerned about Jane’s ability to attend school because she found the travelling to school hard. Because Jane lived some distance away, she needed to catch two buses to get to school, and getting up in the morning was becoming difficult because she was tired from working or studying the night before. Her reflective comment to the student-researcher in October reinforces Jane’s dilemma; “I live too damn far away... getting up in the morning ... I just can’t get myself out of bed”.

Observations of her interactions with her peers in the library suggested that she was irritated by some of the younger students in her classes, particularly when other students complained of being tired or not having enough time to complete their work. She would make comments like “stop whingeing, at least your parents pay



your fees”, and would remark about other students not having to do their own cooking, washing and other domestic chores. Jane realised that her life situation was not “ideal” for success, commenting on her determination to get SACE to the student-researcher, “I’ll get it [SACE], even though I’m ‘working against the odds’”.

When Jane discussed with the student-researcher why she thought other students with good support structures (such as living in a stable family situation with parents paying their fees) were not being successful, she replied “laziness, just plain laziness”. Jane also expressed disagreement with the “system” which allows students to leave school early with comments such as “it’s too easy for young people to get work, and it’s too easy for them to get unemployment [benefits] as well, [the] school leaving age should be increased to 16-17” (Student-researcher interview, October, 1998).

#### *Selection for the NLP*

Jane stated during her enrolment interview that she had returned to school for a “new start”. At this time she expressed her desire to be able to finish school because she now had the motivation she felt was required for success. She admitted to not being a “model student” in her previous school in terms of her behaviour, and had often been involved in fights with other students at the school. However, in March 1998, less than two months after her enrolment at the College, she was suspended for three days after a physical assault on a fellow Year 11 student. During her disciplinary interview she was extremely distressed that she may have “blown her last chance” for completing school. She commented that no other school would take her as she had a poor behaviour record. At this interview she agreed to enter a behaviour contract, where a failure to uphold the conditions, which included no more violent outbursts, either physical or verbal, against any student or teacher within the College, would lead to expulsion. In June, at the initial staff meeting to discuss the NLP, the teachers agreed that students like Jane would be particularly suited to the NLP because there was either conflict with the classroom teacher and/or their behaviour caused problems in the classroom. During her June progress interview, Jane was invited to participate in the NLP. She appeared very keen because she did not want “to go in that room again” with the teacher who took the classroom-based Economics whom she disliked, and participation would remove her from a group of students she

also did not like. For Jane, being able to complete work using the NLP enabled her to escape a negative teacher-student relationship she found difficult to manage.

### *Jane's NLP Experience in Year 11*

When I asked Jane about her computer literacy skill during her June progress interview she responded confidently, "I can type and do stuff like that". I also asked her if she had access to a computer and the Internet at home. She replied that she did not, but that she thought she could go to her mother's house and use hers when she needed to. However, the NLP Economics teacher Cathy, reported at the July teacher meeting that Jane's computer skills was restricted to basic keyboard skills. She needed to spend time with Jane to ensure she could complete the tasks in the Economics unit requiring use of computer applications such as Excel and Internet use. During Jane's progress through the Economics unit, she expressed gratitude to Cathy to have the opportunity to learn use of Excel, and facilities provided through the Internet such as search engines and e-mail, skills that she may not have had the opportunity to develop otherwise.

Jane's high intellectual ability enabled her to deal easily with the subject content but her low level of skill in using the computer applications was a barrier to the learning process and task completion. She commented, "it [NLP] would be good for those computer whizz kids who like doing that kind of thing". Cathy had observed during the early stages of the NLP that Jane was having considerable difficulty using the Internet and Excel, but was understanding the Economics concepts and doing well in tests. Cathy also commented at the July teacher meeting that Jane was tending to select essay and extended writing tasks, avoiding the questions requiring graphs, because her literacy and word-processing skills were of a reasonable standard. Cathy also noted that where necessary, she was drawing graphs by hand, thus avoiding use of the Excel application. She would also go to the staffroom to see Cathy, rather than e-mail her.

Jane clearly preferred the personal contact with Cathy, commenting at her July student progress meeting with me that she was happy to ask Cathy for help and that she "gives help straight away, whatever the problem is". She stated, "It's better than being in the class". By September, Cathy was able to observe an improvement in Jane's use of computer applications, particularly Excel. Jane was still hesitant to use e-mail as a method of communicating with Cathy. As Jane stated in the student-

researcher interview held in late October, she had not learned how to use e-mail until the week before.

Student-researcher: Can you come to school and ask the teacher, Cathy, if you are unsure of something?

Jane: Oh, you can e-mail her, but you've got to learn how to use the Internet, which is something I learnt last week!

(student-researcher interview, October, 1998)

Jane was able to identify during the student-researcher interview the features of the NLP she did and did not like. The disadvantages she found included the need for a high level of organisation and to be proficient in computer use.

Student-researcher: Do you have any areas you're having difficulties with?

Jane: No, it's easy work, I understand what it is, but parts are hard, especially with Economics because you've got to do graphs and stuff, and it's hard to know how to put that back on the Net. It's a disadvantage because I don't know how to use the computer... Yeah, the work's easy; you just have to know how to use the computer, the Internet and stuff.

(student-researcher interview, October, 1998)

During Jane's last student progress meeting with me late in October, she stated that she had completed the work, understood it, and was happy with her progress. She was glad she had the opportunity to do the subject, and enjoyed the independence the NLP provided, even though she completed most of the work in the library at the College, rather than at home. At the end of October, during the final teacher meeting, Cathy announced that Jane was now using e-mail and had used it effectively to submit a summative assessment task, however, use of the Internet was still a barrier for her and she had still not completed the final research assignment. This was contrary to Jane's comment to me that she had completed her work. She was, according to Cathy, able to select appropriate key words for a search, but had difficulty discerning relevant sites once a search engine had shown its results. She could enter a given web site, but found moving around within the site, such as the Australian Bureau of Statistics web site, difficult. This was providing a hurdle to her completing the last summative assessment of the unit, a research task.

One of the problems Cathy noted when she asked Jane how she was progressing with using the Internet was that she would always reply, "OK". During the October teacher meeting with Cathy that followed the student meeting with Jane, we discussed the problems Jane was having with the Internet. We agreed that a possible strategy to improve Jane's Internet use might be to ask another student who was proficient in Internet use to show her what to do. James, one of the other NLP participants, whom Jane liked and often spoke to, agreed to help her. Through this strategy, Jane completed her final task, at the same time admitting she had "hoped she could get away with not doing it".

Jane had entered the NLP out of necessity. Her goal was to gain her SACE, with her main obstacle being her conflict with a particular teacher and group of students. The Year 11 subject choice at the College was limited, and the teacher with whom she had conflict took three of the subjects. It did not seem advisable for her to attend the classroom-based lessons in these subjects due to the high level of conflict between her and the class teacher, but she was prepared to work with Cathy because she liked her, saying during the student-researcher interview, "all teachers should be like Cathy". By the end of Semester Two 1998, Jane had completed the tasks required to achieve a SSABSA grade of Satisfactory Achievement (SA) in the Economics unit. Completion of this unit enabled her to enter Year 12 studies with a total of 12 units at Satisfactory Achievement (SA) level.

### *Jane's Year 12 Experience*

Personal relationships with the teacher were very important for Jane, with her attitude to her study dramatically affected by the quality of the relationship. Jane was aware of her limitations regarding her tolerance of specific teachers, so she began her Year 12 studies in 1999, choosing to do three subjects with Cathy (Legal Studies, Economics and Accounting) with whom she had developed a trusting relationship through the NLP in 1998. My role of counsellor enabled Jane and I to spend considerable time together during 1998, and we developed a positive teacher-student relationship. She entered my Biology class and Sue's English class. Sue had been her Year 11 English teacher whom she also "got along with". These units were classroom-based with her attendance throughout 1999 being irregular due to her employment by a national modelling agency, requiring her to fly regularly to Sydney for three to four day periods. She continued to use the computer applications she had

learned in the NLP and invested in a computer enabling her to e-mail work she had completed at home to teachers, complete research assignments using the Internet search engines rather than library research, and she began to show a higher degree of organisation than most of her peers. She continued to live independently and pay her own school fees, maintaining her goal to complete SACE and gain Tertiary entrance. There were no further behavioural problems, with Jane developing alternative ways to deal with her anger by discussing her feelings with either Cathy or myself and avoiding specific students and teachers who irritated her. She completed SACE at the end of 1999, achieving a Tertiary Entrance Rank (TER) of 94.00 and gaining entry to her first University preference of a combined Commerce/Commercial Law degree at the University of Adelaide. One of her parting comments to me, early in 2000 before leaving to live in Sydney, was “I don’t think I would have stayed and finished Year 11 if I had to go into that class”. She was referring to the classroom-based Economics class with the teacher with whom she had conflict, indicating that even after school completion, the negative relationship she had developed with one teacher was still strong in her mind.

### *Brad*

#### *Background*

Brad had attended a large high school in Adelaide’s western suburbs, but left school after completing Year 10. He was able to gain some employment that he saw as preferable to staying at school. Brad was 19 years old when he enrolled at the College and had been out of school for three years. He did not bring any records from his past school for his enrolment interview in January, 1998, only stating that he had been a regular truant when under the age for compulsory schooling, and “couldn’t wait to leave school”. He described how he had been unable to secure regular full-time work since leaving school, finding only casual, cash-in-the-hand labouring with builders and landscape gardeners in his local area. This places him in Dwyer’s (1996) classification of leaving types as “an alienated leaver”, with a pattern of transition from school to work with, as McIntyre et al. (1999) describes, an “occupational focus”. Dwyer describes alienated leavers as those who resist and rebel against the school and teachers within it. He describes how they are likely to have been singled out by the school because of their anti-social behaviour and regarded as “problems”. They may feel that particular teachers have victimised them, thus they escape from

school, rather than leaving at a time when they have organised a job or further training. Early leavers in this category are usually boys, and have labouring work or casual jobs that do not lead to careers. Brad remained at home with his family until he was approximately 16 years of age, when he left home, unable to deal with the conflict within the family and began a long period of transitory accommodation with other family members and friends. As he had had over two years of independent living away from his parents, without their support, he was eligible to receive full Independent Rate Youth Allowance, as long as he remained enrolled as a full-time student.

### *Motivation for Returning to School*

At the enrolment interview, Brad described how he was fed up with irregular work, never knowing how much money he could make in a week, and having to be reliant on family and friends for accommodation. In October, when he was reflecting on his return to school, he commented to the student-researcher that paid work was too hard, and while he did not mind the landscaping work, he knew he would need to “get an education” to secure a more stable, non-labouring job. He presented as a confident young man, determined to succeed at school, stating that he was “going to go to University, get a good job, and earn lots of money”. He expressed a desire to do “all the hard subjects”, wanting to show his family that he “had a brain and could use it”. He began his Year 11 studies with Physics, Chemistry and Pure Mathematics. During his mid-semester progress interview in April, he voiced concern that he was not coping with these units, refusing to do tests and simply not attending classes, because, as he put it, “I don’t understand a thing the teacher is saying”. It was likely he would fail the semester and probably leave school unless he changed his units to those that did not require the high level of background knowledge of those he had been doing.

Because Brad was an adult, and had been out of school for over 3 years, he met the eligibility requirements for the SSABSA adult re-entry status provision. This provision allowed him to concentrate on fewer units improving his chances of experiencing academic success. When I offered him this option, he expressed relief, “I just want to find out what I can do well in, get my SACE and get into Uni”. At this stage he stated that he would like to study Psychology at University, and if Mathematics, Physics and Chemistry were not requirements, then he would be happy

to do “easier” subjects. We agreed by the end of the interview that he could use 1998 as a Foundation year and he would go into the Business Mathematics, Biology and Accounting classes for the rest of the semester, in addition to the English, Australian Studies and Legal Studies units that he had been studying all semester.

By the end of Semester One 1998, Brad had achieved a Satisfactory Achievement (SA) for the six Stage One units he was studying.

### *Selection for the NLP*

The end-of-semester student progress meeting with Brad in June gave him an opportunity to express how he was coping with his studies. He described the anger he was feeling towards one of the teachers who, in his mind, was “out to get him” and “grossly unfair”. He described how being in her class reminded him of his previous schooling experience with his problems of failure and the destructive effects of negative feelings about himself and others around him resurfacing. He questioned the whole schooling process, stating he would have trouble in any school he went to because there would always be someone, a teacher or student, whom he could not tolerate. When we discussed his subject choice for Semester Two, he said he would like to do Economics, but flatly refused to go into any of one particular teacher’s classes. He was beginning to look for ways to avoid those classes, and possibly school, saying he would be happy not do any of her classes because he was not entered in SACE, so could choose the subjects he wanted.

During the same interview at the end of Semester One, 1998, Brad was offered an opportunity to participate in the NLP through my asking him how he would react to a curriculum intervention strategy that would allow him to stay out of the teacher’s class with whom he had conflict, but still enable him to do Economics. He appeared interested, particularly when I explained to him that two other students were being approached to trial the NLP strategy, and that their comments would be collected through the semester so modifications and improvements could be made for other students taking the subject(s) in the future. He smiled and appeared pleased about being asked to be involved in a “special project” where his thoughts would be collected and valued, but he was unsure if he wanted the “hassle” of taking a subject in a delivery mode he had not experienced. I reassured him that he could not “fail”, because he did not require the unit for SACE and that his comments in regards to the NLP would be of great assistance to the College and would contribute to the STAR

research we were involved in with SSABSA. He left the interview without deciding if he would be a participant, but later that day, he came to see me expressing excitement about the NLP and agreed to participate because he had spoken with Jane, his closest friend at the school, and found she had agreed to participate.

Well if she's going to do it, I will too, as long as I don't have to go in the classroom with her [the classroom-based teacher]. If it helps give other kids in the future an option of going into the classroom, then I'll do it! (end-of-semester student interview, June, 1998)

I also asked him during this meeting if he had access to a computer where he was living. He responded that he could go to a friend's house who had one, but because of the "hassle" of trying to work there, he would rather do it all at the College using the computers in the library.

#### *Brad's NLP Experience*

By July, the time of the first teacher meeting with Cathy, it became apparent that Brad was having real problems with the NLP.

Bronte: How are the students coping with the NLP?

Cathy: Jane and Brad need a lot of help. Jane is doing the work, but Brad is tending to get frustrated and gives up easily. Jane is really teaching him.

Bronte: Do you think he will make it through the course?

Cathy: He tends to think he is doing us a favour and says he really doesn't care because he is not entered in SACE and knows it won't affect his chances of doing Year 12.

Bronte: So can he finish?

Cathy: He has the academic ability, but is just stubborn.

Bronte: Is he accepting your help?

Cathy: He is happier if Jane shows him.

(teacher meeting, July 1998)

Soon after the meeting with Cathy, I met with the NLP participants individually for a student progress meeting. Brad was not concerned about passing or failing, "... it doesn't matter if I pass or fail as I'm not entered in SACE", but he wanted to stay in the NLP as he enjoyed working with Jane. I would often do my marking in the library, giving me opportunity to observe the interactions between the students, and in particular, Brad and Jane because they were working on the NLP on



the library computers. From these observations of Brad and Jane working together, there appeared to be a kind of friendly rivalry between them, with Brad trying to keep up with Jane. When Brad became frustrated with concepts in the unit, he would blame the computer, with regular exclamations being heard from his work-station. He expressed his dislike of having to use the computer to do the work. He asked during the student progress meeting why he could not give written responses to Cathy, and why did he have to use Excel for graphs? As his frustration in not having the teacher there to help him grew, he became more reliant on Jane for assistance.

The information supplied to me by Cathy at the September teacher meeting provided little good news in terms of Brad progressing through the Economics unit. "He can't concentrate, and will only work when Jane is around" she said, indicating her growing frustration with his inability to work independently and take the initiative to begin new work on his own. With seven weeks left in the semester, Cathy began organising times to meet with Jane and Brad in the library to show them how to use the computer applications. Brad was able to understand basic Economics principles but was not submitting work electronically. By the end of October, during the teacher meeting, Cathy described Brad's passive resistance to using the computer technology.

[I'm] trying to get them to use e-mail to submit work, even though they are doing most of it at The College. Brad is still resisting...he wants to print it [work] off rather than admit he doesn't know how to use e-mail. He said to me today, "Why can't I just give it to you?" Brad seems to be getting left behind [Jane and James] and does not like it!

(teacher meeting, October, 1998)

My observations of Brad's ability to use the Internet indicated he could click on a hyperlink Internet site within the text on the screen, but could not begin a search using a search engine or Internet browser. James, a fellow student also involved in the NLP, was asked by Cathy to help Jane and Brad with their Internet use as they were not responding to her assistance. Brad accepted James' help but would still wait for Jane to show him after James and Cathy had left the room. Sometime between late October and early November, Brad became competent with Internet use, but not being able to do this until late in the semester had stopped him from progressing at a rate that he was happy with. The final student progress meeting I had with him revealed his frustration.

I'm still not convinced this [NLP] is a way to teach. I would prefer to have had the teacher there with me because I found motivation difficult. It's easier to sit in a class and listen, rather than have to read and work everything out for yourself. Why didn't you make sure we could use the computer stuff, particularly Excel and e-mail, first?

(student progress meeting, October, 1998)

Brad was quite insistent that the teacher should be there telling him what to do, but seemed unaware that his attitude towards many of the teachers prevented him from working with them in a productive way.

Brad continued to voice his disapproval of the NLP through the student-researcher interview.

Student-researcher: With the Internet programs, what's the advantages and disadvantages to studying this way rather than having to go to class?

Brad: Where's the teacher?

Student-researcher: That's the whole point

Brad: That's the problem with it... I just find it frustrating.

Student-researcher: Do you think the teachers have changed the way they have presented the subject or is it pretty much the same as before?

Brad: There's more work... There's more writing... Basically you're just teaching yourself.

Student-researcher: Do you see any benefits of being able to study like that?

Brad: Don't have to put up with... that [teacher].

Student-researcher: Do you have any areas you're having difficulties with?

Brad: The whole damn thing!

(student-researcher interview, October, 1998)

Brad had entered the program voluntarily and at student progress interviews, student meetings and in casual conversation, he frequently voiced that it did not matter to him if he passed or failed because he was not entered in SACE and that he was only continuing because he did not want to attend the classroom lessons and enjoyed working with Jane. He maintained slow progress through the NLP, but succeeded in completing the tasks of the Economics unit and at the end of Semester

Two, 1998, Cathy was able to grant him a SSABSA grade of Satisfactory Achievement (SA). Completion of this unit, and other studies he undertook in 1998 led to him completing Year 11 without requiring an application to SSABSA for adult status. He expressed a keen desire to continue into Year 12 and complete his SACE, but personal circumstances prevented his re-enrolment in Year 12. He visited the College near the end of 2000 and was keen to let me know that was working full time at a restaurant in Sydney, but that he had not returned to school.

### *James*

#### *Background*

James attended a large high school in Adelaide's southern suburbs where he had struggled through Year 10 and Semester One of Year 11 in 1998, passing four of his six units, before he transferred to the College for the beginning of Semester Two, 1998. Comments from his mother during the enrolment interview indicated that attending school was a struggle for James, with little enjoyment being gained from the experience, both academically and socially. He indicated that he would be happy to leave school if he could find a suitable alternative employment or training, but was undecided about what he wanted to do. He was, as Dwyer (1996) describes, a 'would-be leaver', in other words, staying reluctantly at school for lack of opportunity to leave. His mother recognised the position he was facing and encouraged him to seek a change in school, rather than leaving school altogether, with minimum passes at Year 10 level, and therefore little chance of employment. Because he was 16 years of age he was beyond the age for compulsory schooling, and could have left had he wished.

James' school reports, which he presented at the enrolment interview, indicated that all aspects of literacy, that is, reading, writing, listening and speaking were below that expected of a Year 11 student. It appears he had been placed into the Mathematics, Science and Technology subject areas because they involved less reading and writing, even though his reports also indicated poor performance in these areas. Comments from his previous teachers in his reports, included "he is happy when he is busy with his hands", and "he appears to enjoy working on his own", were common through the reports covering his three and half years of high schooling. His mother commented during the interview that the teachers often confused him with his older brother, and that the teachers did not seem to know who he was. He did not

suffer the common symptoms of at-risk students such as disrupted schooling or family break-up in fact, his personal life indicated that academic achievement would be probable. He was involved in swimming and competed regularly at State competition level and seemed happy in his home life.

Interviewing James was difficult. He did not like to speak, and when a response to a question was given, he would normally reply with only one or two words. His poor communication skills were discussed with his mother early in his enrolment because his shyness was preventing him from participating effectively in class. His mother commented that he had always been like that, and simply did not like talking. For this reason, it was difficult to gain an insight into James' perceptions of schooling, or establish his short and long-term goals. During the enrolment interview he commented that he did not want to do "Special Ed" or work for "dummies".

#### *Selection into the NLP*

During the enrolment interview, it was clear that James would not be able to complete the 12 units required for Stage One SACE unless some kind of curriculum intervention occurred. He stated that he did not think he had completed all of the required tasks, but he would not know his final grades until the end of Semester One reports were completed in July. When his reports became available, I held a short meeting with him in July, and on examination of these, it was revealed that he was missing one English unit and one Arts/Humanities unit from Semester One. When I questioned him about this, he stated that he had not handed in the work. At this meeting, he presented me some of the English pieces he had completed but not handed in to his teacher for assessment. The written pieces showed that his handwriting was very untidy and the content weak. He commented that there was "no point handing the work up because the teachers would either put a red line through it or tear it up because it was too messy." When I asked if he could word-process his work at his previous school he commented that only a few teachers allowed this, and only on certain tasks. He also stated that when he did this, he had received a pass grade. I asked him at this meeting if the school psychologist had assessed him at his previous school to determine if he had a learning disability or difficulty, to which he answered "no". He did not seem to want to discuss this further which resulted in me contacting his mother about his educational background. In a conversation with his mother later that day, she commented that he had always disliked reading and writing,

preferring to play computer games to reading or watching television. She did express a concern about his lack of confidence and ability to cope at school but refused my offer to have James assessed by an educational psychologist at the College's expense.

James was placed in the NLP to undertake the unit in Economics that Brad and Jane were also completing because he required an additional Arts/Humanities unit to fulfil the SACE pattern. He did this as an overload because he had to take seven units in Semester Two to be able to complete Stage One by the end of the year. James sat the English diagnostic assessment that all students new to the College sit on his first day at the College. The English teachers commented at the first staff meeting of Semester Two that after examination of his work they could conclude that James had a problem with spelling and grammar, to the point where his poor spelling distracted from the intent of his writing making his work difficult to read. His English teacher, Sue, went on to say that when he was able to use Microsoft Word with the spell and grammar check facility to complete his work, he could produce work of a low, but acceptable standard. These findings led to provisions being put in place for him to word-process his work, give oral presentations to a small group of students, and have time extensions when required for written work. During a general staff meeting in August, his teachers expressed frustration at not having the results from a psychological assessment to guide them in implementing strategies that may have helped James in his written work.

#### *James' NLP Experience*

James was fortunate that his father's business involved computer supply and installation, which enabled him to have access to computers from a young age. He had his own computer in his bedroom with access to the Internet. He preferred interaction with ICT rather than using traditional forms of communication such as hand writing or speaking. When he communicated with his friends, he involved e-mail and chat facilities, rather than verbal face-to-face, or telephone. During the interview when he was offered the opportunity to complete a unit over the Internet, he appeared keen, stating "it would be great to do it all over the Internet".

Cathy reported at the July teacher meeting that James had highly developed ICT skills, and was quite comfortable using the Internet, e-mail and Excel, preferring to use the computer applications for all the work. He was able to use the graphing facility in Excel and other programs without assistance, even helping the other two NLP students, Brad and Jane. His interaction with Cathy was limited because he was

able to complete the work at home and e-mail it to her, only requiring assistance from her when he had a conceptual problem with Economics.

During James' last student progress meeting with me in October he commented that he enjoyed being able to work at home and "not have the hassle of putting up with teachers and other students." At this meeting he was asked if he would agree to be interviewed in regards to his perceptions of the NLP. Through James' involvement with NLP he had been working with Brad and Jane and, by the end of the semester, had developed positive relationships with his peers and agreed to be interviewed by the student-researcher in preference to being interviewed by an adult. Similar comments to those above were gained through the student-researcher interview, which was held immediately after the student progress meeting.

Student-researcher: What are your impressions of the Internet stuff, like have you done most of the work and that?

James: Yeah, I've done most of it.

Student-researcher: Do you think it's good?

James: Yeah, in some ways...

Student-researcher: Has it helped or made it easier, rather than coming to class...

James: Yeah, it's easier than having the teacher moving around you, as it's easy to sit at home...it's cool.

Student-researcher: Is it easy to use, like to get into the Net and that?

James: Yeah, I can do all that stuff well and get it right.

(Student-researcher interview, October 1998)

James had been provided with a learning mode that enabled him to undertake learning and complete assessment tasks under the terms and conditions he felt comfortable with, not those dictated to him in the classroom by the teacher. He struggled through his other units, but became more willing to hand in work for assessment because he was allowed to word-process extended writing tasks. At the end of the semester, during a casual conversation with me in the library, James commented that he would like to do Year 12 if he could word-process his work. I explained to him that it would be an acceptable option for his internal assessments, but at the final examinations, he would have to hand write his answers unless we could lodge a Special Provisions in Assessment application. Under this SSABSA policy, he would be able to use a word processor and spell check in the final

examinations if a psychological report indicated that he was suffering from a learning disability.

James did not give permission during his enrolment to have a psychological assessment to determine the nature of his learning problems. This point was discussed several times with his mother during Semester Two. She stated that the reason he did not want to be assessed was that he did not want a reason to be given to the College for him to be put in “idiot classes”. This issue came up with me during his July student progress interview and with the student-researcher during the October interview and it was not something James wanted to pursue. James preferred to be able to use the facilities that ICT can provide, and found this sufficient for his needs. James did successfully complete Stage 1 at the end of 1998, but did not pass all of his Stage Two units so was not able to gain the SACE at the end of 1999. He did decide to undertake one subject in 2000 and that led to him gaining SACE and a Tertiary Entrance Score. He is now employed full time in his father’s computing business.

### Phase Two Case studies

In the time between November 1998 and July 1999, the NLP subject range was expanded due to the positive results from the Phase One participants. Subject teachers volunteered to write a unit for their subject area with the aim of trialling these units with the Phase Two participants.

During Phase Two, data collection from the participating students, Alison, Craig, John and Sally, and the teachers, Cathy and Sue, occurred less regularly than in Phase One. Table 5.2 lists the data collected about the students used to construct the case studies. A student-researcher was not used for student interviews and the main informants were the teachers and students with limited input from parents.

The students could choose how they approached their studies, whether at school during “free” or totally away from school. In reality, John used a mix of both, completing some of their work at school and some at home, with John, Sally and Alison preferring an external mode.

#### *Alison*

##### *Background*

Alison’s enrolment interview was in January of 1998. She had been attending a large high school in Adelaide’s northeastern suburbs when, during Semester Two of

Year 10 in 1997, she became ill with glandular fever. She did not return to school that year, so, by January she had not worked or studied for nearly six months. During her enrolment interview she expressed a keen desire to return to school, but was quite concerned that she had not finished Year 10. She felt her literacy level was not quite up to Year 11 standard. Alison attended regularly for four weeks, but in late February began to miss lessons, because she was feeling unwell. She withdrew at this stage on her doctor's advice as she was diagnosed to be suffering from Chronic Fatigue Syndrome as a result of her earlier illness.

In July of 1999, 18 months after her initial enrolment, she contacted the College again, wishing to re-enrol. She had spent many months at home resting and had found part-time work during the earlier part of 1999. She felt she was ready to return to school part-time. At the enrolment interview in July, she was counselled by me to undertake a "Foundation" semester of study. She had turned 18 while she was absent from school, and because she had not completed any SACE units she met the SSABSA Adult status criteria. This meant that she could choose those units that she felt she needed more background in before she embarked on Year 12 studies, such as English. She indicated that she did not want to give up her job in a bakery as she enjoyed the work and was looking at making this area of work her career. We discussed her learning needs and I suggested that because she did not consider school to be an important part of her social life that she may like to study externally using the NLP. I asked her if she had access to a computer with Internet access at home, and she replied that she did, commenting that she enjoyed using the chat facility to keep in contact with her friends. She added that to keep her costs down, she had to be careful and not go over the monthly hour allowance she had with her Internet provider.

#### *Entry into the NLP*

When offered the option of NLP at the enrolment interview, Alison was keen to study this way. She felt she had the necessary time management skills and motivation to do her study after she finished her work. She explained during the interview that she worked from 4.00 am until midday, would come home and have a sleep, then be able to study a few hours each afternoon and on weekends. We discussed the problems she may have in "burning the candle at both ends" in terms of her health, but she was still keen.



Table 5.2 - Data Collection for Students in Phase Two, 1999

| Date      | Alison  | John   | Sally  | Craig  |
|-----------|---|--|--|--|
| January   | Enrolment interview for entry into Year 11  |  |  |  |
| February  | Progress interview due to illness – discontinued  |  |  |  |
| 1999      |   |  |  |  |
| January   |   | Enrolment interview for entry into Year 11                 |  |  |
| April     |   | Mid Semester progress interview                            |  |  |
| June      |   |  | Enrolment interview for entry into Semester Two of Year 11 | Enrolment interview for entry into Semester Two of Year 11 – invited to participate in the NLP |
| July      | Re-enrolment interview into Semester Two of Year 11 – invited to participate in the NLP | Disciplinary interview - invited to participate in the NLP |  | Progress interview   |
| August    | Phone/email contact   | Progress interview   |  |  |
| September | Phone/email contact   |  | Progress interview - invited to participate in NLP         |  |
| October   | Phone/email contact   | Progress meeting   | Phone/email contact  | Progress meeting   |
| November  | End of Semester reports and SSABSA results collection                                   | End of semester reports and SABSA results collection       | End of semester reports and SABSA results collection       | End of semester reports and SABSA results collection   |

Alison initially selected a Business Mathematics and Personal Information Processing unit because she wanted to learn to touch type and to use Microsoft Word and Excel. She had developed basic ICT skills in her workplace and expressed her confidence that she would be able to learn the ICT skills required to complete the Business Mathematics and Personal Information Processing units. The Business Mathematics unit had been written with support material for use of Excel because our experience with the Phase One students indicated that many students had problems with applying the Excel program in the contexts required. I met with Cathy, the Business Mathematics and Personal Information Processing teacher, to discuss Alison's enrolment in these units. Cathy had Alison in her Business Mathematics class the year before when she first began studying at the College, and was pleased with her being in the NLP. Alison began both units in July and appeared to be working through the content at an acceptable pace and level to finish by the end of November.

Alison was insistent that she undertake a unit of English in addition to the other two units. I warned her at the enrolment interview that three units may be too many for her to deal with because of her long hours of paid work, but she would not shift her position on this. The results of her initial diagnostic English Literacy assessment carried out in February of 1998 indicated that she was a student of below average ability in language skills, particularly in English comprehension. This was of concern to the project team when her enrolment into the NLP was discussed at a general staff meeting in July 1999. The NLP was designed so students could work on their own, meaning Alison would not be able to ask clarifying questions when she did not understand a task or concept, rather, she would have to e-mail the teacher for feedback. The prediction of the teachers was that she would get frustrated and get behind in her work, then give up. During the teacher meeting to enrol Alison into the NLP, the English teacher, Sue, expressed concern about her entry into the English unit, because she, like Cathy, had taught her in the classroom for four weeks in 1998. Sue commented that during Alison's brief attempt at Stage One English, she had trouble understanding the content and assessment requirements of the unit, and that even with repeated explanations of the work, little progress was observed.

### *Alison's NLP Experience*

Alison's experience with the English unit was not a positive one. I was project leader, which meant I acted as the liaison between Sue, Alison and her mother on a number of occasions. Late in July, a special meeting was called between Sue, Alison, her mother and myself. As we had expected, Alison was having trouble with the English unit, and was not able to understand the language that Sue used in explaining the assessment task. Sue explained to Alison and her mother that, if she were in the classroom, she would have the teacher available to describe content and tasks, and would have the opportunity to ask questions herself, or listen to other students' questions. But, because she was studying with the NLP, she would only receive one way of explaining the question and task and, if she was not sure of something, she would have to ask questions via e-mail and wait for a response. It was agreed at the meeting, however, that the language Sue had used required some clarification. As a result, Sue rewrote parts of the English program with Alison's assistance.

After this intervention, Alison was able to work steadily on the three units. She was very keen to maintain face-to-face contact with her teachers, requiring their verbal explanation for feedback on her work. She found that it was easier for her to make an appointment to see specific teachers during her afternoons off, rather than relying solely on the e-mail facility. I was meeting regularly with her teachers, so I suggested she use me as her contact point and this also gave me an opportunity to discuss her progress and concerns with her. Our contact generally took the form of an e-mail conversation, because this was easier than phone contact due to her working hours. To her advantage, she had the ability to use the Internet and e-mail so she could carry out research, submit drafts and correspond with her teachers as required. But, even with these skills, she still preferred the face-to-face contact.

For Alison, the Personal Information Processing unit was quite easy, because she was already computer literate. Cathy commented at the October teacher meeting that Alison was on track to finishing the Personal Information Processing unit, but the Business Mathematics needed more work. The Business Mathematics appeared to be more challenging for Alison, because Cathy felt her grasp of basic mathematical concepts was quite weak and, because she had to solve equations on her own, without the benefit of regular classroom support, Cathy was concerned that she may "give it away". However, Alison persisted and kept working on the unit until she finished in late November.

One afternoon early in August, Alison arrived at the College quite distressed, stating “I need to speak with Sue about the low mark she gave me for my last assignment”. Sue had left for the day, so I explained to Alison that she was not available and asked whether she would like to come back during the lunch break the next day and discuss her concerns. Alison said she would ring and make an appointment. She did this, arranging a meeting with her mother, Sue and I. At this meeting, Alison would not accept that the work in the English unit was challenging, and expected much higher grades than she was given. Her poor grammar, spelling and an immature writing style compounded the problems she was already encountering with the online delivery, resulting in frustration for both her and Sue. Sue tried to explain that she had a reasonable level of functional English literacy, enabling her to manage day-to-day tasks in the workplace and at home, but her lack of a solid background in academic English was impeding her progress in the more complex analytical tasks. Neither Alison nor her mother were particularly impressed with these comments, but did agree that her exposure to academic units was limited. The discussions at the teacher progress meeting in October with Sue centred on concern from both Sue and I that Alison may not fulfil the requirements of the unit because she had not completed two major summative assessment items. Alison wanted Sue to explain the material to her in detail. Sue suggested that perhaps she may be better off attending the class, but Alison did not agree, indicating that she was quite capable of doing it by herself, but, because she could not understand Sue’s task descriptions, still needed a few things explained to her. By the time of the November results collection, Alison had completed her work, but she did need to spend some time with Sue, one-to-one and face-to-face, going through the tasks she did not understand.

Alison successfully completed the three SACE units she had enrolled in by the time of the November results collection and received a Satisfactory Achievement for them. She wanted to begin Year 12 studies in 2000, but was working two jobs and knew from her experience with the NLP in 1999 that she would need more time available for study if she wanted to be successful, so she decided not to re-enrol at the College in 2000.

## *Craig*

### *Background*

Craig was attending a large non-government school in Adelaide's western suburbs, where he had been a student since Year 8, when he began experiencing problems with other boys at the school. His mother initially contacted the College in April of 1999 asking if it was possible for him to transfer his enrolment to the College at the end of the Semester, stating that she was concerned about her son's safety at his current school. In May, accompanied by his mother and father, Craig attended his enrolment interview. Craig was 16 years old at the time of his transfer to the College and had not had any time away from school. His reports from Term One were good, but indicated some problems with other boys. His parents felt that Craig was associating with a "bad" group of boys, and was starting to get into trouble with teachers, something that had not occurred before. I requested permission to contact the counsellor at his previous school, explaining that it was important for me to have both sides of the story. I discovered that Craig had been the victim of bullying during that year and his way of dealing with this was to behave like the group bullying him. His parents felt that part of the problem was that he was a steady worker who was perceived as a "square" by the other students. They felt the environment of his previous school did not provide space for quiet, academic type students, and felt the smaller classes and academic focus of the College would suit Craig. When questioned about this, Craig echoed his parent's remarks, making it difficult to determine if Craig really did want to follow an academic pathway.

### *Entry into the NLP*

Craig's entry into the NLP was again, a matter of necessity. His previous school only offered Australian Studies, one of the compulsory SACE units, in the second semester of Year 11, which meant that Craig had not completed Australian Studies when he transferred to the College. Our students had completed Australian Studies in Semester One, resulting in Craig being offered the Australian Studies through the NLP. He did this as an overload because he wanted to take two units of Mathematics, resulting in seven units to be undertaken in Semester Two.

Craig was offered the option of the NLP during his enrolment interview, with both his parents keen that he accepted the opportunity to complete the Australian Studies unit in Year 11, rather than take it as an overload in Year 12. Because I was

the teacher of the Australian Studies unit, I could show him the unit outline during this interview, and gauge his ICT skills by asking him about his previous experience. He stated that he was completing a unit of Computing in Semester One, and part of his studies had involved web site design. He commented that he felt comfortable with ICT, preferring use of a word-processing application to handwriting for his extended writing tasks. My previous experience with students stating that they could perform tasks that in reality they could not was in my mind, so I asked him to send me an e-mail from his home that evening, allowing me to check he could use the e-mail facility.

### *Craig's NLP Experience*

Craig did demonstrate well-developed ICT skills, and was academically able. I had little contact with him in connection with his Australian Studies unit during the semester, other than short reminder e-mails to him, and him sending me outlines of the assessment tasks. During our October student progress meeting, little was discussed except for a few questions he had relating to recording data for the diet analysis task. He did not present work for assessment until after this meeting, because he had spent the first part of the semester concentrating on his Pure Mathematics and Physics. It was apparent from comments made by his Mathematics and Physics teachers during staff meetings that he had a few gaps in his knowledge and would not be able to cope with the extra work of the Australian Studies unit until he was confident with his Mathematics and Physics.

While his work in the Australian Studies unit was of an acceptable standard, he did not spend a large amount of time or effort completing the assessment tasks. He was content to e-mail finished pieces, sending few drafts, and not asking many questions during the semester. Craig's literacy and ICT skills were good, resulting in him having few problems with the work requirements. He was able to complete the research components of the unit that required use of the Internet search facility, and complete tables and graphs using Excel.

By the end of the semester, he had completed the unit requirements and received a Satisfactory Achievement for his SACE result. He also completed his other Year 11 units at a Satisfactory Achievement level and was able to enter Year 12 in 2000 without having to do an overload.

## *John*

### *Background*

John attended an enrolment interview, accompanied by his mother, in January of 1999. He had been a Year 10 student at a large non-government school in Adelaide's western suburbs where he had completed Year 10. He indicated at the interview that he was not happy at his previous school, commenting on being "picked on" and "singled out" by teachers. He felt victimised and discussed examples of where he felt he had been blamed for incidents that he claimed he was not involved in. He presented as a "would-be leaver" in Dwyer's (1996) classification. He admitted to a desire to leave school if he could get a job or an apprenticeship. His mother voiced her opinion that changing schools appeared the only option open to John, because he had been told he would not be welcome back at his previous school. She commented that John had refused to go to school for the last two weeks of the 1998 school year and would not go back there in 1999. Examination of John's Year 10 reports indicated that he had shown little interest in school work, and appeared to only enjoy and succeed in the practical technical units such as electronics and metal work. I explained to both John and his mother that the College only offered academic subjects and that John's needs and interests could not be fully served by our curriculum offerings. This did not seem to deter them, because it was the learning environment that attracted them to the College, that is, small classes, not having to wear a uniform and an independent learning environment.

### *John's Progress in Semester One*

John appeared to be coping quite well with the subjects he eventually chose when his progress was discussed during a general staff meeting in late February. He changed from Pure Mathematics to Business Mathematics after the third week of Term One, because his mathematics background was not sufficient for him to progress through the unit. His Mathematics teacher commented at this meeting that his poor mathematical background and this inability to manage the Pure Mathematics work appeared to make him angry. He blamed his previous school where he had been streamed in Year 10 into Business Mathematics, preventing him from enrolling in Pure Mathematics in Year 11 in his previous school. At the enrolment interview I told him he would be allowed to try Pure Mathematics, but warned him that even with

extra support from the teacher, it may too difficult for him without the background of a general Year 10 Mathematics unit.

In April, during the mid-semester progress interview with John, it became apparent that he was not progressing well. He admitted he could not manage the Pure Mathematics and that because he needed to pass this to get into his preferred course at TAFE, he felt there was little point him staying at school. From reading the English teacher's comments on his mid-semester report, it was apparent that John was also beginning to fall behind in English. When I asked John about this, he became very defensive and stated that "the teacher is out to get me...she hates me". I questioned the teacher about his comment during a later teacher meeting, and she remarked that she felt he did not want to be in her class, and always asked why he could not be in the other class where his friends were.

As Semester One progressed, John's behaviour in the English class became worse, with his other teachers remarking on his decline in performance and attitude in their classes. Nevertheless, he was able to finish Semester One, receiving a Satisfactory Achievement for his six SACE subjects.

### *Entry into the NLP*

Early in Semester Two, John was involved in a disciplinary interview involving his mother and I because he had verbally abused and threatened his English teacher. I felt the situation was sufficiently serious to place him on class suspension, preventing him from attending the English class but allowing him to attend his other subject classes. He was placed on a behaviour contract stating that he could not approach the teacher he had harassed, and that a further instance of poor behaviour would result in his expulsion from the College.

During the interview in July, John was invited to join the NLP because it would enable him to continue studying English, a requirement of SACE. His initial response was negative, with him asking why he could not go into the other English class. I explained to him that the other English class was an analytical English literature class, where the students were being prepared for Year 12 English Studies. His literacy skills were not adequate for him to be in that class. He was angry that we did not think he was "bright enough" to cope in that class. Once I showed him the NLP English unit he was happier, because it involved studying a play and a novel, with a film media option and was similar to the English literature class. The NLP



teacher, Sue, was also the teacher of the English literature class, and this made John feel he was attempting an academic English unit. The NLP English unit contained a mixture of both communication and literature analysis, thus catering for students of mixed ability.

When John was being difficult during the July student progress interview, I informed him that his other option, should he wish to continue his negative behaviour, was not to do any English and, as a result, not gain the SACE because he would not have the two compulsory English subjects. He did not accept that his behaviour was the reason for him being denied access to the classroom-based English program and communication with him became difficult. Shortly after this interview, I contacted his mother because I was concerned that John's lack of progress was due to his negative attitude towards school. She explained to me that her husband (John's stepfather) and John's relationship had deteriorated to such a poor level that she could no longer have John living with them. She stated that she had no choice but to send John to stay with his father who lived in a small flat on the other side of the city, while she and her husband tried to resolve the situation. Unfortunately, the move to his father's flat resulted in John losing access to a computer and the Internet.

### *John's NLP Experience*

After discussions with Sue, the NLP English teacher in early August, John enrolled in the NLP. By this stage, John was a regular topic of conversation at staff meetings with the discussion reflecting that John was a troubled young man. I explained to the staff at a general staff meeting in August that his home life was difficult and that he was now staying with his father while his mother and stepfather decided whether they would have him back into their home. Sue was not happy with him coming into the program, voicing her disapproval by saying, "he does not seem to want to be at school, let alone study English". She agreed to his NLP enrolment on the condition that he did not enter her classroom because she did not want the students in her class distracted by his negative behaviour. She was prepared to meet with him during lunchtime to go through work if required, but preferred him to submit work to her via e-mail. While Sue had not taught John during his enrolment at the College, she did show signs of apprehension of having to teach him, even though it would not necessarily involve face-to-face contact. She did, however, demonstrate support for John by accepting him into the NLP English unit, but was concerned about the impact

on the other students, particularly if they saw John in the library or wandering around the College, rather than being in class.

Only a few weeks into the English NLP during the student progress meeting in August, John asked me if he could go into Sue's class. He expressed his dislike of learning on his own. I explained to him that his disruptive behaviour in class had led to his class suspension, and that it would not be possible for him to return to either English class that year. His reaction to this was to sit on the step outside Sue's English class, where he would do his work on his lap and where the other students could not see him, but he could hear them.

Between the August and October teacher meeting, John underwent several counselling sessions with me to discuss how he could better manage his anger. He expressed feelings of hopelessness due to his perceived rejection by his mother and stepfather. He found it difficult to understand that others found his behaviour aggressive and confrontational, and that this was precipitating conflict at home and at school. His mother also had regular phone contact with me during this time, because while he was staying with his father he had refused to contact her, or return her calls. Two male teachers at the College with whom John had a positive relationship, and whose lessons he always attended, spent time with him discussing his anger and ways of managing it.

During the October teacher meeting, Sue commented on how well John was progressing through the unit of work. She said that he was slow getting started, but was now producing work regularly and meeting with her when he needed help. He persisted in his request to go back into the classroom, and while Sue was initially distressed with him sitting on the step outside her class, she found that tolerating that behaviour stopped him constantly asking to come into the classroom. He was happy completing his work at the College using ICT and admitted to Sue that he preferred the electronic medium to hand writing, because his writing was very messy, and his spelling poor. He was also beginning to spend more time in the library studying, rather than sitting outside the classroom. Sue felt that John was starting to appreciate the opportunity he had been given and was generally more accepting of his situation, seeing access to the NLP as a better option for him rather than risking expulsion due to inappropriate behaviour. During discussions at the October general staff meeting, it also became apparent that John was completing more of his work in other subjects

and was using ICT more often. His general attitude and work quality improved as the Semester progressed.

By the November results collection period, John had completed all of his unit requirements and successfully completed Stage One. In 2000 he returned to the College to begin Year 12 but, after six weeks, unexpected family trauma resulted in him becoming homeless and discontinuing his studies. When he came into the College at the end of November to meet his friends who had just finished their Year 12 exams, he told me that he had a part-time labouring job and that school was not for him.

### *Sally*

#### *Background*

Sally had attended a large high school in Adelaide's southwestern suburbs before transferring to the College at the end of Semester One of Year 11. She was 16 years old, her schooling had not been disrupted and she did not appear to have any problems that would identify her as being at risk of not completing school. Her mother attended the enrolment interview with her and appeared to be supportive of her daughter in her transfer to the College. Sally expressed a desire to be in a smaller school with smaller classes and an academic focus because her aim was to enter university and study Psychology. Little information about Sally other than her short and long term goals and general enrolment details were gathered at the enrolment interview. She appeared to be in a stable family situation with no symptoms of her being or becoming at risk of leaving school early.

During late August, Sally's attendance became irregular, with her being either late to lessons or missing them altogether. During a staff meeting in August, all her teachers were concerned about her attendance and progress. This sudden change in behaviour suggested that there had been a change in Sally's life. My concern led me to contact her mother to make her aware that Sally was not attending College regularly and to determine if there were any personal problems we should be aware of, and may be able to help her with. After more than a week, her mother eventually returned my calls and explained that she and Sally's father had recently separated and that he was living in a flat with Sally's younger brother, who at this time was 10 years old. Sally had chosen to stay with her mother, but Sally often visited her father and younger brother.

After the conversation with her mother, I organised a counselling session with Sally when she revealed what had happened to her family. She stated that she felt “like I am being pulled in all directions, and don’t know where to go”. She indicated that she wanted to stay at College and that she would try to attend all her lessons, but because her mother now lived in another part of Adelaide, it was difficult for her to get to College.

#### *Entry into the NLP*

By the mid-semester progress interview, Sally’s reports showed that her grades and attendance had deteriorated to a point where it was unlikely she would pass the Semester. She revealed during this interview that she was spending most of her days with her father, who was now unemployed, at his flat. She was picking her younger brother up from school, and cooking their meals before returning to her mother’s house to sleep. Her mother now had her boyfriend living with her and Sally stated that she felt uncomfortable being in the house. She did state that her mother had kept the family’s computer and had paid for the Internet to be connected. Her short-term goals were discussed and she indicated that she still wished to finish school, but felt more and more pressure to leave school and get a job so she could support herself.

Fortunately for Sally, her literacy and numeracy skills were of a high standard, and she had completed three years of computing at her previous school, including a semester of Stage One Computing. During the September staff meeting held before the mid-semester progress meeting with Sally, her teachers commented that she would not have trouble completing work on her own. They felt the work she had completed during her first 10 weeks at the College had been of a high standard, indicating she was a student of high intellectual ability. They believed that she would fail if she could not access a program that allowed her to work away from College, because her attendance had dropped to a point where it was affecting her grades.

With both Sally and her teachers indicating that she needed to access a flexible learning mode to allow her to complete her Stage One studies, she was invited during the mid-semester progress meeting to join the NLP. She had the benefit of having seen the work John and Craig were doing in the library, and stated when offered entry into the NLP that “they seem to be doing OK, so I’m sure I will too”. She regularly used the Internet, chat and e-mail, so she was not concerned about using the online

curriculum delivery mode. Because she had already completed approximately half of her unit, she needed the NLP as a way to “finish off” her subjects.

Individual meetings were held with each of the NLP teachers in September to clarify the specific tasks she would need to complete to gain a SA in each unit. Cathy was willing to take her into the Business Maths unit, and commented that the transition into the NLP would be quite easy because it was the same as her classroom-based Semester Two unit that she had been studying. Sue had been her classroom English teacher, but the NLP English was slightly different to the classroom-based English program. Sue and Sally negotiated a program that would enable her to complete her SACE requirements while extending her capabilities. Sally had also been in Peter’s Biology class, and his classroom-based unit was the same as the NLP, so she continued from where she had progressed to in the first part of the semester. I was the Australian Studies teacher, and the NLP was different to the classroom-based program, so I negotiated with Sally the tasks she needed to complete to satisfy SACE requirements.

### *Sally’s NLP Experience*

Sally joined the program out of necessity, and was glad that she had an option to continue her schooling without having to attend College. The teachers had observed her using ICT during the first half of the semester, so they were not concerned about her being able to submit work and communicate via e-mail. During her October student progress meeting she commented that she found the work she was doing in the four subjects was manageable, but she was concerned that she would not have enough subjects to go into Year 12 in 2000. She was finding irregular access to a computer frustrating because she preferred to stay with her father, and he did not have a computer. She also voiced her disappointment in not being able to continue with History and Art, two subjects she enjoyed. We discussed at this meeting the possibility of her attending some lessons so she could finish the work requirements in those subjects, but she did not think she could manage regular attendance, even on a part-time basis.

Cathy commented at the October NLP team meeting that she felt the reason Sally had been successful in Business Mathematics was because she was using the NLP as a catch up in the later part of the semester. She had already developed a “feel” for the subject so did not need the more intense learning environment the

traditional classroom offers with immediate feedback. Sue expressed a similar view in regard to Sally's English work, stating that without the high level of literacy Sally had, she probably would not be coping as well as she was. Peter expressed similar views to the other teachers and also commented that it was a shame that a student of such obvious academic ability could not reach her full potential.

By November results collection, Sally had completed her work requirements for Business Mathematics, English, Biology and Australian Studies. She received a satisfactory achievement SACE grade for each unit, resulting in her completing 10 SACE subjects by the end of 1999. She required two more subjects for her to be able to enter Year 12 without having to complete an overload.

In 2000, Sally enrolled for Year 12 stating that she had left home and was now independent and felt more in control of her life. She was able to maintain full attendance for approximately 2 weeks, when the problems that often face young homeless people began, such as meeting rent and other payments. Sally withdrew her enrolment with the College at this time and entered the workforce full time.

### Synthesis

The case studies give an overview of students' experiences during their involvement with the NLP enrolment at the College. In this section, the threads are drawn together and illustrated with data collected from the three Phase One students, Jane, Brad and James, and the four Phase Two students, Alison, Craig, John and Sally.

In order to address the research question, a set of attributes that appear to be related to student achievement in the NLP have been extracted from the data and grouped as personal, skill and attitudinal factors. Personal factors included for each of the seven students include the reason for entering the NLP and continuity of schooling and whether they have access to a computer with Internet facilities at home. The skill factors selected relate to each student's proficiency with ICT before they entered the program and their level of English literacy. Two attitudinal factors of the student's willingness to persist through each unit of study and the level of self-directedness they demonstrated have been identified from the data as being key indicators of student success and these relate to the student's approach to learning. After analysis of each student's case, I have assigned a level of functioning of each student within each factor, to produce the "student factor rating grid" in Figure 5.1. Together, these

ratings allow for a notional ranking of performance for the participants in both phases of the NLP.

### *Personal Factors*

#### *Reasons for Entry into the NLP*

Students who entered the NLP required access to Stage One units through a medium that did not require classroom attendance. All of the students were at risk of not completing the SACE in the traditional two-year framework. The student cases indicated three kinds of situations for the NLP to be offered to students. One of the situations concerned the necessity to complete a subject for curriculum reasons. Access to the NLP enabled students to complete the SACE requirements when there was a timetable clash, allowing them to enrol in a subject offered at the same time as another subject. James, from Phase One, and Craig, from Phase Two, both entered the College at the beginning of Semester Two and were enrolled in the Stage One Mathematics Two unit. Both required Economics and Australian Studies units to fulfil the SACE pattern requirements but they were programmed at the same time. They also planned to enrol in Stage Two Mathematics One and Two as part of their Year 12 studies in the following year for which a Mathematics Two unit at Stage One was a prerequisite. Thus, in 1998, James enrolled in the NLP Economics unit, and in 1999, Craig enrolled in the NLP Australian Studies unit enabling both to satisfy the required SACE curriculum pattern.

The second situation for students to be invited into the NLP was to enable those who demonstrated negative behaviour in the classroom situation to continue participation in the learning process out of the classroom environment. Brad, Jane and John had each experienced difficulties with a particular teacher in the classroom situation. As a result, a passive form of intervention was used by removing them from the classroom and allowing them to undertake the same unit using the NLP. Brad and Jane enrolled in an Economics unit, whereas John was able to enrol in an English unit.

The third situation where students were invited into the NLP was because they were unable to attend school. Alison, the first Phase Two participant, did not want to give up her job at a bakery and was appreciative of the chance to be able to undertake studies online. She was able to enrol in English, Business Mathematics and Personal Information Processing subjects. Sally, who had been a successful classroom student, was unable to attend College for most of Semester Two in 1999 because of family

| Student and Phase of Study | NLP subject                             | Personal factors                           |                            |                         | Skill factors      |                           | Attitudes to learning  |                            | Results Notional ranking |
|----------------------------|---|--|----------------------------|-------------------------|--------------------|---------------------------|------------------------|----------------------------|--------------------------|
|                            |   | Reason for entry into NLP                  | Access to computer at Home | Continuity of schooling | Level of ICT skill | Level of English literacy | Willingness to persist | Level of self directedness |                          |
| Craig Phase Two            | Australian Studies                      | Time table clash                           | Yes                        | Yes                     | High               | High                      | High                   | High                       | 1                        |
| Sally Phase Two            | English<br>Biology<br>Business<br>Maths | Unable to attend school – family situation | Yes Intermittent           | Yes                     | High               | High                      | High                   | High                       | 2                        |
| James Phase One            | Economics                               | Time table clash                           | Yes                        | Yes                     | High               | Low                       | High                   | High                       | 3                        |
| Jane Phase One             | Economics                               | Behaviour issues                           | No                         | Re-entry (18 months)    | Low                | High                      | High                   | Med                        | 4                        |
| Alison Phase Two           | English<br>Business<br>Maths<br>PIP     | Unable to attend school work               | Yes                        | Re-entry (2 years)      | Med                | Low                       | High                   | Low                        | 5                        |
| Brad Phase One             | Economics                               | Behaviour issues                           | No                         | Re-entry (3 years)      | Low                | High                      | Med                    | Low                        | 6                        |
| John Phase Two             | English                                 | Behaviour issues                           | No                         | Yes                     | Med                | Low                       | Med                    | Low                        | 7                        |

Figure 5.1. Student attribute grid



problems. Rather than “drop-out”, Sally was able to continue her studies by enrolling in the NLP Biology, English and Business Mathematics subjects. She was not able to complete all of the units she had enrolled in on entry into the College because History and Art, her other units of study, were not available through the NLP.

#### *Access to Computers and the Internet*

Access to a computer with Internet facilities is essential for a student to participate in the online learning environment. The level of access affects the student’s ability to enjoy the many advantages online learning can provide, such as flexibility in study time and place. Students without access at home are limited in where and when they can engage in their studies. Some students did not want to do work at home, seeing the College as the place to do all of their work, while others who were not able to attend regularly required access to facilities at a time that suited them. Easy computer access appears an absolute prerequisite for participation in any type of online learning.

Jane and Brad did not have a computer or Internet access at home. John and Sally also lacked access to a computer and the Internet due to their transient accommodation during the second half of their semester involvement with the NLP. Lack of access to computers for these four students meant that they were required to spend time at College completing assessment tasks. Jane and Brad opted to complete all of their work on the College computers in the library during the school day, whereas Sally was happy to save her work to disc and work on it where ever and when ever she could, rarely visiting the College. However, John did not have Sally’s time management skills or motivation to save his work to disc and work on it at his mother’s house, and thus completed most of his work at College. Jane, Brad and John are listed in Figure 5.1 as not having access to a computer on the student factor grid, whereas Sally was able to use one at her mother’s house.

Alison had access to a computer at home, but her Internet access was spasmodic because she was buying hours of Internet access only when she could afford to. This caused some problems for her, particularly when a task required her to use the Internet for a research assignment. She has been listed as having access to a computer at home, even though her Internet access was intermittent.

James and Craig both had their own computers and Internet access allowing them to work from home, using e-mail when they needed to ask questions and submit completed tasks.

### *Continuity of schooling*

Obviously gaps in schooling or irregular attendance affect continuity in learning. Brad, Jane, Alison and, to a limited extent John, had all had time away from school. James, Craig and Sally transferred their Year 11 enrolment from their previous schools to the College at the end of Semester One and had no time away from school.

The cases of Jane, Brad and Alison show that they had left school early for different reasons, but had chosen to re-enter school to improve their life opportunities. All had been participants in the work force and knew their future life outcomes would be improved if they completed the SACE. The three had been out of school for at least 12 months, with Jane and Alison's highest level of school completion being Year 9, while Brad had completed Year 10. None of these students had been involved in formal education or training in their time away from school.

John's case was difficult to assess, because although he attended school throughout all but the last two weeks of Year 10, information from his mother at his enrolment interview indicated that he spent considerable time out of the classroom for discipline reasons. It would appear that his academic performance and behaviour were barriers to his learning while in his previous school, and that he maintained the same negative behavioural pattern during his time at the College.

### *Skill Factors*

#### *Level of ICT skill*

The ability of the students to use the tools associated with ICT, and hence access online learning, appeared to be crucial for student happiness and success in the NLP. The students who had completed computing courses as part of their previous education and were competent using ICT were more confident with the online mode of learning, and thus, able to be more independent in their learning.

For James, the online delivery mode gave him the opportunity to use a communication medium with which he was comfortable. His competence and confidence with ICT was visible on two levels. The first was that involvement in the NLP enabled James to work at home and the second was that it assisted him to present his work better because when James could use a word processor package with spelling and grammar checks, reducing his errors.

James, Craig and Sally had completed three years of computing during junior high school and a unit of Stage One Computing before enrolling at the College. They were well versed in the use of CMC, using e-mail and chat facilities nearly everyday. For the purposes of the student factor grid, they have all been assigned a high level of ICT competence.

While John's previous school experiences were similar to James, in that he had been placed into the Mathematics, Science and Technology subject areas, John was not as proficient as James in using the software packages. One of John's barriers to experiencing success in school was his poor level of spelling and grammar, and he also enjoyed using the word processor because the appearance of his work could be enhanced. John did not need support to learn to use any of the software required to complete tasks in the English NLP unit, and was able to respond to the teacher using e-mail. He has been classified as possessing a medium level of ICT competence.

Alison had reasonable ICT skills because she had completed some computing studies during her junior secondary years of schooling, and, in her paid work, had become accustomed to using the coding on the till for entering sales. She did not know how to touch type or how to enter equations into the spreadsheet program, but indicated she wished to learn these skills. She has also been classified as possessing a medium level of ICT competence.

The poor progress of Brad and Jane observed during the initial stages of involvement in the NLP provided the impetus for questions about their level of ICT skill to be asked at their first progress meeting. Both admitted they did not know how to conduct an Internet search or how to send or receive e-mail messages. Jane had reasonable keyboard skills, mainly gained through her experience in the workforce, but she did not know how to use the software packages, Microsoft Word and Microsoft Excel, in the way necessary to complete the unit. However, Jane was prepared to learn from Cathy and eventually was successful in the NLP. Brad was not as receptive to the idea of learning new skills, asking why we had not checked when he entered the NLP that he could use the required tools. He chose not to use e-mail to send work to Cathy, opting to print a hard copy of his work and give it to Cathy in person. Brad voiced feelings of inadequacy and frustration throughout his involvement in the program, with improvement and progress only being made when Jane and James worked with him. This positive collaborative interaction enabled him to shift his attitude towards the use of ICT and to begin using the Internet and e-mail

for communication. Both Jane and Brad had considerable trouble learning to use Microsoft Excel for graphing, not wanting to take the time to learn a new skill when they could complete the task much quicker and with more confidence by hand. Their at-riskness was the reason for their entry into the problem, and omission on the basis of poor ICT skills would have increased this. They both learnt skills they would otherwise have not had opportunity to develop, and left the program with more skills than when they began. Brad and Jane have been assigned a low level of ICT competence for the student factor grid.

### *Level of English literacy*

The students' enjoyment and ease of working through the units of work in the NLP appeared to be linked to their English literacy level. Because all of the instructions were written, those students who could read and interpret the task requirements were able to progress easily through the program. The medium for task completion was also mainly a written one, where tasks involving graph and table analysis demanded a high level of reading comprehension to understand and complete. Linked with the ability to read and write was the need for the students to be able to learn new words and content, leading to an understanding of new concepts.

Craig and Sally had both been successful in their previous schooling, with reports from their previous schools indicating high skill levels in reading, writing, and problem solving. They both had the benefit of continuity of schooling, attending the one school from the beginning of Year 8 until the end of Semester One of Year 11 allowing them to develop the basic skills involved in language construction.

Jane and Brad did not have glowing reports from their previous schools. Their negative behaviour had masked their academic ability, with teacher comments focussing on their lack of attendance and motivation, rather than possible potential for success. The time they had out of school did not appear to have affected their literacy development, perhaps because they both liked to read and write. The teachers' observations and formal assessments of their ability in Semester One classes concluded that they could understand the content and concepts in the language-rich subjects, such as English and History, but that their Mathematical skills were lacking.

Craig, Sally, Jane and Brad have been assigned a high level of English literacy for the purposes of the student factor grid.

James' reports and his mother's comments at the enrolment interview indicated that James had not experienced success at school possibly due to his poor English literacy level. Teachers' observations of James' work and classroom behaviour indicated that he might have a learning disability that was preventing him from reaching his full potential. He and his parents did not want to pursue this issue. James was able to improve his spelling and grammar level by using the spell check facility, helping him produce work of an acceptable standard.

John's experience was similar to James' in terms of his written work, but he was more confident in his verbal communication. He preferred to answer questions orally and demonstrated involvement in classroom interactions. The English teacher, Sue, had commented early in his enrolment that his work was messy, and his spelling and grammar were poor, which may have been contributing factors to his negative attitude in the classroom-based English class.

Alison appeared at the enrolment interview to be confident and articulate, but she did state that she was concerned that her literacy levels were not quite up to Year 11 standard. From observations during her NLP experience, it was evident that she had a limited vocabulary and general knowledge, preventing her from understanding the task descriptions.

James, John and Alison have been assigned a low level of literacy for the purposes of the student factor grid.

### *Attitudes to Learning*

#### *Willingness to persist*

The initial motivating factor for Jane, James, Craig, John and Sally was that unless they completed the unit or units they were undertaking through the NLP they would not be able to enter Year 12 without having to do an overload of Year 11 units in Year 12 and might have to spend three years completing the SACE instead of two. This motivating factor appeared to be sufficient for James, Jane, Craig and Sally to persist with the program. James was engaged in a learning style he preferred, so he was able to complete the unit of Economics with little external support, and enjoyed the process. Craig, like James, was more comfortable interacting with a computer than being in the classroom, but required reminders from me later in the semester to complete tasks when his workload in his other subjects increased.

Jane, on the other hand, preferred the classroom learning setting, but only when she was able to establish a positive relationship with the teacher. She persisted through the NLP Economics unit, even when the technological hurdles for her were large and may have been a barrier to her success, because she found the content interesting and related to her desire to pursue studies in commerce at university. She also received a lot of support from Cathy, the NLP Economics teacher, particularly during times when her lack of ICT skills was a problem for her continued progress. Jane viewed these interventions as positive interactions, with her learning new skills that she was keen to apply to other subjects.

Sally was not able to attend College in the second half of the semester resulting in her involvement with the NLP. The online medium allowed her access to a restricted number of units but she was desperate to continue even when she could not physically attend. She was able to remain connected with the College and used e-mail to communicate with the teachers, submit work and receive feedback, resulting in her completing four NLP units. Jane, James, Craig and Sally have been assigned a high level of willingness to persist.

John showed little interest in trying to work on the English unit in the early stages of his involvement with the NLP. When he realised he could ask for assistance from the teacher, and had access to a learning environment that enabled him to spell and grammar check all of his work, his attitude began to improve. This allowed him to produce a higher standard of work and he became more willing to put effort into all of his units. John has been assigned a medium level of willingness to persist.

Brad and Alison were both eligible for adult re-entry status for the Year 11 component of the SACE. Both decided to undertake Year 11 studies because they felt they needed to develop their academic background before they attempted Year 12 studies. Brad had experienced under-employment for 3 years before deciding to return to school. He knew that his life opportunities would be improved if he could at least finish school and, ideally, go on to tertiary study. He did not leave his negative attitudes to school behind when he dropped out and reactivated them upon his re-entry into the College. His ability to persist in all his studies without a high level of intervention by the teachers and other students was low. His comment, "where is the teacher?" highlights the confusion he suffered about his and the teacher's role in the online learning environment. He preferred the classroom environment but had difficulties dealing with the social aspects of that environment. The fact that he

endured the semester and completed the work required for the NLP Economics unit indicates that he did possess a degree of persistence. He has been assigned a medium level of willingness to persist.

Alison wanted to work full-time and study part-time but was lacking basic skills in many areas including English literacy. Her main goal was to complete Year 11 English, and gain a “good mark” even though this was the most difficult of all the subjects she wished to study. She did not want to give up her job to attend school and was pleased to have the opportunity to study off-campus, believing she had the skills to work independently. Her stubborn attitude gave her high willingness to persist through the NLP, and, although she required a high level of support, she did pass the three units, including English.

#### *Level of self-directedness*

Curriculum provided online requires the student to access information and respond to tasks at a time, place and pace that is appropriate for the individual student. A successful online learner must be able to work in an environment where they are independent of the teacher, class, and traditional supports that classroom learning provides. The level of self-directedness a student demonstrates is difficult to measure, but the level and type of face-to-face verbal communication between the online teacher and the online student could be viewed as an indicator of independence and thus self-management. The students who set their own learning goals in terms of the order in which they completed the work required, who could locate the appropriate resources to complete tasks, who used the appropriate technology to access the curriculum and complete the tasks were assessed as having a high level of self-directedness. With this in mind, James, Craig and Sally demonstrated independence in their learning, with little face-to-face communication occurring with their teachers except via the intended medium, using ICT via e-mail facility.

Phase One participants, Jane and Brad required extensive face-to-face support from their teacher, Cathy, and also interacted with James when they were learning how to use the Internet and e-mail. Brad has been assigned a low level of self-directedness, while Jane, who was willing to ask questions from others, has been assigned a medium level. During Phase Two, John completed most of the reading for the English unit on the step outside the classroom, but towards the end of the semester completed assessment tasks on his own in the library and submitted them to the

teacher via e-mail. John has been assigned a low level of self-directedness because he required the classroom environment to keep him focussed on his work. He did not like not being in the classroom and did not possess the required level of independence to be able to set his own study timeframe. He required Sue to tell him when to do his work and how to do it, showing little initiative to take control of his own learning.

Alison was the participant whose educational needs appeared to be best supported with online delivery because she was working during the day and was unable to attend school. She was, however, the participant who required the most support and demanded the most attention. From her two years in the workforce and maintaining two jobs, she had developed time management skills and it might have been expected that she would also have an ability to show initiative in new situations. But, her poor educational background and low English literacy level impeded her ability to understand the content of the courses and task requirements, causing her great stress and leading to her need to consult face-to-face with the subject teachers on a number of occasions. For these reasons, she has been assigned a low level of self-directedness.

#### *Assigning Success in the NLP*

All the students in the NLP completed the units they began and achieved a SA. For this reason, the SACE result cannot be used to rank the students in terms of their success in the NLP. It would also be misleading to use the final percentage score because of the level of assistance some of the students received from the teachers who were determined that they all succeed in NLP. Each student experienced the NLP differently depending upon their personal factors, and the level of competence they exhibited in each of the skill and attitudinal factors. Using these differences in competence provides a more accurate measure of the success of each student in terms of accessing and engaging in the curriculum than a final grade and allows them to be ranked in their overall performance in the NLP, as in the final column of Figure 5.1. The importance of being competent in each area is discussed in Chapter 7.



## CHAPTER 6

### TEACHERS' CASE STUDIES

In this chapter, two case studies are presented to illustrate the experiences and responses of the key teachers involved in Phases One and Two of the NLP. While the general research question is student-orientated, the teacher's role also requires some investigation because if the teacher is unable to design accessible online curriculum material, the students may not succeed. As mentioned earlier, it is important to remember that in its first two years, Phase One in 1998 and Phase Two in 1999, the NLP was a new program in the College, with the participating teachers encountering their first experience with online curriculum design and delivery. It was a learning experience for all involved with Phase One providing a good opportunity to observe how students react to online delivery allowing revision and modification of programs for Phase Two.

Table 6.1 provides an overview of the data collected about the teachers and is used to construct the case studies. Cathy was involved in Phase One as the teacher of Economics, and in Phase Two as the teacher of Business Mathematics and Personal Information Processing, with Sue involved in Phase Two as the teacher of English. I was involved in Phase Two as the teacher of Australian Studies but have not been included as a case study because my experience as a teacher in NLP was limited to one student who was a capable independent learner and required minimal assistance. However, my comments regarding my role as researcher, NLP leader and SSABSA STAR taskforce school representative are included in the introduction of this Chapter, in the teacher cases and in parts of the synthesis of the teachers' cases. Peter's role as Biology teacher was limited to one student, Sally, for half of a semester in Phase Two and because of this limited involvement has not been included as a case study. Tracey's role of technical support did not involve student contact and she is not included as a case, but is mentioned at points where her involvement was important in the development of the NLP.

Table 6.1. Phase One and Two Data Collection for Teacher Case Studies

| Date         | Cathy  | Sue  |
|--------------|--|--|
|              | 1998 PHASE ONE   |  |
| June<br>July | Initial meeting to discuss format of NLP<br>Student progress meeting   | Initial meeting to discuss format of NLP   |
| August       | Meeting with researcher to discuss progress in writing NLP curriculum  | Meeting with researcher to discuss progress in writing NLP curriculum  |
| September    | Student progress meeting   |  |
| October      | Meeting with researcher to discuss data collection and use of student-researcher                                 | Meeting with researcher to discuss data collection and use of student-researcher                                       |
|              | Student progress meeting   |  |
| November     | Interview with researcher and other participating teachers to discuss Phase Two of the NLP                       | Interview with researcher and other participating teachers to discuss Phase Two of the NLP                             |
|              | End of semester reports and SSABSA results Collection.   |  |
|              | 1999 PHASE TWO   |  |
| July         | Meeting with researcher to accept Alison into the Business Mathematics and Personal Information Processing units | Meeting with researcher to introduce English into the NLP with Alison as the first participant                         |
| August       |  | Meeting with researcher to discuss concerns of Alison and her mother<br>Meeting with researcher, Alison and her mother |
| September    | Meeting with researcher regarding Sally entering the NLP   | Meeting with researcher regarding John entering the NLP  |
| October      | NLP team meeting   | Meeting with researcher regarding Sally<br>NLP team meeting  |
| November     | End of Semester reports and SSABSA results collection  | End of Semester reports and SSABSA results collection  |

## Teachers' Roles in the Development of the NLP

Cathy and I had been concerned for a number of years about the problems experienced by students who could not attend classes regularly. This group of students was generally described within the College as being at risk of non-completion of the SACE, because over time their absences led to them missing content resulting in poor marks for assignment and tests. As a result, these students would frequently leave school during Year 11 or 12, and thus not complete the SACE. Added to this, this particular group of poor attenders took considerable amounts of teacher time because when they did attend, they wanted the teacher to go through the missed content and assessment tasks. This placed considerable stress on the teachers and became a frequent topic at staff meeting conversations. At the beginning of 1998, Cathy, the College Webmaster and I began to discuss how we could formulate existing curriculum into an online medium. The idea was that by putting the curriculum onto WebPages we could reduce the duplication of work required each time a student needed out of class assistance. The curriculum would be there for all to see whenever and where ever the student required.

In March of 1998, SSABSA called for expressions of interest from schools that wished to be involved in the "Students at Risk of Not Completing the SACE Project" (STAR), where schools would investigate strategies to assist students, particularly those from disadvantaged groups to complete the SACE. This appeared to be an ideal opportunity to trial the delivery of an online curriculum at the College for students who could not attend regularly. The College was accepted as a participating school with myself as the Project manager, and thus a member of the SSABSA STAR taskforce, and researcher. My role as the STAR taskforce member for the College was to convey information regarding progress and problems in the project to the SSABSA STAR meetings.

In June of 1998, we had our first NLP team meeting with the entire teaching staff invited to participate on a voluntary basis. Cathy, Sue, Peter, Tracey and the Webmaster volunteered, and together we formed the NLP team. I reported information obtained from the initial NLP team meeting to the third SSABSA STAR meeting in June 1998. I described to the project taskforce the intention of our school-based project, emphasising that we were interested in providing more flexible learning options via electronic delivery on the web to provide students with improved access to

the curriculum. I also raised some of the problems we would need to resolve, including meeting deadlines, and validation of student work (minutes SSABSA STAR meeting, June 23, 1998).

During Phase One, I was primarily involved in the collection of data through interviews with students and teachers, maintaining a journal of my informal observations and conversations and recording discussions from the NLP team meetings. These meetings gave the participating teachers an opportunity to discuss any problems and benefits associated with the NLP. As Cathy was the only teacher involved in teaching a unit at this time, her comments formed the focus of the meetings with Sue and myself as we were keen to learn from Cathy's experiences.

As a team we were able to determine the areas where students may need extra support owing to the lack of a face-to-face teacher. From discussions that took place during the August NLP team meeting I was able to take a list of comments to the next SSABSA STAR project meeting in August 1998, concerning the modifications we felt we would need to make to the College Web site. The list included the need to have the online Microsoft Excel support package working, support pages on study methods, independent learning skills, how to take notes and a hyperlink to SSABSA's homepage to describe the requirements of the Writing Based Literacy Assessment (minutes STAR Project Workshop August 25, 1998).

An agenda item for the August SSABSA STAR project meeting was to report on our discussions with our school-based project teams the definition of our school based problem, using the questions "What is our problem" and the "target group" as a guide. At the August NLP team meeting we discussed this question and I was able to formulate a response for the SSABSA STAR taskforce meeting:

The SACE curriculum is not accessible for students who cannot attend regularly – traditional educational settings do not accommodate all learning styles.

(Minutes STAR Project Workshop August 25,1998)

Defining the target group required more discussion by the NLP team. We referred to our joint experience of students who had not been able to attend regularly in previous years, or whose negative behaviour prevented them from continuing their studies, and after much discussion, identified a list of personal characteristics they possessed. The common thread linking most of the students we discussed was their

high intellectual potential, but a lack of the characteristics that can be attributed to successful learners. The statement describing the target group became:

Students who have the intellectual capacities to succeed but do not demonstrate the characteristics of a successful learner.

(Minutes STAR Project Workshop August 25, 1998)

We formulated a list of the contributing factors associated with a successful learner, with Sue insistent that we use positive phrases. The factors listed were family support, stable accommodation, a positive school experience, motivated, academic achievement, value of education, and a positive sense of well-being. I presented this to the SSABSA STAR meeting as a word web with attendance being the central word. The NLP team felt this was the key factor determining student success and poor attendance was the factor causing stress for teachers and students alike.

Sue was adamant that we categorise the students into two groups, those who cannot access the curriculum for reasons such as illness, criminal justice issues and family responsibilities, and those who choose not to access the curriculum. The second group's characteristics were based on a discussion of previous student cases and included those who had poor past educational experience, developed "learned failure", poor presentation of written work, highly developed ICT skills but not interested in subject content.

The involvement of the College in the SSABSA STAR project during Phase One of the NLP gave the participating teachers an opportunity to reflect and report on their practice while they were developing their units, and receive feedback from educators outside of the College. This support was invaluable and promoted the teacher's professional development, thus encouraging them to persist through the difficult times. The need for detailed data collection and accurate reporting for the SSABSA STAR project contributed to the strength of the Phase One student case studies and enabled sufficient data to be collected to develop cases for two of the participating teachers, Cathy and Sue. Even though Phase Two was not supported by the SSABSA STAR project, sufficient interest had been developed within the teaching staff to sustain the NLP and data collection from participating teachers and students continued until the end of 1999.

## Cathy

### *Background*

Cathy began her teaching career in 1978 when she was employed by the Department of Education in South Australia, teaching subjects from the Business area to students in large high schools, and later, at TAFE. By the beginning of 1998, Cathy had been employed as a part-time teacher in the Business area at the College for 12 years. She rarely experienced personal conflict with students, and on the few occasions this did occur, she was able to reconcile her differences with the student so that a professional relationship could be maintained.

Cathy had a good understanding of ICT and the way it could be used to help improve students' access to the curriculum, so she was instrumental in the development of the NLP concept. Through casual conversations with Cathy in 1997, I became aware that she had been rewriting sections of her units to include web searches and other applications such as Microsoft Excel. Early in 1998, during a casual conversation, she voiced that she was confident she could produce a unit in Economics that students could access through the College's external web site or be provided with on disc if they did not have access to the Internet.

### *Cathy's Experience in Phase One of the NLP*

In June of 1998, the first NLP meeting was held with those teachers who felt they could rewrite their curriculum to suit the external, on-line learning mode. Cathy explained to the group at this meeting how she had altered her unit content and structure to enable students to access the information without face-to-face contact in the classroom. The College Board member who had been acting as the College's Webmaster was also present and made suggestions about how he could format the teachers' work to make it "user friendly" and how they could structure their content within Microsoft Word to make it easy to convert to HTML format.

At this initial NLP meeting, Cathy expressed her belief that students would need to have a good grasp of Internet use and the ability to use the e-mail facility, because this would be the main form of communication between the student(s) and the teacher(s). Cathy also raised her concern that if students did not have access to the Internet, they would not be able to use the hyperlinks she had placed throughout

the content to guide them in their research projects. She also commented that the teachers who wanted to be involved would need to have a higher level of ICT skill than the participating students, so they could “trouble shoot” for them if they encountered difficulties during their unit of study. She said she could offer assistance to the other teachers by running in-service workshops on use of the Internet and e-mail, and formatting for the Web site.

During the same meeting I asked if we could have programs ready for the beginning of the second semester. Cathy stated that a unit of work for Economics was ready, and that it just needed to be up-loaded onto the Web site. She added that she thought Jane and Brad may be good candidates for the Economics unit because they were both keen to continue with the subject but did not want to do the classroom-based subject because of their poor relationship with the teacher. She commented that they were both bright and should not have any major problems with the content. She also said that the NetLearning section of the College Web site might need on-line tutorials for students on the use of Microsoft Excel and Internet search. She stated that from her experience, very few students at Year 11 level could use Excel properly even if they did have a good understanding of word processing applications. Cathy suggested that the new staff member, Tracey, who was employed on a part-time casual basis to teach Mathematics in Semester Two, might have the required technical knowledge to write these tutorials.

During my first teacher meeting with Cathy in July 1998, after Brad and Jane had begun the Economics unit, Cathy commented on the amount of help that both students seemed to need just to access the information because their computer skills were very poor. She expressed a belief that both students were quite capable of managing the content, but they were becoming frustrated at not being able to use the technology required to do an Internet search or send an e-mail. In contrast, James, who had commenced the Economics unit at the same time, had good computer skills and while she described the content of his work as “a bit thin”, Cathy thought he would complete the unit.

During the September 1998 teacher meeting with me, Cathy stated that Brad’s application to his studies was a continuing problem and he would only work when Jane was around. Jane’s use of the computer applications was improving, while James with a good working knowledge of Excel was able to do the Economics demand and supply graphs without assistance.

In October 1998, Cathy told the NLP team meeting that she was still experiencing problems with Brad not completing the course work using the Excel application, and he had not started a research project requiring an Internet search. I was concerned about these comments and initiated a discussion with Cathy, focusing on the personal problems Brad was having, and those associated with the NLP Economics unit. I suggested to Cathy that she take a step back from him to minimise the opportunity of a negative confrontation. I explained to her that my observations of Jane, Brad and James in the library indicated that Brad and Jane had discovered that James had good ICT skills and that they were starting to seek assistance from him for ICT related problems. The teacher meeting that followed allowed Cathy to detail why she believed Brad was still having problems.

Brad is still resisting – he wants to print it [work] off rather than admit he doesn't know how to use e-mail – he even yelled at me “Why can't I just give it to you?” Jane is going fine, and using e-mail. Brad seems to be getting left behind and doesn't like it!

(Teacher meeting, October, 1998)

It was after this comment from Cathy that I suggested she ask James to show Jane, but more particularly Brad, how to use the Internet. Cathy stated that James had nearly finished the unit and she had observed that he was developing a good relationship with both Brad and Jane. Cathy expressed a desire to get Brad through the unit and agreed to ask James to assist both of them. She felt that if she singled out Brad he would become aggressive and refuse to attempt the task. She commented that her observations of both Jane and Brad's Internet use suggested that they found it difficult to discern Internet sites that were relevant for their particular research task. Although they could find a site when its URL was given, they did not have the ability to navigate around the site to find the specific information required. Shortly after this meeting, Cathy told me that she asked James to help both of them with the Internet use and other applications. I observed James later in that week helping both Brad and Jane in the library during their “frees” which was the time that Brad and Jane worked on their Economics.

The October NLP team meeting gave me an opportunity to gather information from Cathy for my report to the SSABSA STAR project meeting concerning any unexpected outcomes of the NLP that may be of interest to the SSABSA taskforce. Two unanticipated outcomes observed by the whole NLP team were firstly, the



improvement in attendance of Jane and Brad in day classes over the time they were involved in the NLP, and secondly, James, who had a long history of not handing in work, was now completing his work using the computer and had increased the length and quality of his responses (Minutes October 22, 1998).

When the next NLP team meeting took place in November 1998, Cathy was able to state that the three students studying the Economics unit had successfully completed the course requirements. She emphasised that Brad and Jane's lack of ICT skills had been a major hurdle to their progress through the unit, and that we, as a group of teachers, should look at this issue before we embarked on developing more units and encouraging more students to study in this way.

### *Cathy's Experience in Phase Two of NLP*

After the NLP team meeting in November 1998, Cathy and Tracey began to write the Business Mathematics unit to be offered in the following year. They worked on the unit throughout late November and early December and had the unit up-loaded and available on the College Web site should students require it for the beginning of Semester One 1999. However, the pattern of student achievement that was observed in 1998 also occurred in 1999, with students requiring curriculum intervention in Semester Two, not Semester One.

In July 1999, Alison became the first student in 1999 whose educational needs could be met through the NLP. Alison wanted to attempt specific SACE subjects so I asked Cathy to meet with me to discuss Alison's entry into the NLP Business Mathematics unit. During this meeting, Cathy told me that she had also been working on a Personal Information Processing unit that was almost completed. I informed Cathy about the enrolment interview I had with Alison, and Cathy remembered her from when she had been enrolled at the College for four weeks in 1998 and was in her Business Mathematics class. Cathy could not remember a lot about Alison's ability but stated that she appeared to be a hard worker. Cathy voiced concern that the Business Mathematics unit had not been trialled and asked me to inform Alison of this, adding that Cathy would appreciate any feedback regarding the unit during the period of her study. She also stated that she would be keen to have Alison attempt the Personal Information Processing unit because it would give Alison the skills she needed to do more online units in the future. From information gathered at general staff meetings, Cathy commented that Alison seemed to be progressing well,

particularly in the Personal Information Processing unit. Cathy believed that her previous typing experience had helped her manage the earlier work, giving her the confidence she required to attempt new skills later in the unit.

In September 1999, I held a meeting with Cathy to discuss the possible inclusion of Sally in the NLP Business Mathematics unit. Cathy stated she was happy to include Sally since the NLP Business Mathematics unit had been based on the Semester Two classroom-based unit she was teaching, and with Alison already in the program she did not have to do extra work to accommodate Sally.

Discussion at the October 1999 NLP team meeting revealed that Cathy was confident Alison would complete the Personal Information Processing unit. She was interested and could apply her skills to her work place. Cathy commented that Alison was sending drafts to her via e-mail and she appeared to be organised, meeting the deadlines Cathy had set. Cathy pointed out that progress in Business Mathematics was not as good, and she felt it was more challenging for Alison. Cathy stated, “her grasp of basic mathematical concepts is poor” and suggested that her disrupted schooling in Year 10 due to her illness might have left her with gaps in conceptual understanding. Cathy thought she would be able to understand the concepts in the unit because the types of mathematical problems she had to solve were similar to ones she would have been exposed to in her work place and experienced as a worker, such as Savings and Spending, Profit and Loss. With considerable e-mail and phone support from Cathy, Alison did complete the unit by late November.

Cathy then compared Sally and Alison’s progress stating that the reason she felt Sally had been successful in the Business Mathematics unit was that, in contrast to Alison, she had completed half of the unit in the classroom environment, so had already developed a “feel” for the subject content. Cathy also commented that Sally was significantly more able than Alison and had the benefit of regular schooling up until September 1999.

By late November 1999, the end of semester reports showed that Cathy had assessed Alison as a SA for both Business Mathematics and Personal Information Processing, and also a SA to Sally for Business Mathematics. During a casual conversation I asked Cathy how she felt about the Business Mathematics and Personal Information Processing units with her reply that she was confident both the units were “user friendly” and could be offered in 2000 with little modification.

Sue

### *Background*

Sue began her working life as a nurse and after having time away from the workforce raising her children, she decided to make a career change to teaching. She completed a Bachelor of Arts degree followed by a Graduate Diploma in Education. She began teaching in 1984 and came to the College as a part-time teacher of English in 1989. In 1999, she completed her Masters degree in Education. She had recently prepared her school work using ICT, but had not undertaken any formal training in ICT and was dependent on other staff at school and family members at home to help her develop her skills in using certain applications, particularly Word and use of e-mail and Internet.

Sue was keen to be involved in the NLP because she felt that there must be other ways students could learn besides having to attend classes. In the staff room, she often talked about the difficulties she had experienced in secondary school, resulting in her leaving at the age of fifteen to train to become an enrolled nurse. Her own children had not had ideal school experiences either, so she was keen to see non-traditional options for schooling explored. As an English teacher, Sue was under more pressure than other teachers to help students succeed, because a student who does not achieve a SA in two units of Stage One English, cannot obtain their SACE. She had to develop a variety of ways to accommodate the learning needs of a diverse group of students to ensure all could succeed if they attended lessons and attempted the assessment tasks she set. In 1998 and 1999 there were two English classes at Year 11 level at the College. Sue traditionally took the academic English unit while the other English class undertook an English communications unit.

### *Sue's Experience in Phase One of the NLP*

During Phase One of the NLP, Sue was constructing her English NLP unit and learning from the experiences of Cathy. The NLP team meetings gave the participating teachers opportunities to openly discuss problems and seek advice from fellow teachers. At the initial NLP team meeting, Sue, along with the other participating teachers, took advice from the Webmaster on presentation of work on the Web site. Examination of her current paper presentation for classroom purposes highlighted the need to rework material, particularly the language that she used, the

need for specific hyperlinks to web references and the general page layout. Another issue raised by Sue at this meeting was the verification of student work, that is, that the work was the student's own. As an English teacher, Sue was required to sign a verification form for the Year 12 English Studies Independent Reading Folio. She had experienced difficulties with some students in the past when they had extracted information from web pages or used past student's work. We discussed some possible solutions and agreed that if regular e-mail contact was maintained, and drafting of work was in-built into the mark scheme for each assessment task, then verification would be easier.

During this meeting, Sue described how she planned to approach developing the unit of NLP English to the NLP team. She said she would modify one of her existing general English units to suit an external study mode. She commented that the context sheets were organised, which are the assessment sheets indicating to the students how many marks will be allocated for each learning objective for each task, but would need to write more detailed instructions as a guide for students to complete each of the summative tasks. She also stated that she was undecided about the texts for the NLP unit. She was concerned that the texts, "To Kill a Mockingbird" and "The Crucible", may be too difficult for students to analyse without the benefit of class discussion and immediate feedback to their questions. She described her next challenge as being the modification of the context sheets from her original templates with hand written comments and instructions into a suitable format for the web site.

Cathy offered to help her with these tasks, and by the August 1998 NLP team meeting, Sue had most of the unit planned and was able to show the group her HTML formatted context sheets. Sue explained to the group that the Stage One English unit requires specific assessment components to be included in each school program. She stated that teachers have a degree of flexibility in what content they can include, so that appropriate texts and assessment tasks can be designed to meet the learning needs of a given group of students. She continued by explaining that her academic English unit currently being taken by students in the day class was intended for those who wish to study English Studies (predominantly English literature) at Stage 2 level. To prepare them adequately, she includes one written text and a play in each semester. The SSABSA curriculum statement requires all students of Stage One English to undertake a "Communication Study" in either semester. She expressed her dilemma in trying to design a unit that could meet the needs of a range of students, and

informed the NLP team that she eventually settled on “To Kill A Mockingbird” as the written text, with “The Crucible” as the play. Sue designed the Communication Study around “Communication in the Workplace”, an exemplar topic commonly used in schools. She included this topic because it was attractive to students due to its workplace relevance and that it involved them constructing their own resume, practising writing job applications and the performance of “mock” job interviews. She finished by confirming that the NLP unit was very similar in content to her classroom Semester Two English unit. She explained that she was careful to include the compulsory Communication Study in this single unit because some students may not have completed this component in their Semester One studies.

Sue stated at the August NLP curriculum writing progress meeting that her poor word processing skills were preventing her from progressing at a faster rate and that she could not “get the formatting right”. Tracey kindly offered to help her with this so that the information could be up-loaded onto the Web site.

At the October 1998 NLP team meeting, Sue proudly announced that the English unit was up on the Web site as a continuous scroll, and that she was happy with the format and the content. During the November NLP team meeting, Sue indicated her enthusiasm to have students enrol in her unit by stating; “I hope someone wants to take this (unit) next year so I can see if it does work!”

By July 1999, there was a group of students emerging from the Year 11 enrolments who required curriculum intervention. Alison was the first enrolment, choosing a unit of English to go towards her Stage One studies. I held a meeting with Sue to discuss Alison’s entry into the NLP. Sue expressed concern at Alison’s desire to undertake the NLP English because she felt Alison did not have a sufficient academic background to handle what was essentially an English literature unit. She said she felt the Communication Study would be very suited to Alison’s needs, but the novel and play would be beyond her skills. Sue had taught her in the four weeks she had attended the College in 1998 and established that Alison was having trouble then, even with her being able to ask her questions in the classroom. She felt Alison’s literacy level was very poor, suggesting that this was perhaps due to her disrupted schooling, or that she was simply not very able.

A few weeks after the meeting with Sue, Alison’s mother rang the school demanding that action be taken to assist her daughter’s learning needs in the English unit. A meeting was arranged with Sue, Alison and Alison’s mother and held in my

office, with me as the mediator. Sue told Alison and her mother that Alison lacked the required English literacy background to succeed in an academic English unit without a lot of assistance from the teacher. She explained that if Alison were in the classroom, she would be able to ask direct questions and gain an immediate response. Sue also stated that she felt that because Alison had little understanding of the words being used in the task descriptions she was not able to grasp the task requirements. After reading through the context sheets again, with Alison commenting on the areas she had difficulty in understanding, Sue agreed that the language used could be simplified and clarified. By the end of the meeting, Sue and Alison had arranged a time when they could both sit down and go through the context sheets together. This led to Sue rewriting the context sheets using less complex language.

Sue remained in my office after the meeting to debrief, and stated that at first she felt threatened by Alison and her mother, but having heard their comments, she could appreciate that her language use was more complex than necessary and that she had used “teacher speak” rather than “common use” language. Sue also stated that she would have liked to be able to trial the context sheets on the day class students before it was “launched” on the Web site and thus have avoided the problems that Alison encountered. I reminded her that she had described to the NLP team at an early meeting that she had taken the context sheets she used in the class and reformatted them for an external study mode, however she had not altered the wording in the context sheets. We spent some time looking closely at the context sheets and Sue said that when she gives them out to the class, she can explain to the students what the words mean, and answer their questions immediately. She went on to say that because she had not been involved in “distance education” before, she was not aware of the problems students might have with the language she was using.

In August, another meeting was requested by Alison, and again it took place in my office, with Alison, her mother and Sue with me as mediator. Alison was upset with the grades she was receiving from Sue for her English work. She believed her work was of a high standard and was questioning Sue’s marking standards. During this meeting I read part of her work in front of her and her mother, commenting on where Sue had corrected Alison’s poor grammar and spelling. Sue attempted to explain to Alison and her mother that their expectations of her academic ability were unrealistic considering that Alison had left school before completing Year 10 and the level of academic English she had completed was of Year 9 standard. Her immature

writing style and poor analytical skills was a reflection of her educational history, not her work ethic or effort. Alison responded favourably to these comments and accepted that she had not completed Year 10, but maintained that her age should indicate a certain level of academic ability.

During August 1999, I approached Sue to take John into the NLP. Journal entries from an earlier general staff meeting recorded that when the issue of John and his problems in the other English class with the other English teacher were raised, Sue indicated that she did not want him in her class as he was a “trouble maker”. During this informal meeting in August, Sue suggested that by offering students like John a “way out” of classroom attendance by involving them in the NLP, we were setting a precedent for all students who did not want to do what the teacher asked. The main concern she voiced was that if he did not have to be in either English class, then he would be wandering around the school during those lesson times distracting other students and teachers. She also restated her previous comment from an earlier staff meeting that she did not want John in her class, because she was worried he would behave aggressively towards her, in the same manner he had to the other English teacher. She stated, “he does not want to be at school, let alone study English”. Eventually, she did agree to have him in the NLP under the condition that he not enter her classroom.

Journal entries from a general staff meeting in September record a number of teachers’ concerns about how Sally’s increased absences were likely to prevent her from passing her SACE units. Her teachers, including Sue, commented that she would have no problem in completing the units using the NLP considering she had presented work of a high standard and had well-developed literacy skills. A meeting was held after this staff meeting between Sue and myself to discuss Sally entering the NLP. Sue indicated at this meeting that she was happy to have Sally in the NLP English because she had an excellent understanding of literature and good analysis skills. She also stated that she had completed most of the work and they could easily negotiate NLP English tasks for her to undertake to complete the requirements of the SACE unit.

Sue reported on the progress of her three students at the October NLP team meeting. Alison was still only achieving a borderline pass, and Sue indicated she might not be able to award her a SA, since her work was not of Year 11 standard. However, Sue appeared happier in terms of John’s progress, commenting particularly

on his work presentation. She stated that while the content of his work was borderline, he took great time to ensure the spelling and presentation was “good”. Sue felt that he was more willing to attempt the written tasks because he could use the word processing function, thus masking his poor handwriting and general presentation. She also was becoming tired of him always asking if he could come into the classroom. Other teachers commented that John appeared to be working better overall and that he seemed to be spending more time in the library working rather than walking around the school. Sue reported that while Sally was not regular in her work effort, she was progressing, and should finish the assessment requirements by the results collection time.

Sue spoke to me in early November and commented that she would have to spend time face-to-face with Alison because she did not seem to understand the task requirements, but was concerned that she would not have the time due to her Year 12 class commitments. I observed over the next few weeks that Sue did spend considerable extra time with Alison, with her often coming into the College during the lunch break on Fridays when she knew Sue would be at school.

By the end of November 1999, the end of semester reports showed that Sue had given Alison, John and Sally a SA for the English unit.



## Synthesis

In this section, the data collected to form the teacher cases of Cathy and Sue are reviewed so that the personal characteristics that enabled them to be successful teachers in the online environment can be identified. The teachers exhibited a set of personal characteristics related to their ability to work in the online environment. Some of the characteristics are similar to the students' characteristics, but there are notable differences because of the different role of the teacher, being responsible for curriculum design and management. The teacher characteristics that appeared to support student success included an ability to promote positive teacher-student relationships, the level of pre-NLP ICT and CMC skills, subject knowledge and curriculum understanding. The attitudinal factors of initiative, persistence and collaboration have been selected because these were closely related to the teachers and their students' sustainability in the NLP.

### *Teacher-Student Relationships*

The College tends to attract students who have not been successful in the traditional school environment and both Cathy and Sue had developed strategies to deal with difficult students over the time they had been teaching. They continually strived to meet the learning needs of the students at risk of leaving school early by being willing to try different teaching strategies, with one of their well-developed skills being the ability to identify a student's learning strengths and weaknesses in their subjects. They possessed the skill of being able to respect the independence that older teenagers crave and provided assistance not only when the students requested help, but subtly intervened when they could see the student was struggling. They were also willing to supply the emotional support students at risk require, with Cathy recognising that Jane and Brad were experiencing a negative, destructive teacher-student relationship with a particular teacher, and that this was causing them to become pessimistic about their whole learning experience. Cathy suggested that a possible solution for their problem and other students like them could be participation in an online learning environment where the nature of teacher-student relationships would be altered.

Sue was also committed to assisting students to learn, even if they could not attend class regularly and she was keen to be involved in the NLP, even though it was

using a delivery mode she was not comfortable with. Sue recognised that John was a difficult boy, prone to negative emotional outbursts in class, but was prepared to support him by allowing him to enter the NLP English class. Sue was reluctant about this because she felt the unit would be too hard for him and may be setting him up to fail, but with Sue using positive feedback and focussing on where his work was improving, he was able to complete the unit. While she would not allow him in the classroom, she was prepared to spend time with him and help him with his work. Sue was also able to continue to work constructively with Alison even after difficult meetings with her mother and provided extra support for Alison when she requested it. She was the first to alert the staff to Sally's emerging pattern of non-attendance and suggested that she would be a suitable candidate for the NLP because of her excellent English literacy skills.

Cathy recognised that when Jane and Brad became frustrated with the NLP Economics unit, their poor level of ICT skills was preventing them from progressing. She intervened by encouraging James to work collaboratively with them, recognising that further involvement on her behalf might build a negative relationship with Brad. She also demonstrated the use of the applications herself, rather than insisting they use the online support materials that clearly were not going to be of use for these two students. Early on in Alison's involvement in the NLP, Cathy identified that she had basic ICT skills to be successful in the NLP, but a minimal Mathematical understanding that might restrict her performance in the NLP Business Mathematics unit. She thought this might be due to her disrupted schooling and recognised that Alison would need considerable assistance if she were to grasp the basic concepts and pass. She was able to subtly provide her with the assistance she needed, even though Alison had stipulated that she was quite capable of working on her own. Cathy also identified Sally as being quite capable academically and in her use of ICT and was keen to see her continue her studies in the NLP rather than "drop out".

As Principal of the College and the NLP researcher and project manager I was responsible to resolve conflict that arose between teachers and students in the project. My previous experience with in dealing with issues arising in the traditional classroom gave me the confidence to assist Sue with the problems she had with Alison and John in the NLP. More importantly, my experience of working with Sue and Cathy allowed me to gauge at what point they needed assistance from me. This

was an important point because it was imperative for student success that positive teacher-student relationships be maintained throughout the NLP.

### *Pre-NLP ICT Skills*

Cathy, who had well developed ICT skills, began rewriting her unit material in 1997 to include web searches and the use of computer applications such as Excel. It was a small step for her to change the format of her Word documents to HTML so that it could be accessible on the College Web site. Her good understanding of the possibilities CMC could provide and her own ICT skills enabled her to make the transition from simply preparing student work using ICT and giving it out in class to posting it on a Web site for all to access.

Cathy had experience in using Excel and wanted to integrate this application into the Economics and Business Mathematics unit for Phase Two of the NLP. She thought that few of the Year 11 students would know how to use the application properly. She recommended that I should ask Tracey, who had significant experience in use of ICT, to design an online Excel support program and that she would work collaboratively with her to make sure the program covered the functions that she would require the students to use. Cathy commented on the poor level of basic word processing skills she observed with some of the NLP students and recognised the need to offer a unit in basic computer application use and keyboard skills, leading to her designing the Personal Information Processing unit.

At the beginning of the NLP, Sue had a low level of ICT competence. She was able to type but not format her work. She was determined to learn how to do the formatting herself and took up Cathy's offer of assistance. She persisted until the August NLP curriculum writing progress meeting in 1998 when her frustration was evident. With Tracey's help she was able to finish the English unit.

### *Subject Knowledge*

Subject knowledge and teaching experience appeared to be closely linked, but during the NLP team meetings when the teachers explained why they had chosen certain content, it became apparent that the teachers' subject knowledge was crucial in the development of appropriate content to suit the online learning environment and to meet the diverse learning needs of the students.

Cathy was aware that an introductory unit in Economics should contain the concepts of demand and supply. The topic relied on graphical representation of the relationship between the two factors. She decided that the inclusion of the graphing facility that Excel supplied was vital for her to teach these concepts successfully. When she constructed the Business Mathematics unit, she chose the topics of Saving and Spending and Profit and Loss because they would be more appropriate for an online environment where Internet research could be incorporated. The Personal Information Processing unit required extensive use of the software applications common in work presentation, so she chose topics that would enhance students keyboarding and formatting skills and expose them to a range of commonly used applications such as Excel and PowerPoint.

From the beginning of the NLP, Sue was in a dilemma about the content she should include. She enjoyed teaching English literature, and initially wanted her NLP English unit to be the same. She did, however, understand that the type of contact she would have with the students in the NLP would be quite different to that of the classroom where there was opportunities for class discussion and immediate feedback to students' questions. She viewed the "Communication in the Workplace" topic as being of relevance to the students at the College because it was workplace orientated and would give them an opportunity to develop their resume and job seeking skills.

### *Curriculum Understanding*

There is a set of detailed curriculum "rules" that govern the SACE and determine what a teacher can and cannot do in specific SACE subjects. All subjects that are taught by a school must have an accompanying assessment plan. This is sent into SSABSA and either approved or sent back to the school for modification. The teacher must be able to show that the assessment they have set will suit the learning needs of the students taking the subject, and that all of the objectives of the subject curriculum statement will be taught and assessed. Cathy, Sue and I had wide experience in curriculum design, and we were aware of the flexibility in our curriculum area in terms of the structure of the units and the assessment possibilities that could be offered to suit different learning styles.

This knowledge allowed me to design the Australian Studies unit with an overview and only one issues study that would still meet the objectives of the unit. Cathy was able to pick the topics for the Business Mathematics subjects that she felt

would be most useful for students studying independently. She also chose the Personal Information Processing topics that would give the students opportunities to develop typing and personal document preparation skills. Cathy included the Communications Study in the English unit knowing that it would allow students to meet the one compulsory requirement of the two units of English all SACE students must do.

Accommodating “umbrella” rules, such as verification of student work, required discussion with the NLP team deciding that if students could send drafts of their work in and then modified it, we could accept it as theirs. Regular e-mail contact asking specific questions about progress with specific tasks was also seen as a key to the authenticity of the work.

### *Initiative*

New ways of “doing” only come about when people are prepared to take action to solve a problem. The problem defined by the NLP team was “The SACE curriculum is not accessible for students who cannot attend [school] regularly – traditional educational settings do not accommodate all learning styles”. Cathy took the initiative of suggesting an online medium for our existing curriculum early in 1998. She had been working on converting her units to this format during 1997 and once she felt confident it could work, she voiced her confidence by saying she could produce an Economics unit accessible through our Web site, or on disc for those students without Internet access. Cathy continued to develop units for subjects where she could see a need for an alternative delivery mode including Business Mathematics and Personal Information Processing.

Sue was supportive of the project from the beginning because from her own educational experience she knew that there must be other ways for students to learn besides having to attend classes. She was responsive to the problem highlighted to her by Alison with her English unit context sheet language, and took action to change the wording. She was willing to make changes that she knew would assist other students in the future. Accepting that she had used “teacher speak” was an important learning experience for Sue.

### *Collaboration*

Cathy, Sue and I had been working together for 9 years and respected each other personally and professionally. Being part of a small staff of only 10 teachers, we shared our concerns with other teachers about our students and the problems they faced. This cross-curricula discussion allowed other teachers to suggest possible ways of dealing with difficult situations, or ways of presenting content or designing assessment tasks.

The strength of the NLP team was our ability to work as a team. Cathy was clearly the most skilled practitioner and she provided constant support to Sue and me. In the early stages, the Webmaster also worked closely with the NLP teachers, showing us how our work could be made “user friendly”, explaining how we could achieve the formatting we wanted, and assisted in the up-loading of our work as it was completed. Cathy and Tracey, the support teacher, worked together through the summer holidays to ensure the support programs were ready for the 1999 school year and Tracey also assisted Sue when she was requiring help to finish her English unit.

The NLP team also collaborated with the students to ensure they completed their assessment tasks. Where possible, the students were assisted by the teachers and they in turn were prepared to work with the teachers to supply comments where they felt modification of the units or teaching style may be necessary.

I was fortunate to be in the position of SSABSA STAR project leader within the College and hence able to work with the SSABSA STAR taskforce throughout 1998 and 1999. Most of the SSABSA STAR meetings began with a discussion of where we were in terms of our research, and what problems we had identified that may need assistance from the STAR project taskforce. I asked the NLP team for advice before each of the SSABSA meetings and would obtain independent feedback on the issues we were facing, such as verification of student work and changes that use of the online medium was having on our teaching practice. On reporting back to the NLP team, discussion was promoted allowing the team to think about other changes taking place in student behaviour, such as James was completing and handing in written work, and Jane and Brad’s attendance had improved.

### *Persistence*

Persistence was a necessary characteristic for the teachers involved in the NLP. A new teaching method was being trialled, involving constant learning by trial

and error, and there were times during the data collection when Cathy or Sue could have withdrawn. One of the challenging situations for Sue was her frustration when her ICT skills were limiting her progress. She spent long hours sitting at her computer trying to achieve the format she wanted. She had to persist, seek help and then finish the task to continue her involvement in the NLP. Her second challenge came with the enrolment of Alison into the English NLP unit. Both Alison and Sue were prepared to persevere, and most importantly, work together to ensure that Alison completed the NLP. This experience gave Sue the incentive to change her language use in the context sheets and improve the accessibility of the unit for students. I was demanding a lot from Sue when I asked her to accept John into the English NLP unit. She was not convinced that his entry into the NLP would be good for either of them, but after some difficult moments she persisted with him, helping him complete the unit.

The teachers involved in the NLP were dedicated to the support of students at risk of not completing school and because of this, were willing to try different, untested strategies to improve student learning outcomes. Sue's lack of well-developed ICT skills was overcome by her willingness to persist with the online mode of curriculum delivery. Thus skills which can be developed during the professional development of a teacher concerning their ability to promote positive teacher-student relationships, ICT skills, subject knowledge and curriculum understanding can only be as strong as their attitudinal factors which include initiative, persistence and collaboration. In the final Chapter, the personal characteristics required by students and teachers to be successful in the online environment will be reviewed and the importance of each in determining the success of achieving student learning outcomes discussed.

## CHAPTER 7

### SUMMARY, CONCLUSIONS AND IMPLICATIONS

This study addressed the problems students have in accessing the SACE curriculum when they cannot attend school regularly. The aim of the study was to examine at-risk students' experiences, perceptions, and progress during the time they were involved in the NetLearning Project (NLP) at Muirden Senior Secondary College.

In this chapter the research questions are revisited and the method is reviewed. Next, the conclusions are presented to answer the research questions by drawing out the personal characteristics students need to be successful in the online environment and to identify the teacher factors that support students. The current status of the NLP at the College is outlined, providing a picture of how the experiences from the study have been used to further develop the NLP. The implications of the study for the College and other schools and suggestions for teacher training follow, set in the current context of education in South Australia. The need for further research and possible research questions are posed to end the chapter.

#### Summary of the Research

The general research question asked, "What factors determine the effectiveness of students' online access to the curricula?" The specific research questions were

1. What are the personal factors that allow students to be successful in the online learning environment?
2. What are the teacher factors that support students in the online learning environment?

The research was set in the context of reports in the mid-1990's of falling retention rates across South Australia that prompted SSABSA, as a result of recommendations made in the SSABSA SACE Completion Project (SSABSA, 1997), to support six schools to undertake action research to explore, test and trial new ideas and strategies to improve learning outcomes for students at risk. This project became known as the Students At Risk of Not Completing the SACE (STAR) Project.



At Muirden College, the SSABSA STAR research project involved the delivery of curriculum using an online strategy, and was termed the NetLearning Project (NLP). The strategy was used to support seven students who, for a range of reasons, were not able to attend day classes but who wanted to complete an academic Year 11 program to allow them to enter Year 12 in the following year. All of the participating students had university as a possible future pathway.

The study occurred in two phases. In Phase One of the research data were collected from students and teachers during 1998 in association with the SSABSA STAR 1 project. These data were used by the College NLP team to assess the effectiveness of the strategy and identify modifications required to the content and structure to improve future student learning outcomes. Phase Two carried out in the following year was an extension of Phase One and involved a new group of students and the introduction of new subjects.

The study focussed on the three students undertaking a NLP unit in Phase One, the four students involved in Phase Two, and the two teachers who designed the curriculum. The study was longitudinal, using a qualitative approach based on interviews with students and teachers, interviews of Phase One students by a fellow student, analysis of students' work and communications, and other relevant documentary evidence, including records of meetings, and my journal as leader of both phases of the project. The data were used to build case studies of students and the teachers who participated in the NLP. By re-visiting the cases to find common threads, the research questions could be answered.

### Reflections on Method

The study concentrated on a small number of students and a small number of teachers in one school enabling in depth and detailed information to be obtained about the factors that affected student access to the online curriculum. While the collection of summative assessment data was important to gauge students' academic success, this alone would not have given the detail required to allow a comprehensive analysis to be made of students' and teachers' actions and comments and thus discover the factors required for success for all participants in the NLP. The longitudinal design allowed the students' and teachers' reactions to the NLP to be gathered throughout their involvement and the inclusion of two phases of the study provided teachers with

the opportunity to critically reflect on their experiences in Phase One and modify the program where appropriate for Phase Two.

The use of a student-researcher for data collection at the end of Phase One gave the students an opportunity to convey their impressions of the NLP to a peer, rather than a teacher. In this way, I endeavoured to capture the students' honest perceptions of their relationship with the teachers in the online environment and general feelings of the NLP from a learner's perspective from the student-researcher interviews. In addition, my own progress interviews with each student, and the teachers' comments made during the NLP team and staff meetings provided two further independent sources of data, allowing for triangulation of the students' views of the NLP. The teachers' views of the NLP were gained from my observations, teacher interviews and records of NLP team meetings.

The small sample size, which included all of the participant students and teachers over the two years of the study, may be considered a negative aspect of the study design. However, the students involved in the study exhibited a wide range of personal characteristics typical of students at risk of not completing the SACE and consistent with characteristics identified from research in other parts of Australia and overseas. This provided good coverage of student characteristics. Nevertheless, the findings may lack generalisability, because of the special circumstances of the project. The teachers volunteered to be involved in the study and clearly had high levels of motivation and interest in the NLP. They had to learn new skills to be able to complete their unit for presentation on the College web site, and also had to adapt quickly to a new teaching method of which they had no experience. They also were expected to attend extra NLP team meetings and teacher meetings, requiring a considerable amount of time. Further, because of the teachers' high level of commitment, they were willing to persist and provide extra support through difficult times when the students were not progressing at sufficient pace to finish the unit by the SSABSA results collection time. Together these factors suggest that the findings may be generalisable only to situations where the teachers have similar levels of skill and commitment.

It is acknowledged that my role as researcher and participant in the study may threaten the trustworthiness of data and objectivity of the interpretation, so a range of member checks were in place throughout both phases of the study. During the SSABSA STAR meetings, which occurred throughout Phase One, I was required to

present a progress report to the SSABSA taskforce on the status of the NLP, and answer questions from the group. At each meeting, the minutes from the last meeting were distributed for verification by each of the participating schools. This provided me with the opportunity to reflect on my interpretation of data collected. Before each of the SSABSA meetings, I checked with the NLP teachers that my progress report was accurate, allowing me to validate data. The comments made by the teachers about the progress of students were able to be revisited and validated by the teachers, and also enabled the teachers to hear what the students were telling me about their experiences and feelings during their involvement in the NLP. As a final check, the teachers were able to discuss their case studies with me to confirm the accuracy of data collected.

## Results and Conclusions

The purpose of the study was to determine the effectiveness of students' online access to the curricula. Two research questions, one relating to students and one relating to teachers, were investigated. The results are presented here in two sections reflecting the research questions.

### *Factors that Allow Students to be Successful in the Online Learning Environment*

A synthesis of the students' case studies revealed that several factors enabled them to be successful online learners. These included personal factors concerned with access to a computer at home and continuity of schooling, skill factors relating to the level of ICT skill and English literacy, and attitudinal factors of willingness to persist and self-directedness.

### *Personal Factors*

#### *Access to a computer at home*

The students who did not have regular access to a computer outside of the College were forced to complete their work at the College during the school day. Fortunately, these students had entered into the NLP because of behaviour problems in the classroom, and had the time they would normally have spent in their class to do their work. For them, NLP was an alternative way of accessing the curriculum when

they were attending school. The students who were undertaking extra units or unable attend school, had access to a computer at home and were able to complete their work. The NLP would not be an advisable strategy for students without computer access at home and who are unable to attend school simply because of the likely difficulty in regular online access. These findings reinforce the research of Inglis et al. (1999), Hiltz (1994), and Koufman-Frederick et al. (1999) that online learning is a flexible learning mode only if the student has access to a computer at times when they may wish to study.

### *Continuous schooling*

Brad, Jane and Alison were re-entry students after a break from schooling. Jane and Brad's previous high school experience had been negative, characterised by regular truancy. The effect of irregular attendance was to leave gaps in their learning. The study showed that students were able to cope with re-entry into an educational environment only after they had accepted the social and educational demands of senior secondary schooling.

The students who had completed Year 10 and continued into Year 11 did not suffer the same level of discomfort in the NLP as the re-entry students. They were able to accept the teaching approach of the NLP unit and, rather than stopping when they came to a problem, they sought help and continued with other work while waiting for a teacher response. Their general confidence and ability to manage a different learning environment were higher than the re-entry students. It seems the students who had been successful in the classroom learning environment, such as Craig and Sally, were also successful in the online environment. This is surprising if one considers that the re-entry students, Brad, Jane and Alison were older and had more life experience than the other students. Knowles' (1990) suggestion that any group of adults will be more heterogenous than a group of youths is perhaps worth consideration. The re-entry students were still under 20 years of age and they demanded individualised teaching and learning strategies, while the other students required little extra support.

## *Skill Factors*

### *ICT skills*

The literature describing prerequisites for successful online learning suggests that participants without well-developed ICT skills (Hiltz, 1994) may have difficulties with educational access in the online environment. Evidence from the NLP students' progress showed that the students with the highest level of pre-course ICT skills managed to progress through the unit they chose with ease, a reasonable outcome to expect considering the nature of the instructional medium.

Ability to use a word processing package and its applications allowed students to produce well-presented work. If they had good typing skills, particularly touch-typing, their work rate was enhanced. Microsoft Excel was an application students used in all but the English unit, and was the most difficult to master. The students with experience with ICT felt comfortable using Excel and applying it to new situations, whereas Jane and Brad, who had limited skills simply refused to use it. These two students did not attempt to use the online tutorial assistance, preferring to depend on considerable face-to-face support from their teacher and a fellow student, James. A consideration for the teachers was that if the students would not use the applications, then the assessment tasks were out of their reach. Brad expected a traditional teacher's response and stopped work until the teacher could demonstrate how to use the program, whereas Jane continued with other tasks. In Brad's mind, the teacher's role was to provide him with the skills and content required to complete the program, which in a normal class is a realistic expectation. At some stage, either before the students began the NLP or during their involvement, they had to learn the required skills. There was general resistance among the low ICT-skilled students to learn new skills, which may have sprung from poor past school experiences.

The intended form of communication between student and teacher was the use of CMC applications, which in reality was restricted to e-mail. A pattern of resistance to hand in completed work evident in James and John's previous classroom learning experience appeared to be overcome with the use of word processing and CMC. However, the low ICT skilled students, Jane and Brad, refused to submit work via the e-mail, particularly work which required the use of Excel to complete graphs and tables, until the teacher had showed them how to do it. The NLP posed a new way of communicating with a teacher, and some students were not comfortable with it, either because they lacked the necessary skill to use e-mail or they did not see this kind of

CMC as appropriate for their learning needs. These students seemed to be more reliant on the presence of a teacher than the higher skilled students, who used e-mail for the submission of work and for most correspondence with the teacher.

### *English literacy*

The online learning medium requires textual skills (Hiltz, 1994) and a high level of English literacy was important for success in the NLP. The teaching materials and descriptions of assessment tasks were text based, as were the majority of assessment tasks in the units. Alison and John, who had low literacy levels, progressed slowly early in their involvement in the NLP, but their work showed improvement because they were able to use the editing features of the writing software, such as the spell and grammar check. These features gave James the opportunity to present his work after he had time to modify it using the editing features. Hiltz (1994) and Harasim et al. (1995), who saw these features as an advantage of online learning, described how students could take time to draft their work before presenting it to the teacher. The online environment gave the boys, James and John, with poor handwriting, spelling and grammar, an opportunity to focus on the content of the work rather than the presentation, ultimately leading to an improvement in their academic performance.

### *Attitudes to Learning*

#### *Persistence*

An online learning environment places more responsibility on the learners and increases their workload. Harasim et al. (1995) and Hiltz (1994) warn that in the absence of a timetable, students need to organise when and where they would study and remember where they were up to in a sequence of learning. Students in the NLP were required to initiate dialogue with the teacher if they encountered a difficulty, and be able to plan their learning so they did not have periods of inactivity while they waited for their question to be answered. This required “stickability” so that when they reached a difficult part of the unit, or found they did not have a necessary skill, they would persist and not give up.

Most students, in any learning environment, face obstacles during their studies, with the individual’s goals becoming an important feature of their persistence. This study showed that students with a task or mastery-orientation towards achieving

their academic goals appeared to be able to persist through difficult times, even if they lacked basic skills. Nicholls (1992) describes that as a student develops a mastery orientation they will exhibit problem solving strategies and "self-skills" because they become focussed on achieving their goals and mastering new skills. This was particularly evident with Jane and Sally because they were able to attach intrinsic value to involvement and participation in completion of the learning tasks, with a willingness to apply effort learn new skills and thus gain academic success, resulting in successful completion of their NLP units.

### *Self-directedness*

Students in this study who suffered teacher-related behaviour problems in the classroom continued to have a poor attitude to learning in the online environment. This was particularly evident in Brad's and John's behaviour because they responded to the online learning environment with the same negative attitude they had developed towards classroom learning during their middle schooling years. The online learning model is dependent on adult learning principles, as described by Inglis et al. (1999), Jones et al. (1994) and Harasim et al. (1995), and encourages self-directed learning and other self-regulatory processes. Unfortunately, these unsuccessful students' inability to change their attitude to schooling put them at higher risk of non-completion. Chance contact with both Brad and John at the end of 2000 revealed that neither had continued with school, nor completed their SACE. Perhaps these students were simply not ready to make the transition to self-directed learning, and still required the teacher in the classroom to guide their learning process. Knowles' (1990) comment regarding students who do not appear to be able to make the transition to an adult learning environment, that "they hark back to their conditioning in their previous school experiences, put on their dunce hats of dependency, fold their arms, sit back, and say 'teach me'"(p. 59), is indicative of the type of behaviour displayed by Brad and John.

The participating teachers had hoped that in the online environment, self-skills in the students would be promoted, because there was an opportunity to develop a different kind of student-teacher relationship, with the teachers' role reconstructed to that of curriculum manager rather than controller of behaviour and learning. Brad, Alison and John held the belief that the teacher should be there, in person, ready to

assist when they required help, and they did not respond well to the concept of a teacher's communication being e-mail text on a computer screen.

The reason why some students will show a high level of self-directedness and others low levels is complex, with the literature in this area suggesting different reasons for academic motivation. In the 1980's, Bandura (1986) stated that individuals possess a self-system that enables them to exercise a measure of control over their thoughts, feelings and actions. He used the term self-efficacy to describe the belief that persons have in their own ability to organise and execute a course of action to manage a given situation or task. A person's self-efficacy will influence the choices made, the effort put in and persistence when confronted with obstacles. It is concerned with an individual's assessment of his or her competence to perform a task in a given domain, thus is closely associated with the achievement of goals. Self-efficacy is a behavioural feature associated with all people, regardless of their age, so it may help to explain the actions of the students in the NLP who had not yet attained self-directedness. Unlike self-concept, which is related to self-esteem, according to Bandura, self-efficacy is context and task specific. In the context of the NLP, students needed to use a learning medium with which they had no prior experience, so their pre-existing level of self-skills would be an important aspect of determining their success. There is ample evidence in published research, Pajares and Schunk (in press) claim, to support the notion that students' academic behaviours and achievements are directly influenced by the beliefs they hold about themselves and their academic potentialities. Therefore basic academic skills are often directly related to students' belief that they can or cannot perform a particular task. They have learned to see themselves as either capable or incapable of handling academic work, and will see work as either relevant or irrelevant in their life. Brad and Jane believed they were capable of understanding the concepts of the NLP Economics unit, which may have given them the motivation to persist through parts of the NLP they found difficult, that is, when they had to use ICT where they had limited skill. Jane, believing she could learn to use the Internet and other applications, continued to learn, whereas Brad resisted, perhaps because he had a lower level of self-efficacy in terms of his belief in his ability to manage the use of ICT and thus was not willing to put effort into the tasks.

According to research investigating the learning needs of students at risk conducted by Dwyer (1996), Holden and Dwyer (1992), Mapstone (1999) and



Webber and Hayduk (1995), students' attitude to learning is closely related to their relationships with teachers. They recommend that adult learning principles should be integrated into programs designed to assist students at risk to promote student responsibility for their learning. This would appear to be a positive step forward, but students like Brad and John, with an inability to accept responsibility for their learning, need to first learn to see themselves as successful learners before they can adopt adult learning characteristics. Perhaps as teachers in the NLP, we needed to assist these types of students more, regardless of their age, so they could learn how to make the transition from dependent to self-directed learners.

#### *Teacher Factors That Support Students in the Online Learning Environment*

The findings in this section are based on case studies of two teachers and the experiences of the researcher. All had many years of teaching experience and at the time of Phase One had been working together for 9 years. The teachers had no prior experience in teaching via, or developing curriculum materials for, the online environment, but were committed to the concept of providing increased curriculum access for students who could not attend school or who were not able to manage the face-to-face classroom environment because of negative teacher-student or student-student interactions.

Analysis shows that the teacher characteristics that support student learning can be seen to be inter-related and not easily separated into particular attributes. The participating teachers' ability to support the individual learner by promoting a positive, collaborative learning environment was a determinant of success in both Phases One and Two of the NLP. The main difference between the teachers was their level of ICT competence and confidence, while subject knowledge and curriculum understanding were of a similar level. Each teacher had her own teaching style and way of communicating.

#### *Teacher-Student Relationships*

Three of the students, Jane, Brad and John, became involved in the NLP because of their inability to "get along" with particular classroom teachers. The comments students made about their relationships with teachers in both the classroom and NLP learning environment illustrate the importance of interpersonal relationships between teachers and students in determining some of the students' success in an

online environment. These students had been at the College for one semester before the NLP intervention and had developed positive relationships with some teachers and negative relationships with others.

The students in the NLP described the teachers in the NLP in positive ways, using phrases like “non-confrontational”, “giving help straight away whatever the problem”, “being made to feel special”, and “being there”. Negative comments were made about the classroom teachers they disliked included, “not helpful”, “out to get me”, and “grossly unfair”. The foremost negative comment about the NLP as a means for curriculum delivery was “where is the teacher?” It would seem that the ideas on students’ views that Nash (1976) put forward about interpersonal interactions between subject teachers and students are as evident now as they were 30 years ago. He identified important teacher characteristics that encouraged positive teacher-student relationships including fairness, helping students by explaining work, and being friendly. These features are still very important to students and to their success in any learning environment.

A factor of importance for some of the NLP students was the teacher “being there”. For the three students with behavioural problems, it was crucial for them to have face-to-face interaction, even though they had rejected this in the classroom. These students often commented about the amount of help they received from the NLP teachers and similarly, the teachers commented about the amount of help these students needed!

Jane and Brad, who had not been able to maintain successful relationships with teachers in the classroom environment, developed a close working relationship with Cathy, and this then improved their overall attitude to school. John also showed a change in behaviour during his involvement in the NLP and was more willing to work in other classes as a result. These changes may have come about because the students were somewhat empowered through the NLP. They were in control of when and where they studied and were not required to conform to the normal behavioural expectations of the classroom. Being able to use the word processor was a clear benefit for James and John because they could present their work much better than when it was hand written, giving them improved confidence in submitting work to the teachers.

### *Pre-NLP ICT Skills*

The teachers involved in the NLP were required to re-write their curriculum material to make it accessible to students in the online environment. This was a task they were required to perform with no formal training or guidance. Cathy, the teacher who first suggested the online curriculum delivery mode as a way to increase educational access for students, had well-developed ICT skills and was comfortable with the online format. She had the skill to integrate ICT into the curriculum, such as designing research tasks that required students to search for information on the Internet which enhanced their learning experience. She also required students to use software programs such as spreadsheets to prepare graphs from data they had collected from their Internet research. Her use of ICT in curriculum development was complemented by her ability to assist students with their own ICT skill development, recognising warning signs from students, particularly Jane and Brad, who were not coping with the use of ICT in the work requirements. It must be emphasised that the units she was teaching, Economics, Personal Information Processing and Business Mathematics, lent themselves to the use of ICT.

Sue, on the other hand, with a low level of ICT competence, struggled with both formatting her English unit for the web site and choosing the appropriate language to use for students who would not have face-to-face contact. She spent considerable time developing the ICT skills she required to be able to construct the curriculum materials she wanted to present on the College Web site, resulting in slow progress. The external delivery mode caused significant problems for Sue because she had to rewrite her materials in a way that could be understood by the students in the absence of classroom discussion where clarification of written task requirements would normally be given. Fortunately, the English course she developed did not involve the integration of ICT into the content of the course, a task that might have been beyond her skill level.

It is evident from comparing the skills of these two teachers that if online curriculum development is to occur, appropriate training in developing both ICT skills and integration of ICT and CMC into the curriculum is required. Cathy had a positive experience being involved in NLP and was keen to develop more units for Phase Two, with her students being well supported by her, both academically and in ICT skill development. Sue, with a poor level of ICT, was only able to manage her own ICT learning needs and was not able to provide a suitable online program without

considerable assistance from Cathy, and in-course modifications prompted by complaints from students. Without these important modifications, Alison, John and Sally may not have been able to succeed in the NLP English unit. The important issue here was that Sue was willing to learn, and did not give up.

### *Subject Knowledge*

The teachers' level of experience in teaching subject content was an important factor in their ability to produce a unit that could be taken in the online environment. They believed that students could better understand some concepts when computer applications could be accessed allowing the students to manipulate figures and produce graphs. The Microsoft Excel program was used in all of Cathy's units to enhance student learning. Sue, who had been teaching Stage One English for many years, was faced with a dilemma about which texts to use, eventually choosing ones she believed students would be able to manage with limited classroom interaction. She also chose a topic "Communication in the workplace" for the unit because it would involve students in Internet research and use of the word processing program for producing their own resumes. I was able to develop a unit of Australian Studies involving a large amount of independent research with little teacher input. As a group of experienced teachers, we were confident in our knowledge of our subject area and were able to select topics and assessment tasks we knew worked well with limited face-to-face contact.

### *Curriculum Understanding*

The teachers in the NLP had many years of experience in teaching and developing curriculum within the SACE. This enabled units of work to be constructed in a manner they believed best suited the delivery mode and accommodated a range of student learning styles. It was evident that the teachers required a good understanding of the rules that govern the SACE and individual subject areas so assessment plans for their unit of study were approved by SSABSA.

Verification of the students' work to ensure that it was their own was an issue in the early stages of the NLP. After discussions between the NLP and the SSABSA STAR taskforce, we agreed that exchange of work drafts between the students and the teacher via e-mail to view and comment on work in progress was an essential

component of the verification process, and also assisted the students' learning process by providing feedback.

### *Initiative*

The teachers in the NLP found that in the online environment the issues surrounding student learning were different to the traditional classroom because of the reduced face-to-face contact. They had to develop new ways to deal with learning problems and also manage the behaviour of an online student. They noticed that their role had changed from being an authority figure controlling a social situation to being more of a guide and working individually with students. Most importantly, the teachers had to analyse carefully the problems they and the students encountered carefully and enact solutions quickly to allow progress through the units.

The level of commitment that the participating teachers demonstrated was an important sustaining factor in the project. They were willing to learn from their mistakes and modify their programs. They were also prepared to spend large amounts of time learning new skills and thinking about the new way of teaching the NLP required.

### *Persistence*

Cathy and Sue both encountered difficult times within their NLP teaching experience when it would have been understandable if they had given up. Brad proved not to be suited to the online learning mode and voiced his disapproval on a number of occasions, frustrating Cathy and resisting her efforts to encourage him to learn new skills. Sue encountered major difficulties with both John and Alison, but listened to their concerns and made appropriate changes to her course.

From these negative experiences came a gradual change in teacher-student relationships where both parties were willing to persevere because they shared a common goal: to finish the unit successfully. That students achieved a satisfactory achievement SACE grade was a positive outcome for the NLP teachers because it indicated to them that they had succeeded as teachers. As with the students, the self-efficacy level of the teachers was an important factor in determining their success as online teachers. They believed that they possessed the ability to manage the online environment and thus were prepared to put in effort and persist through the difficult times.

### *Collaboration*

The teachers in the NLP had the advantage of having worked together for a number of years before the project began and had built positive relationships with one another. We felt quite at ease discussing our problems and often sought advice from each other when difficulties were encountered and were prepared to learn from each other's mistakes. This generated a positive, supportive, collaborative environment and enabled progress to be made through the difficult times, particularly when students such as Alison and John were not progressing well.

There was evidence that teacher-student relationships changed in the online environment. Individual students approached their online teacher for assistance when they encountered difficulties, leading to the feeling of a team effort, where collaboration between all parties was an essential element for students' academic success. During Phase One of the NLP, my involvement with the SSABSA STAR 1 taskforce proved to be an invaluable source of support and encouragement, where educators external to the College provided suggestions on how to manage the problems we were encountering. Collaboration with these educators of varied experience removed the isolation that the NLP team may have experienced in Phase One if we had tried to initiate the NLP solely within the College with no opportunity for external input.

### Current Status of NLP at the College

Findings from this study gave the NLP team the information needed to expand the program to all students, whether at risk or not. All students now have the choice of undertaking units in the classroom or accessing the online units. At Stage One level, Personal Information Processing, Australian Studies and Legal Studies (introduced in 2000) have been taken by a number of students with Personal Information Processing now only offered online. Students can undertake one unit of Australian Studies as a classroom subject in Semester One, or they can enrol in the online unit at any time during the year. In 2000 two Year 12 subjects, Personal Information Processing and Legal Studies, became available online.

After the study concluded, the NLP team realised that some students might have continued on at school into Year 12 if class-based subjects were available after

hours. In 2001, night classes in Biology, Geology, Modern History and Legal Studies were introduced. While these classes have been fairly small (average of 10 students) the majority of students have been part-time and either work during the day, are young mothers or are enrolled in another school for day classes and have a timetable clash.

The flexibility of offering three delivery modes has increased students' ability to organise their lives to include study and thus helped a number of students already at the College to continue their enrolment, if only part-time, and encouraged new students to re-enter school. An important shift in my thinking came about after analysing the student cases in the study. This was the realisation that schools need to consider how they can fit the student's life, not how the student's life can fit into school. Year 12 students can take three years to complete the five subjects they require to gain a TER, so it is possible for a student, with a combination of NLP and evening classes, to gain their SACE and a TER, even if they are unable to attend school during the day. In reality, students tend to enrol in the NLP units when they are unable to access the day or evening classes, with the most common reason being irregular work commitments. Few students have indicated that they prefer the online mode to face-to-face learning. We have found that to improve student learning outcomes in the NLP, there was a need to program a short time each week when the teacher was available at school for the students to discuss any problems they have with face-to-face contact.

### Current Context of Senior Schooling in South Australia

Since the data collection for this study was completed in 1999, the interest of the State Government in school retention and completion figures has increased. There is widespread concern among educators and government officials that without action to reform the senior years of schooling the trend of high non-completion rates will continue.

DETE, through its South Australian Curriculum Standards and Accountability (SACSA) framework, is developing a senior years strategy, with current research occurring in the area of retention and achievement data analysis (M. Sanderson, DETE, personal communication, November 28, 2002). The information from this research should enable a clear picture to be obtained of which kinds of students are

not completing school, leading to the development of ways to reform the senior years enabling a higher percentage of students to complete the SACE. If the results from current research continue show that young people at risk of non-completion continue to be those from low socio-economic backgrounds who are leaving school early for part-time or casual work, then questions need to be raised about the effectiveness of the strategies that have been put in place in the past to support these students to stay at school. It may be that the SACE curriculum alone is not the answer for all students, and other forms of training or learning experiences need to be incorporated into it. The Social Inclusion Unit, formed in 2002 and responsible to the Office of the Premier and Cabinet of South Australia, has been given the brief to examine, report and recommend a plan of action for Cabinet and the wider community to increase full time equivalent school retention (Social Inclusion Unit, 2003). This is a major undertaking but, as the Executive Officer of DETE, recently commented, “options beyond the SACE system should be explored to encourage more students to finish secondary schooling” (“Options beyond,” 2002).

There is anecdotal evidence to support increased demand for alternative programs to support young people who are not wanting to stay in school, but who lack the basic English and ICT literacy, numeracy and self-skills necessary to enter the workforce (personal communication, V. Corfield, Mission Australia, October 10, 2002, P. Cronin, Christian Brothers College, November 27, 2002,). Research into the programs that best serve young people at risk has been undertaken by the Department of Training and Youth Affairs and reported in *Doing it well: Case studies of innovation and best practice in working with at risk young people* and report on the success of youth development programs known as “Pathway programs” for example, “The Grind”, “Wave” and “FAME”, operating in the south of Adelaide, which focus on encouraging transition to the labour market and encourage young people to enter the workforce. These tend not to recognise that the student may simply need time away from the school environment. These programs include self-esteem building activities, which develop other self-skills, and interpersonal skills designed to increase resilience. Students graduate from the Pathways programs better equipped to manage school but are rarely offered the option re-enter school (personal communication, J. Haskett, Southern Youth Exchange, August 7, 2002). As a result of this oversight and the lack of suitable school environments for these young people, they tend to not complete school and, while they may successfully enter the workforce, their career



and life opportunities are limited due to low educational attainment. In response to the increase in demand for alternatives to traditional day school, the Southern Hills Vocational College has recently opened, operating from the Mount Barker High campus and offering academic and vocational evening courses and a job pathway program similar to the FAME program for both continuing and re-entry students (personal communication, S. Smart, Mount Barker High School, November 27, 2002).

There appears to be a need for more re-entry programs that are flexible and address the needs of young people who have left school, are under-employed and who wish to finish school as described by DETYA (2001b), Education Victoria (1998), Mapstone (1999) and Pocock (1998). Students who leave school early tend not to want to stay connected with the “school” because of negative school experiences. Anecdotal evidence would suggest those who enter small Pathways programs tend to remain connected to these, even if they are conducted on the school campus (personal communication, V. Corfield, J. Haskett, M. Sanderson, November 27, 2002). Clearly, the small, individual-centred learning environment is preferable for students who are at risk of non-completion of school. In the recommendations of the *National Evaluation Report of the Full Service Schools Program, 1999 and 2000* (DETYA, 2001a) recommendations, it is stated that schools and class sizes need to be smaller, that there are separate school/campus for senior students, altered length or timing of the school day, more flexible timetable and more options for part-time study and return to study (p. 23). Currently, the DETE has adult re-entry Colleges scattered around the metropolitan area, but these are large and can be impersonal. The quality of the education programs is not the issue, rather it is the environment in which delivery is taking place. A variety of study modes with attention given to individual students, offering a wide range of SACE subjects so the needs of most students can be met, would appear to be the ideal structure.

## Implications of the Findings of This Study

### *Implications for Schools*

Students with English literacy and ICT skills, and who show independent learning characteristics can successfully complete the SACE units through the NLP. An important implication from the study’s findings is the need for pre-course testing of students’ skill levels in English literacy, basic ICT skills and self-skills. The

College already holds an entry assessment for English literacy, but a self-assessment rubric for determining the level of pre-course ICT skills, such as the Mankato Skills Framework (ACCE, 1999), and an assessment to determine self-skills is required if students are to be counselled appropriately. Pre-course testing would assist in determining the level of skill a student has, and the areas where a student requires skill development, allowing the teachers to give appropriate support before the student commences a subject. The students involved in the study were asked by me on entry into the NLP if they could use a computer, and their uniformly positive responses, despite variable ICT skills, indicated that this question alone was clearly too general. A criticism of the many self-assessment rubrics in circulation is that students conduct them themselves and so do not have to demonstrate their level of competence. A diagnostic assessment that adequately measures the student's ICT ability, through a short practical test, while time consuming, would be preferable. A decision regarding the learning mode most suited to the students' ability, goals and life circumstances can be made after these basic skills assessments. Options for skill development in English literacy or ICT also need to be made available to students so they can improve these essential skills should they wish to undertake studies online. Students with poor basic skills who left school early because they could not keep up with the class may consider returning if programs designed to improve basic skills are developed and made accessible online.

The role of the classroom teacher, as referred to by Oliver (1999) also needs to be rethought, particularly if ICT is to be integrated throughout the curriculum. ICT skills must be added to literacy and numeracy development as being the responsibility of all teachers. Teachers will need to be able to access training for their own ICT skill development and receive pedagogical guidance if they are to construct their own online curriculum. Learning how to set up a web page and construct hyperlinks are two examples of new skills most teachers will need to learn.

There is no doubt that the teacher is vital in the online environment, however the different teacher-student interactions call for a restructuring of the teachers' role. Teachers, in general, would become facilitators and guides in the learning process, but would still need to monitor and assess student learning. Teachers who enter the online environment will need to develop their self-skills in the same way as the students, particularly time management skills to allow regular correspondence with their students. Regular contact with students to avoid passivity, which has been

identified by Hiltz (1994) and Koufman-Frederick et al. (1999) as a potential problem for online learners, will need to be carefully monitored. With individual learning programs being possible in the online environment, the teacher would need to program time to spend with each of their students, discussing their learning needs, tailoring programs to suit, and allowing for different rates of progress for each student through their course. The increased flexibility and the removal of classroom behaviour expectations may assist the learning needs of students at risk of not completing school.

The notion of the normal school day, with students being placed in particular classroom lessons for the entire day is challenged by online learning. A change in thinking would be required of school administrators, as traditional school structures, such as timetables and face-to-face class contact time are no longer required. Problems with timetable clashes should become a thing of the past, because each student can select the subjects they want to learn, regardless of timetables and minimum class number constraints. The way space within a school is used, and the times during the day when a school is open, may also change. The students and teachers may not be required to be physically present in a classroom, thus opening the possibility of flexible work times and places, such as from home.

If online curriculum delivery is to become a widely available alternative for senior secondary students in South Australia, then government policy makers will need to make two significant changes to the current legislation to accommodate this. Firstly, students who may wish to study online but are under the compulsory school attendance age would need to be able to study from home and not be expected to be attend school every day, if at all. Secondly, current State Government funding mechanisms are based on the numbers of full time equivalent students studying on a school campus and do not include students who may be studying externally. Without a change in the funding arrangements, students in both state and non-government schools would need to pay for the full cost of the course resulting in serious equity considerations.

The shift in the construction of the roles of the teachers and students in the online environment, the move from face-to-face communication to CMC and the integration of ICT into the curriculum raise the issue of the quality of teachers' existing skills to write units and operate them, thus the content and structure of current and future teacher training need to be addressed.

### *Implications for Teacher Training*

The *Quality Teacher Program* initiated by the Commonwealth Government to address deficits in teacher skills, such as poor ICT skills, has and is currently providing the opportunity for many teachers to gain specific ICT skills (DEST, 2000). However, it is more likely that the Commonwealth Government will succeed in achieving one of its *National Goals for Schooling for the 21<sup>st</sup> Century* (DEST, 2000) if teachers' ongoing training is supported over a longer period of time than the 3 years of funding allocated for the Quality Teacher Program. Goal 1.6 of the National Goals states,

Schooling should develop fully the talents and capabilities of all students. In particular, when students leave school they should be confident, creative and productive users of new technologies, particularly information and communication technologies, and understand the impact of this technology on society. (DEST, 2000, p. 21)

Schools can only achieve this goal if the teachers are trained in the use of new technologies so they are comfortable with teaching skills to their students. If schools are to encourage teachers to integrate ICT effectively into their teaching programs and provide flexible learning opportunities to support students at risk, then the teachers must be supported not only to learn the ICT skills but also the pedagogical skills required to incorporate the application into their teaching programs and associated assessment. For example, the student cases supported the need for teachers to be explicit and clear in the language they use in task descriptions. This is important for all students, but particularly so if the student chooses to do all of their work away from the classroom.

In addition, teachers in the online environment must be able to change their teaching style to acknowledge the different student-teacher interactions that can occur when using ICT. At-risk students may feel more comfortable being away from the social tensions that can arise in the classroom, but teachers need to acknowledge their preference for an external option and maintain regular contact, even if by email.

Schools and schooling authorities need to be prepared to financially support the ongoing training of teachers if the next step of integrating ICT into teaching practice is to occur on a wider scale. This will require teachers to have a high level of

understanding of the limitations of ICT applications. ICT can be used positively to enhance student learning by assisting in building conceptual understanding and to improve presentation. But, if the teacher is encouraging students to use ICT to present assessment tasks, then the teacher must give advice to the students about which application may or may not be appropriate to present evidence they have met the required learning outcomes. A clear marking scheme is essential, defining the marks for presentation and content, to avoid the student becoming immersed in demonstrating their competence in using the ICT application, rather than their understanding of the topic.

For pre-service teacher training, the implications are that development of ICT skills be given equivalent importance to the development of English literacy and numeracy. This requires modelling ICT use and instruction in ways to integrate ICT into teaching practice by university lecturers and the supervising teacher in the teaching practical. Providing mentors for new teachers in their first few years in the workforce would also help to support them while they develop the skills required to deliver the curriculum in a range of modes.

For in-service support, there needs to be a program of professional development for teachers in each school with “expert” teachers providing assistance and demonstrations of how to use ICT skills effectively. The Quality Teacher Program is currently providing opportunities for some teachers to learn new skills, but if the change to a more ICT rich curriculum is to occur, the training of teachers must be sustained, with government and schooling authorities supporting on-going teacher training.

#### *Implications for Further Research*

In this study, students used the NLP to gain access to a small range of subjects and were able to maintain face-to-face contact with teachers and other students if they wished. With the current push from government, as stated in the National Goals for Schooling to increase the use of ICT in schools, two areas of research should be investigated to further explore the general impact of online learning on school-age students. The first question should investigate whether young people’s social development is impaired when they access the curriculum wholly online. It may be that the benefits of online learning in terms of increasing access are outweighed by the possible negative impacts of isolation and a lack of personal contact. While there has

been some research into academic performance differences in traditional and online learning environments in the tertiary setting, little research has occurred in the secondary school setting. The second question should investigate whether and how online learning can enhance student learning outcomes. One traditional approach would require two sets of like students to study the same content, but under online or in-class conditions, and compare the learning outcomes in terms of specific criteria. A mix of research approaches is needed to obtain a complete picture of how learning may be affected. The findings of this study suggest that both student and teacher factors need to be considered.

Young people attempting to complete school in the late 1990's and early 2000's are different in many ways to their parents' generation. The youth of today have access to communication forms unheard of in the 1960's and 70's. The range of ICT available, such as mobile phones with associated text message facilities, has allowed communication between people to occur any time, anywhere and faster than before. E-mail has removed the need for telephone and fax communication, with the advantage of being asynchronous, thus allowing people to manage their "conversations" regardless of time differences and personal schedules. It also allows one message to be sent to many people, reducing the time required for information exchange. Chat lines and rooms enable groups of people to "talk" to each other in real time from anywhere in the world, allowing for friendships to be established with no face-to-face communication. The Internet provides access to so much information that a person can search for most topics and expect a return suggesting a wide range of possible sites to find information. These examples of changes in communication suggest that the traditional teaching mode of face-to-face may not be suitable for young people who are immersed in a way of communicating that is very different to that used by their parents and who may find the social constructs of the classroom difficult to manage. Other forms of curriculum delivery which use these facilities, such as online learning, need to be more readily available to all students to allow for individual preference.

In terms of students at risk, much of the literature and some of the cases from this study indicate that problems arising with face-to-face classroom contact are one of the main barriers for certain students to overcome. Poor teacher-student relationships promote negative behaviour in some students, leading to various forms of disciplinary action in schools, such as suspension, and even expulsion. Students

who have negative peer relationships may be punished in the same way, leading to isolation from other students, and eventually disconnecting themselves from school altogether.

If schools are to remain places where students learn, with teachers responsible for directing what and how learning occurs, then a range of learning environments need to be available to provide choices for a heterogeneous group of young people. Schools need to explore ways they can adapt their curriculum delivery so students can switch between different modes of learning if they find themselves in a position where they cannot continue in day face-to-face classes at their school. The importance of positive student-teacher relationships in improving student learning outcomes has been established in the literature and would support the notion that students may prefer to stay connected with a particular school and change their learning mode, rather than having to “move” to another site that offers flexible learning opportunities.

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South Australian Certificate of Education: Student fact sheet 1

**(Co-ordinator, ADT Program, Curtin University of Technology, 27/04/04)**



APPENDIX B  
CONSENT FORM

Consent to release personal information for research

The purpose of this consent form is to notify the participants of the need to gather accurate personal data for the project below:

Research towards the thesis component of a Doctorate of Science Education to be completed by Bronte Nicholls.

The broad aim of the study is:

- to evaluate the effectiveness of NetLearning as a way of increasing access to the SACE for students at risk of non-completion of school.

The data collected will be used to support Doctoral research which will be centred on student learning and student needs analysis.

*Need for research*

The uses to which technology can be employed in schooling is an area which requires careful analysis as we enter the new millennium. Just as important is the need to assess the needs of individual students' learning needs. For one reason or another, some students find it difficult to participate in the mainstream classroom situation. These students have diminished access to the curriculum and hence are more likely to not complete post-compulsory schooling, or, in South Australia, the SACE.

*Participants*

The major groups of people involved in the provision of raw data will be the student participants, student researcher(s) who will conduct a confidential interview with each student, teachers within the school and invited participants and participating students' parents. The Principal is the researcher and a College Board member is the Webmaster.

Because this project's success relies on collaboration between all participants, all personal information and comments given in data collection will be treated as confidential, and when released in reports, will be under pseudonyms. Participants may withhold any or all information and may withdraw from the study at any time without prejudice.

*Data management*

Participants will be informed during the study period of comments or written work that may be included in the study. Journals, interview transcripts and any other written pieces will remain in secure storage in the strong room on the College property during the period of the research. Only the researcher will have access to the data.

After each data gathering exercise, participants will be able to assess the quality of their data to ensure the most accurate information is gathered. The data will be available for individual scrutiny so that the participants may withdraw sections or all of their comments at any stage of the research.

The student participants will be encouraged to complete all aspects of the data collection requested but will not be expected to do so as part of their SACE assessment. They may withdraw from the project or the SACE subject at any time without penalty.

It is important that all participants recognise the importance and significance of this study and the vital role they play in its success.

#### *Report presentation*

On completion of the research project, participants will be able to view the final draft to make comments where appropriate. A general acknowledgement to the staff and students will be made in the thesis.

Please complete and sign the release agreement below. You may ask the researcher, Bronte Nicholls, for clarification of any issue at any time during the study.

-----  
Permission to use personal information in research

I, \_\_\_\_\_ understand that my personal data will be used in the above mentioned research project, and my identity will be protected by the use of pseudonyms. I give permission for audio-taping of interviews. I also understand that I can withdraw any information and from the whole project at any time during the project without prejudice.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_

Parent signature \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_

Bronte Nicholls, on behalf of Muirden College.

## APPENDIX C

### INTERVIEW QUESTIONS FOR STUDENT-RESEARCHER INTERVIEWS WITH PHASE ONE PARTICIPANTS

Formulated by the Student-researcher and Researcher

Why are you at school?

What keeps you motivated?

Where are you in terms of getting your SACE?

Why do you think some people who obviously have the ability to succeed choose not to use their skills?

What are the advantages and disadvantages to studying using NetLearning rather than having to go to class?

Can you come to school and ask the teacher if you are unsure of something?

Do you think the teachers have changed the way have presented the subject or is it the same as before?

Do you see any benefits of being able to study like that?

How do you know you've done enough work to be successful?

Do you have any areas you are having difficulties with?

What other factors in your life make coming to school and doing work difficult?

Do you think the teachers are adapting their work well to the NetLearning format?

What do you think about the schooling system?

What do you think should be changed?

Do you think you should be able to help each other and work in groups?

Have you any other comments about NetLearning?

Do you think NetLearning may suit other students?