CHAPTER 1  SETTING THE SCENE

Introduction

This thesis reports a detailed study of the literacy learning of 19 adolescent students with mild and moderate intellectual disabilities in a secondary school. It investigates influences on literacy learning in the contexts of the unique nature of the learner, home and family factors and school issues.

In this study "literacy learning" is defined as the acquisition and development of skills in reading and writing used for the purpose of making meaning from print. The study investigates the students' literacy learning with particular emphasis on influences on literacy learning within the many contexts in which such students develop the skills of reading and writing. It is set within a naturalistic research paradigm where data were collected and analysed using qualitative methods including case studies, interviews, questionnaires, documentary evidence and participant observation.

A preliminary study at Edith Valley High School was undertaken over two school terms, where a trial of data collection and analysis methods was conducted with a group of mildly intellectually disabled secondary school students. At the main site, Payton High School, where methodology was influenced by the preliminary study, data from 19 case studies were collected over eighteen months and included observations, anecdotal records, artefacts, interviews and questionnaires.

An understanding of the setting, the students and the personal, social and academic factors which influenced each student's literacy learning was developed through the case studies. Students between 12 and 16 years of age in special classes at Payton High School were included. The IM class (for mildly intellectually disabled students) consisted of five boys and five girls and the IO class (for students with moderate intellectual disabilities) consisted of nine students, all of whom were male.
The results of the study show three main areas of influence on literacy learning. They are the unique nature of the learner, home and family factors and school issues. The significance of the study lies in highlighting how these influences and the conclusions about policy and practice drawn from them can enhance the literacy learning of intellectually disabled adolescents.

This chapter presents an overview of the context in which the study was set. It outlines the nature of the two sites which were used and the Special Education setting within which the case study participants were schooled. The implications of the study and the structure of the thesis are briefly outlined.

1.1 Rationale for the study

In today's society, 3-4% of the population have an intellectual disability. Our culture relies heavily on competence in reading and writing in our daily business, our personal interactions, our methods of communication through media and teaching and learning within our educational institutions. In our society, literacy is expected and assumed. Independence in learning and in living, as well as key outcomes of schooling, can be achieved through the ability to communicate effectively and to understand the written word. Students with mild and moderate intellectual disabilities experience difficulties in these areas and are disadvantaged within our educational system and in their social interactions. One of the aims of Special Educators is to prepare students with intellectual disabilities for fulfilling and useful lives as contributing members of our society.

The process of learning literacy naturally is outlined by Cambourne (1988) and refers to learning to understand and use verbal and written language within the contexts of real life situations, where language is used to achieve some social purpose. Goodman (1986) outlines a number of principles for reading and writing which underpin a "whole language" philosophy. These include the notion that readers construct meaning during reading and select, confirm and self correct as they seek to make sense of print. Writers and readers can be strongly limited by what they already do or don't know, writers in composing; readers in comprehending (Goodman, 1986).
This study is designed to focus on what influences literacy learning, to identify how the literacy learning of students with mild and moderate intellectual disabilities can develop effectively and the contexts which lead to durable literacy learning. It recognises the crucial role played by the environments of school and home in this process and how the personal characteristics of the students themselves intervene. A study of this kind provides valuable insights into the nature of literacy learning in the Special Educational field of teaching students with mild and moderate intellectual disabilities. The exploration of the influences on their learning and how they acquire literacy provides valuable information which can assist teachers to maximise improvements in their literacy learning.

This study adds a new dimension to research in the field of literacy and intellectual disability. As shown through a thorough search of the ERIC, Australian Education Index, Education Complete and psycINFO databases, there has been little research which links literacy and learning for students classified as IM and IO. Although research has been fairly extensive in each of the general areas of literacy learning and Special Education, there is little to be found which focuses on literacy learning in Special Education.

For a number of years, there has been a need for research of this type to inform teaching and the development of curriculum resources in the area. The conclusions reached in this study will assist classroom teachers, special educators, teacher educators, parents and policy makers to understand the literacy learning of mildly and moderately intellectually disabled students and to develop appropriate learning environments and teaching strategies for natural, effective and durable literacy learning for these students. As well, the study aims to contribute to theory and future research directions in this area.

1.2 Background

This study utilises two sites; a preliminary site where data collection and analysis methods were trialed and a main site in which information about students was compiled to form detailed case studies.
1.2.1 Conceptual locus

The main fields of investigation in this study are Special Education, literacy learning and intellectual disabilities. Definitions of these terms provide a conceptual framework useful in developing an understanding of its aims, findings and recommendations. Special Education, for the purposes of the 19 case studies presented, refers to the field of school education where individual programs are specifically designed to meet the students' needs. Although some of the students in the study also displayed other medical or physical problems, intellectual disability was the identifying criterion for entry into the special classes.

A common assumption is that basic literacy includes a level of reading and writing abilities which enable a person to participate fully in society. For the purposes of this study, "literacy" is defined as the ability to make meaning using language through speech, reading and writing; a broad definition which can be applied to all student participants across a range of settings. Intellectual disability has been used in this study to describe students who have significantly lower than average IQ, as measured by the Weschler Intelligence Scale for Children - Revised and are experiencing learning difficulties to such an extent that mainstream classplacement is not the optimum learning situation.

1.2.2 Preliminary phase: Edith Valley High School

The decision to undertake this research was made while I was teaching at Edith Valley High School before transferring to Payton High School. This presented an opportunity to test some of the ideas about data collection and analysis that I had formulated for use at Payton, the main site of this study. The purpose of this preliminary phase was to conduct a trial of the data collection methods I wanted to use in the main study and test some of the methods of analysis. I trialed these methods for the following reasons:
1. to find out if they were physically manageable within the constraints of the classroom and my professional responsibilities
2. to determine if they yielded the kinds of data which were appropriate to this study
3. to streamline the ways in which I undertook the data collection and conducted the data analysis to maximise their efficiency.

Edith Valley High School, in the south-western outskirts of Sydney, was first opened in the early 1980s due to residential growth in the area. The school had approximately 900 students, with average size classes through Years 7-10, and smaller groups in the senior years. Many of the students were of non English speaking backgrounds, the largest proportions being of Asian, Lebanese and Torres Strait Islander descent.

I came to Edith Valley High School as Support Teacher (Learning Difficulties) where I became involved with the Support Unit, the faculty which oversees all Special Education within the school, also referred to as the Student Support Faculty. This unit included two classes for students with mild intellectual disabilities and one class for students with moderate intellectual disabilities. The teacher of students for whom English was a second language and the Support Teacher (Learning Difficulties) who supported students experiencing learning difficulties across the school were also part of the Student Support Faculty.

After being at the school for two years, I became Head Teacher Student Support and the classroom teacher of the Senior IM class, which consisted of students from Year 8 to Year 11. They participated in the preliminary phase of the study as the group which was used to inform and refine research questions and methodology. This procedure was used to conduct a trial of and subsequently select the most appropriate methods for data collection, organisation, retrieval and analysis for the main phase of the study.
Over a period of two school terms data related to the literacy learning of students in the Senior IM class at Edith Valley High School were collected. This led to the identification of a focus for the research and allowed me to develop and refine my research questions. In this phase, I trialed the use of anecdotal records and analysis of writing samples, and began to gain some idea of other agencies with an interest in the learning of the students and the possibility of influences on literacy learning from outside the classroom. I gained some experience in participant observation and became practically familiar with case study research.

1.2.3 Main phase: Payton High School

After four years at Edith Valley, I moved to Payton High School, the main site of the study, where I took up the position of classroom teacher of the IO class. The students in this class and in the IM class were the main participants in the study. Their literacy learning was explored over a period of 18 months.

Payton High School drew students from a large geographical area. It is set within the semi-rural town of Payton, with a variety of residences ranging from town dwellings to large farms. The socio-economic status of the residents of the Payton area was also widely varied, ranging from welfare-dependent families to large landowners and independent businesses.

Prior to 1958, the Payton community was served by a Central School catering for five to 18 year old students located on the site of the present Payton Public School. In 1958, the high school was opened in response to rapid population growth which established the need to expand from the Central School to a single secondary school on a separate site. The high school began with a population of less than 300 which has grown to over 1000 students, with over 95% being of Anglo-Saxon background and primarily English-speaking.
The school was a mixture of new and older buildings, the latter often repainted, but in need of substantial repair. The walkways were of asphalt, also in need of repair due to the damage caused by tree roots. There were several established, mostly deciduous, trees in the playground, which provided an attractive setting with ample shade in the summer. The classrooms were relatively large, unlike those in schools built at a later date, and mostly carpeted and heated.

The classrooms in which the IM and IO students spent most of their time were centrally located in the school and large enough to accommodate 30 students. Each student had his/her own desk, plus one spare for belongings and the walls and shelves were lined with resources and students' work. The rooms were also equipped with basic audio/visual equipment. Staffrooms were small in terms of space per member of staff, but material resources such as books, pictures, charts, audiotaaped stories and craft materials were plentiful, if old, having been collected over a number of years.

The executive staff included a Principal, Leading Teacher, Deputy Principal and seven Head Teachers of specific subjects. There were also two specialist Head Teachers in the areas of Curriculum and Welfare, the latter also taking the role as Head Teacher of the Special Education Unit, which did not qualify for its own Head Teacher until three support classes were formed, requiring the addition of a second IM or IO class.

1.2.4 Special Education at Payton High School

The first IO class for students with moderate intellectual disabilities was opened in 1984, as the number of such students in the immediate area grew. Three years later, the first IM class began with approximately 13 students. This occurred when a number of parents of IM children in the Payton area applied pressure on the school and the Department of School Education to establish a local class because there was a significant number of students being taxied some distance to another school with an IM class.
Both classes were originally housed in demountable classrooms in a relatively remote part of the school. In 1993, after much argument and persuasion, the Special Education teachers convinced the executive staff that the students needed to have a permanent home room in the main section of buildings in order to facilitate fully their successful integration as special classes into the school as a whole, resulting in movement of the classes to central rooms in a main building.

When the period of data collection for this study began, one IO and one IM class were in operation, with both teachers having Special Education qualifications and a full-time teacher's aide between them. The IM class consisted of eight boys and five girls in that year and seven boys and seven girls in the year following. The maximum number of students allowed in such a class was 18. The IO class had only three students, all male in the first year rising to a total of eight in the second, including one female.

Both rooms allocated to the special classes were used exclusively by those classes and their teachers. As well as undertaking core subjects with the trained Special Education teachers, both IM and IO classes took lessons within other specialist areas of the school. These subjects, which varied from year to year depending on the timetable, included Design and Technology, Art, Science, Physical Education and Social Science.

1.3 Participants

1.3.1 Students

The 19 students in the IM and IO classes at Payton High School were the central participants in this study. They ranged from Year 7 to Year 10, both male and female and came from a variety of home and family circumstances. Chapter 4 provides a brief description of each student and a summary of their literacy development. Complete literacy profiles are available on CD in Appendix A.
1.3.2 My role as teacher and researcher

In my ten year career as a teacher with the Department of School Education I spent seven years in teaching students with mild and moderate intellectual disabilities in roles including Support Teacher (Learning Difficulties), Head Teacher Student Support, classroom teacher of IM and IO classes and teacher within a Special School for state wards with emotional disturbances and/or behavioural disorders.

After my original training in Primary Education I undertook a short course to qualify me for teaching core areas (English, Maths, Social Science) in secondary schools. I then studied a Graduate Diploma in Resource Teaching, focusing on learning difficulties, and a Masters Degree in Literacy and Special Education. The present study grew from my desire to combine literacy with Special Education. In my Masters degree I studied literacy and Special Education as separate subjects and found that the specific study of literacy learning in Special Education was of particular interest to me.

My roles as both classroom teacher and researcher were particularly appropriate to the study as many rich research opportunities became available to me. I was able to spend a prolonged period of time with a group of manageable size and had the opportunity to investigate all aspects of their literacy learning through classroom teaching, contact with families and other data sources. I could provide the situational verification that educational theory demands and that case study research requires of practice. Because the study was so closely linked to my daily professional life, the motivation to maintain the momentum of its progress was high.

My direct involvement not only with the students in special classes but also with the school as a whole allowed me to become fully immersed in the situation and hence particularly responsive to incidents within the class and the school which were relevant to the data being collected. It also gave me a sense of situational reality useful for fieldwork and interpreting my findings.
My constant daily presence in the classroom and my familiarity with many aspects of the students' lives allowed me to collect valid information on the students' past and present development. I was able to contact these students' past teachers with relative ease, some of whom I knew professionally and had access to already and with parental permission viewed student files containing school and medical reports of value to the study.

1.3.3 The Teacher's Aide

In the Special Education classrooms at Payton High School, the teacher's aide played a major role in all aspects of the learning situation and thus provided valuable information on the development of the students' literacy skills. She was very familiar with the pattern of daily activities and worked with the children very closely, both individually and in groups.

The role of the teacher's aide in the Special Education Unit included (a) assisting individual students with classwork; (b) pastoral care of students; (c) attending to the physical needs of the students where required; (d) administrative work such as record-keeping, photocopying, purchase of stationery; and (e) assistance in the preparation of lesson materials.

The teacher's aide was very involved with all aspects of the students' learning, particularly the development of basic skills in literacy and numeracy. Although no formal qualifications were required, a teacher's aide must be well-organised and able to deal with disabled children with empathy and patience. She worked closely with individuals on their daily literacy activities and hence was able to make close observations of relevance to the study, such as the students' verbal participation in lessons, their attention to tasks, the processes they used to gain meaning from text and the development of their writing skills.
1.3.4 Parents

The parents of the students in special classes at Payton High School differed as much as their children did. Within the 19 families of students studied there was a range of ages, family groupings, socio-economic status, employment and housing. They did not all live locally, as not every local high school had appropriate special classes. Some had a history of intellectual disability in the family and some of the parents themselves were intellectually disabled.

Parent involvement with the school was already high when I arrived at Payton. Parents were generally willing to participate through questionnaires while some were also willing to attend the school for participation in lessons and personal interviews. As the study progressed and I became more familiar with the students, my understanding of the families and the nature of the home lives of the students grew immensely. I was then able to add this information to the growing bank of knowledge about the general development of the students and their learning environments at home.

1.3.5 Past and present teachers

Past teachers of my students were contacted where possible and asked to contribute information on such aspects as students' personality traits, academic progress, social competence and classroom and playground behaviour. Teachers also contributed with information on their philosophies of literacy learning and the teaching strategies and learning activities undertaken in their classrooms.

This information was valuable as it provided insights into the types of teaching and learning experiences undertaken by the students and the ways in which they responded. One of the difficulties of this method of data collection was that I was relying on the personal reflections of teachers who had some of the children a number of years previously, so the reliability of their memories had to be taken into consideration when using this information. To check the reliability of this source of information, parents were interviewed and school records were collected.
There was also the issue of "teacher speak" in their reports which tended to hide important detail about students' progress at school. Some phrases such as "slow progress" or "achieving well" were so generalised as to have different meanings for different people or in different contexts and so the reader had to interpret these as best she could in terms of the overall context of the report and other data sources.

1.3.6 Significant others

Some of the significant others involved in the study included peers, members of extended families, family friends, counsellors and medical professionals. Information gained from them was through questionnaires, interviews and written reports. Their identities were established on an individual basis through student and parent interviews and day-to-day school activities. This group was able to add substantial input into the study as one of the research questions deals with the effects on students' learning of the responses they received from those around them.

1.4 Implications of the study

This study has implications for the literacy learning of intellectually disabled adolescents in terms of (a) the holistic nature of the learner, (b) early identification of disability and subsequent intervention, (c) tailoring class placement, (d) optimum learning environment, (e) professional development, (f) bridging the gaps between home and school, (g) providing support for parents, (h) positive relationships with parents and professional agencies.

These categories represent the areas where this study will have a significant impact on the ways adolescents with mild and moderate intellectual disabilities are educated. It has implications for the development of appropriate teaching practices in special classes in secondary, primary and special schools and associated policy development in Special Education.
The central themes of the study of the unique nature of the learner, home and family factors and school issues are explored in detail and define its potential impact on educational beliefs and practice. My dual roles as classroom teacher in Special Education and educational researcher have important implications for the value of the study as a whole. It was a unique situation where I could study, first hand, the literacy learning of intellectually disabled students across a range of learning situations.

1.5 Ethical issues

The main ethical issues addressed in this study were assuring the privacy of the participants, protecting their integrity, guarding confidentiality and maintaining the anonymity of the schools. In the study I used pseudonyms for the schools, students and the people about whom I wrote. The families of the students were aware of my study and gave written permission for it to take place. They were also offered open access to any printed material related to their child. In discussing particular family issues which were relevant to the literacy learning of the students, I often described home and family situations in detail. However, these were done from an objective perspective and did not breach family privacy.

Medical records, school records, counsellors' reports, formal test results and the like were available to me with the parents' knowledge and permission and were similarly kept anonymous in my presentation. As stated, both schools in the study were referred to by pseudonyms and their geographical locations were not described in detail. The study was undertaken with the full knowledge and written permission of the Principals of both schools and the Department of School Education in New South Wales also gave written permission. The Ethics Committee of the University of Western Sydney approved the study and the measures I had taken to protect the identity and integrity of the participants.
1.6 Structure of the thesis

The literature review for this study addresses current research in intellectual disability and literacy learning. Three identified influences on literacy learning were the unique nature of the learner, home and family factors and school issues. Methodology included a case study approach to grounded theory from the viewpoint of teacher as researcher using participant observation. This is outlined in a discussion of the theoretical background to the study and a description of the data collection and analysis processes.

From the case studies, literacy profiles for each student were developed. A summary of the influences on literacy learning for each student is presented in Chapter 4, with complete literacy profiles available on CD in Appendix A. Chapters 5 - 7 are organised under the themes of the unique nature of the learner, home and family factors and school issues. The conclusions and recommendations of the study are presented in Chapter 8 which details the implications for the literacy learning of students with mild and moderate intellectual disabilities and makes recommendations for educational policy and practice.

1.7 Research questions

When this study was first proposed, I based the research questions on Cambourne's "conditions of literacy learning" (Cambourne, 1988) as these encompassed my beliefs about the development of durable literacy learning and played a major part in my daily teaching and hence in the exploration of the learning of my students. These conditions consisted of immersion, demonstration, engagement, expectations, responsibility, approximation, use and response (Cambourne, 1988, Ch. 5 p 45-75) and were directed to all readers across a range of abilities.
The original set of research questions focussed on immersion in and engagement with print, demonstrations of literacy skills, approximations to language conventions, the responsibility that students took for their own learning and the effects of responses and expectations of people significant to the students' learning processes. Having spent two terms collecting and analysing data at Edith Valley, I found that there were other aspects of literacy learning that were also vital to the development of skills and knowledge in intellectually disabled learners that lay outside these general criteria for learning. In addition, some ideas within these original questions were not as important for students with intellectual disabilities.

From the data collected in the ensuing stage of the study, it became clear that the contexts in which learning took place were critical issues in literacy development for intellectually disabled students and needed further investigation. The same was true of the effects that the literacy environment at home had on the students' learning as well as the cognitive, social and emotional natures of the students themselves. The research questions were devised to provide a framework within which the nature of literacy learning and the influences on it could be investigated. They encompass examination of data relating to early learning and follow it through to the students' learning situations at the time of this study, while remaining broad enough to allow the impact of a range of contexts and influences to be identified.

1. How does the unique nature of the mildly and moderately intellectually disabled student affect literacy learning?

2. What is the role of the home and family in supporting literacy learning?

3. What is the relationship between the school context and the students' literacy learning?

4. What factors contribute to successful literacy learning for students with mild and moderate intellectual disabilities?
CHAPTER 2  LITERATURE REVIEW

Introduction

The fields of literacy learning and intellectual disabilities are very broad and there has been considerable research into both areas. This literature review attempts to bring these two fields of knowledge together to discuss how students with mild and moderate intellectual disabilities develop literacy. Research in the areas of intellectual disability and literacy learning are linked through an exploration of the unique nature of the disabled learner, home and family factors which influence literacy and the impact of school issues on literacy development. In exploring this topic, the following diagram maps how the literature connects these two fields, illustrates the factors found relevant in the literature and serve as organisers for this chapters.

Mild and moderate intellectual disability  
\hspace{1cm} \downarrow \hspace{1cm} \text{Literature Review} \hspace{1cm} \downarrow \hspace{1cm} \text{Literacy learning}

\hspace{1cm} \downarrow \hspace{1cm} \text{Unique nature of learner} \hspace{1cm} \downarrow \hspace{1cm} \text{Home and family factors} \hspace{1cm} \downarrow \hspace{1cm} \text{School issues} \hspace{1cm} \downarrow \hspace{1cm} \text{Conclusion}

Figure 2.1: Path of the literature review
2.1 The unique nature of the learner

Van Kraayenoord, et al (2000, p 219) stated that "students (with intellectual disabilities) will show as much, if not more, variation in their patterns of learning as non-disabled children." They also maintain that there is a great range in the levels of support required by such students and that "teaching approaches which are successfully used by teachers of students with intellectual disabilities recognise the different learning needs of these students" (p 219).

Although students with intellectual disabilities demonstrate some commonalities in the nature of their disabilities, their approaches to work and their learning patterns, each child is unique with his/her own manifestations of the disability, different cognitive processes, different ways of dealing with social interactions and different emotional reactions to the world around them. This section explores the nature of the unique individual through the characteristics and causes of intellectual disabilities and cognitive, social and emotional development.

2.1.1 Characteristics and causes of intellectual disability

The American Association of Mental Retardation (Langone, in McLaughlin and Wehman, 1996, p 113 - 114) defines intellectual disability (or mental retardation) as:

significantly subaverage general intellectual functioning existing concurrently with related limitations in two or more of the following applicable adaptive skills areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure and work.

Greenspan (1999, p 6) states that intellectual disability refers to "someone with an obvious and severe condition caused by an organic syndrome or malformation. But most cases ... are in the mild range, lack obvious physical signs, and do not have a known etiology."
For the purposes of this study, the term "intellectual disability" will refer to those people who fall into the categories of mild and moderate intellectual disability, as described in Figure 2.2. The third category, severe intellectual disability, is not relevant to the students being investigated.

A characteristic is a distinguishing feature or quality, but in the case of intellectual disability, no single characteristic alone is distinguishing. Intellectually disabled students tend to have distinctive characteristics, with the following three particularly common:

1. significant limitations in general intellectual functioning
2. significant limitations in adaptive functioning, which exist concurrently
3. onset of intellectual and adaptive limitations before the age of 22 years.
(Greenspan, 1999, p 12).

In NSW schools, criteria for entry into special classes includes educational and academic difficulties, which are usually the main reason for referral, and an appropriate score on the Weschler Intelligence Scale for Children - Revised. Students with mild intellectual disability have scores falling between 60 and 80, while those with moderate intellectual disability have scores which fall between approximately 30 and 60.

Other characteristics often observed include co-ordination problems, low frustration tolerance, poor self concept, short attention span, poor general language ability, below-average ability to generalise and conceptualise and play interests below those of age peers. These characteristics are overlapping and interrelated.

Kirk and Gallagher (1989, p 136) compared the characteristics of mild and moderate intellectual disability as follows:
<table>
<thead>
<tr>
<th></th>
<th>Mild</th>
<th>Moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Etiology</strong></td>
<td>Often a combination of unfavourable environmental conditions together with neurological, genetic, and/or metabolic factors.</td>
<td>A wide variety of glandular, neurological or metabolic defects.</td>
</tr>
<tr>
<td><strong>Prevalence</strong></td>
<td>About 10 in every 1 000</td>
<td>About 3 in every 10 000.</td>
</tr>
<tr>
<td><strong>School expectation</strong></td>
<td>Will have difficulty in usual school program; needs special adaptation for appropriate education.</td>
<td>Need major adaptation in educational programs; focus on self-care or social skills; should learn basic academic and vocational skills.</td>
</tr>
<tr>
<td><strong>Adult expectation</strong></td>
<td>With special education can make productive adjustment at an unskilled or semi-skilled level.</td>
<td>Can make social economic adaptation in a sheltered workshop or in a routine job under supervision.</td>
</tr>
</tbody>
</table>

**Figure 2.2: Characteristics of intellectual disability**

Ten of the students in this study fell into the category of mild intellectual disability, while nine were moderately disabled. Within each group was a wide variety of strengths and weaknesses across all areas and it was not uncommon for students to change from one special class to the other at any time, depending on their educational needs in certain curriculum areas.
Up to 80% of intellectually disabilities have no known organic cause. It is possible for one major factor, either an intrinsic factor within the child or an extrinsic factor in the child's environment, to be predominantly responsible for learning difficulties, but in most cases it is the result of complex inter-reactions amongst a number of factors. (National Health and Medical Research Council, 1990).

Other factors that may contribute to intellectual disability include (a) hereditary factors, (b) chromosomal abnormalities, (c) gestational disorders, (d) psychiatric disorders, (e) gross brain disease, (f) trauma or physical agents, (g) metabolism or nutrition, (h) little or no pre-natal and post-natal health care, (i) environmental influences, such as infection, intoxication and pollution, and (j) lack of environmental stimulation. (Kirk and Gallagher, 1989; McLaughlin and Wehman, 1996).

Greenspan (1999) identified the two main criteria of intellectual disability as limitations in intellectual and adaptive functioning. In the next two sections, the areas of cognitive development of intellectually disabled students and the social and emotional influences on learning will be explored.

2.1.2 Cognitive development

Cognition is concerned with knowledge, consciousness, intelligence, thought, imagination, memory and any activity that involves these functions. Cognition involves attending to and interpreting what we perceive in our environment and the use of language and other symbols to represent concepts. (Annison et al, 1996, p 116).

Annison et al (1996) propose that people with moderate intellectual disabilities have levels of cognitive functioning which will probably reach Piaget's stage of operational thought, but will remain unable to see another's point of view and will be limited in their ability to reason logically. Mildly disabled people are less limited in their cognitive functioning, but are likely to remain at a concrete level of thinking (Annison et al, 1996).
According to van Kraayenoord, et al (2000, p 202), "students with intellectual disability vary in their cognitive functioning, and this leads to variations in their capacity to learn and the ease with which they learn." Erez and Peled (2001, p 83) found that children and young adults with mild and moderate intellectual disabilities are usually able to perform simple cognitive tasks, but experience difficulty in making connections and show relatively little evidence of metacognitive behaviour.

There are several influences on the cognitive processes of these students, including the disability itself, medical considerations, concentration and memory, logical thought and language processing. Van Kraayenoord, et al (2000, p 203) stated that the learning of students with intellectual disabilities may be affected by medical conditions which may occur concurrently with the disability. Numminen, et al (2000, p 579), stated that "the working memory of people with intellectual disability has been found to generally lag behind their mental age." Their study of memory as an academic skill included reading and writing, indicating that memory skills play a significant role in literacy learning.

Fletcher and Roberts (1998, in van Kraayenoord et al, 2000, p 202) stated that "teachers and parents report that students with intellectual disability ... show poor maintenance of new skills and knowledge over time, are slower to learn new material, and fail to generalise what they have learned to novel situations."

These cognitive limitations may be one of the causes of delayed speech development, which is often the first indicator of some intellectual difficulty. Lack of speech limits social interaction and can also affect the child's ability to solve problems as he/she cannot think problems through using words. Delays or deficits in speech development directly affect the progress of further literacy learning. (Gath, 1993).
2.1.3 Social and emotional influences

Social development involves learning to relate successfully to a variety of people, in a variety of places and through a variety of activities. It involves learning about the business of everyday living: how to care for oneself and one's immediate environment (Annison et al. 1996, p 41).

Social skills enable people to participate in the community, integrating both physically and socially (Annison et al., 1996). Without these skills, it is very difficult to operate successfully in our society, which in turn must affect the way we use language to interact with people in it. Children and adolescents with intellectual disabilities can find social interactions very challenging (McNamara and McNamara, 1995). Simple interactions such as maintaining a conversation or working beside someone can be difficult. Often these skills cannot be learned incidentally as they generally are by non-disabled people, but must be taught with the same intensity as academic skills. McNamara and McNamara, (1995, p 135), state that:

many professionals believe that the lack of interpersonal skills in learning disabled students may be more devastating over time than academic deficiencies.

Children with intellectual disabilities often find it difficult to make and maintain friendships. They tend to be less popular than their non-disabled peers and are more likely to be rejected socially. They are less frequently involved in non-academic interactions with teachers and are more often ignored by peers and teachers (Ashman & Elkins, 1998).

Ashman and Elkins (1998) cite a study in 1994 (Hay, Ashman & van Kraayenoord) which supports the idea that social and emotional problems are factors associated with learning difficulties, rather than contributing to them. That is, students with learning difficulties often experience problems of this kind as a result of their lack of cognitive ability, rather than the social and emotional problems being a direct cause of learning difficulties.
To become a competent language user requires assertiveness, risk-taking, independence and skills of interaction. These are all attributes of self and, when present, contribute to a sense of personal competence. Thus, an understanding of self concept and language success is pivotal for the researcher (Bricklin, 1991). Studies in the area of academic self concept have shown that children with learning difficulties have significantly lower academic self concepts than their normally achieving peers, which persist over time (Ashman & Elkins, 1998, p 146).

Measurement of the self concepts of children provides important information about the nature of the child with which teachers can better understand their students. Because children with mild and moderate intellectual disabilities must contend with academic failure, their self concepts are particularly at risk. Many students with mild and moderate intellectual disabilities have relatively low self concepts as a result of a series of academic failures during their early years of schooling. Several studies (cited in Heyman, 1990) employing a number of measures have shown that youngsters with intellectual disabilities have lower self esteem than their non-disabled peers.

Students with mild and moderate intellectual disabilities are also particularly prone to emotional instability and many lack the ability to control their emotional reactions to the world around them. Anxiety is common in students with mild and moderate intellectual disabilities especially when they are presented with tasks they find difficult (Meek, 1991). This may manifest itself in behaviour problems, withdrawal or refusal to take the risks necessary for successful learning. The reactions of significant people such as family members, teachers and those with whom students interact in the community also impact on their emotional stability.

People who are well-meaning but misinformed may have sought to overprotect people with disabilities by denying them the degree of risk-taking necessary to acquire new skills and knowledge. As a consequence, people with disabilities may have become dependent and fearful of the challenges of life (Annison, et al. 1996, p 42).
Many people underestimate the potential abilities of disabled people and hold lower expectations than are necessary. This cycle reinforces the perception, by both the disabled person and those with whom he/she interacts, that they cannot cope with risks and failure and hence choose not to try. (Annison, et al, 1996).

2.2 Home and family factors

Home and family factors play an important role in the literacy learning of students with mild and moderate intellectual disabilities. Issues which were raised in the literature include a) the complexity of influences on learning; b) the impact of the family as part of the child's social structure; c) the role of the child within the family; d) early literacy experiences at home; e) the structure of the family; and f) the roles of parents and siblings.

Beach (1995) undertook a study which examined a program for the development of literacy skills among low achieving kindergarten students. She reported:

Analysis of probable cause data revealed that a lack of skill development among low achieving kindergarten students may be related to dysfunctional families, poverty, poor health, English as a second language, poor parenting skills, poor alternative childcare and inadequate funding for education (Beach, 1995, p (i)).

Notari-Syverson (1996) and Weinberger (1996) supported this view in their statements:

For children with disabilities, improvement (through a comprehensive early literacy program) was found particularly in letter knowledge and early print concepts such as book handling and differentiating print from pictures. (Notari-Syverson, 1996, p 14).
Studies of early home literacy, home-school links and school reading achievements are critical for an understanding of children's early literacy learning (Weinberger, 1996, p 15).

Ashman and Elkins (1998) outline some of the major impacts of a disabled child on the family. These include (a) grief process for the child who was expected, possibly leading to despair, apathy or hopelessness; (b) changes in family roles; (c) increased stress; (d) major changes in the living situation, possible need for relocation; (e) possible employment changes; and (f) social isolation.

The child him/herself is, of course, part of the family to which these changes occur, and is as affected, if not more so, than the rest of the family. In order to act effectively in the field of intellectual disabilities, it is necessary to view the child within the context of the family. A family that is likely to function well will have emotional support and help from extended family, friends and community. Financial stability and limited family stress are also major contributors to family stability, as is the ability to understand and cope with the disability of the child (Kurtz, et al, 1996).

Notari-Syverson et al (1996) state that "in some homes, preschool children may have less exposure to shared picture book reading experiences and the types of oral language associated with later academic success in school" (p 3). Marvin and Miranda (1993, in Notari-Syverson et al, 1996) found that "fewer literacy experiences were provided at home for children ... with disabilities than for children who were developing normally" (p 3).

The family forms part of an interrelated network of social systems which includes other family members, friends, carers, teachers and other professionals (Beckman, 1996). Family characteristics can be considered risk factors in students with intellectual disabilities and possible catalysts for the development of behaviour problems. Hemphill, (1996), cited in Ashman and Elkins, (1998), presented three characteristics which may affect the development of such children. They are (a) maladaptive family interaction, (b) a high level of family stress, and (c) socio-economic disadvantage.
Smith (1990, in Speights, 1991, p 48) indicated that parents played an important role in the effectiveness of efforts made by teachers. Parents have a great deal of information about their children's strengths and specific needs to share with teachers and other professionals, which can be invaluable when assessing students' needs and developing the programs to address them. Some examples of this information may include knowledge of how the child copes with change, the literacy environment in which the child's early years were spent and the level of ongoing educational assistance the family is able to provide (Beckman, 1996).

The structure of the family (including size, birth order and membership) and its levels of stability at different times is information which professionals in education need to be aware of in order to gain knowledge of the whole child and the possible effects on his/her learning (Beckman, 1996). This is all very relevant to the teaching and learning of literacy as background experience greatly influences the world knowledge that students bring to the classroom situation and the support from home that is available during the period of formal education.

Siblings, whether disabled or not, also have a significant impact on the life of a disabled child. Relationships with siblings change as children grow up. Crises can occur when a younger sibling first becomes a rival then overtakes the disabled child to a higher rung on the family hierarchy. Many children with disabilities have siblings with a lesser degree of the same problem, making the problems arising out of differential rates of development more subtle (Gath, 1993). Problems at home are often brought to school in the attitudes with which students approach their work, thus affecting the success of learning activities in class.

It is clear from the literature reviewed that home and family factors contribute greatly to the learning of students with intellectual disabilities. The family is central to a child's development from early childhood to adulthood and has a profound effect on all learning which takes place. In the context of studying the development of the whole child, these factors must be considered. Equally important influences on literacy learning are within the context of school. These issues will be explored in the next section under the headings of literacy learning and intellectual disability, approaches to literacy, the learning environment and the role of the teacher.
2.3 School issues

This study was designed to investigate the literacy learning of adolescents with mild and moderate intellectual disabilities. These students differ from their non-disabled peers in a variety of ways, as diverse as the students themselves. Key features in the investigation of their literacy learning are a) the link between literacy learning and intellectual disability; b) approaches to literacy learning in the school context; c) the learning environment; and d) the role of the teacher.

There has been much debate over the definition of literacy. The Roehr Institute (1995, p 7) claims that 'basic literacy' is often defined as the acquisition of the reading and writing skills essential for full participation in our society. They further state that a broader view of the concept of literacy extends beyond reading, writing and numeracy to include life skills.

Literacy is a word which describes a whole collection of behaviours, skills, knowledge, processes and attitudes. Reading and writing are two linguistic ways of conducting our negotiations with the world. So too, Cambourne (1988) believes, are talking, listening, thinking, reflecting and a host of other behaviours related to cognition and critical thinking.

Literacy culminates in the active, critical, productive thinking and problem solving that results from control of those ... language processes which make it possible for us to successfully negotiate both our school world and the world outside school. Literacy manifests itself in sustained reading, writing, talking, listening, thinking, remembering, selecting, organising, inferencing and other cognitive behaviours. (Cambourne, 1988, p 4).

Indrisano and Chall (1995, p 64) define literacy as "a minimal ability to read and write ... as well as a mindset or way of thinking about the use of reading and writing in everyday life." Brown and Mathie (1990) define literacy as "the making of meaning and its clear communication to others."
The definition of literacy used in this study recognises the importance of both Cambourne's broad cognitive view and the practicalities addressed by Indrisano and Chall. It emphasises meaning and includes speech as well as the skills of reading and writing. For the purposes of this study, literacy is the ability to make meaning using language through speech, reading and writing.

2.3.1 Literacy learning and intellectual disability

According to Ashman and Elkins (1998), reading and writing problems in the general population are the most common forms of learning difficulties in Australia and New Zealand. At school, reading problems often lead to difficulties across all subjects. The range of factors which can lead to reading and writing problems is almost identical to those identified as being responsible for an intellectual disability. These include slow mental processing, visual difficulties and problems in concentration. It is particularly important, therefore, when working with students with mild and moderate intellectual disabilities, that the most effective strategies for teaching language are identified for each student as individual needs vary with the nature of the learning difficulty (Ashman and Elkins, 1998).

Speech and language deficiencies occur at a significantly greater frequency among learners with mild and moderate mental retardation than might be expected in the general population. (MacMillan, 1982, in McLaughlin and Wehman, 1996, p 119). An intellectual disability may restrict children in their own attempts to communicate verbally, thus leading to a lack of feedback and hence a lack of recognition that speech is a tool available to them. Prior to reaching school, most children have learnt a great deal of language with the majority having good control over the words and sentence structure of their language (Harasty, 1993). These problems are taken to school and make the whole process of settling into a formal educational setting more difficult in many cases than it is for verbally competent children.
Receptive and expressive language difficulties in students with mild and moderate intellectual disabilities range in severity from problems with articulation of sounds or pronunciation of words to a significant delay in language development (Bedrosian, 1993, in McLaughlin and Wehman, 1996). Epstein, Polloway, Patton and Foley (1989), as reported by McLaughlin and Wehman (1996) found that in a sample of 107 individuals with mild mental retardation, over half were eligible for speech pathology services. These difficulties arose from a number of sources including poor environments, cultural differences and physical impairments, as well as general intellectual disability.

Georgieva and Cholakova (1996) undertook a study of 148 students with intellectual disabilities, in which various types of speech, language and fluency disorders were found in 80% of subjects. This demonstrates the extent to which speech problems are common in students with intellectual disabilities. They also refer to a number of studies between 1957 and 1992 (p 4) which emphasise the prevalence of speech disorders in such children.

There is a huge range of influences on reading development brought to the learning situation. Students with mild and moderate intellectual disabilities may have specific problems which accompany generally low intellectual functioning. Clay (1986) investigated some of the problems that less able children may experience which affect their learning in the classroom setting:

1. Sensory losses
2. Deficiencies in experiences
3. Emotional disturbance
4. Physical impairment
In addressing the reading development of students with mild and moderate intellectual disabilities, one must remember that reading is a complex process, which includes a number of skills in decoding, using prior language knowledge including oral language, bringing personal experiences to the text and making use of the context both within the text and within the learning situation. Students will bring a range of strengths and weaknesses to the task of reading and these must be utilised in ways which lead to success in mastering the many-faceted reading process (Clay, 1986).

All reading is individual; all reading is interpretative. Unique to each individual are background experiences brought to the reading situation. What engages the reader's mind is dependent upon those experiences and the relationships between them and the text. Aspects of language are inseparable; when we write, we read. When we read, we are conscious of the conventions of quality writing (Cambourne, 1988).

In the past, the focus of remediation in reading has been one of identifying those with difficulty and re-instructing through repetition of isolated skills. Roller (1996) believes that remedial clinics have habitually lagged behind any changes made in contemporary reading practice. "The attitudes, interests and personal learning timeframes of struggling readers are not taken into consideration, nor are their surrounding family influences" (Roller, 1996, p vii).

Intellectually disabled students may find completing written activities difficult as a result of problems with deciding what to write about, choosing their words, spelling, grammar, handwriting and punctuation. The written pieces produced by these students have fewer words and sentences and more errors in syntax, grammar and punctuation when compared to their non-disabled peers (Ashman and Elkins, 1998). Students with language difficulties generate less complex writing samples, using simpler vocabulary than their non-disabled peers and are unable to develop a main idea in a piece of writing (McNamara & McNamara, 1995).
This is supported in the discussion of a study by Keefe et al (1997, p 109), who stated that disabled learners spend "less time on writing, (have) less success in using strategies to generate ideas and activate prior knowledge... and (have) difficulty in organising text." This study suggested, however, that mildly disabled students are able to develop some skills and strategies demonstrated by competent writers.

Graham, Harris, MacArthur and Schwartz (1991, in Ashman and Elkins 1998, p 14) believe that writing problems of students with learning difficulties "derive in part, from problems in planning and in the production of written text (spelling, handwriting and punctuation), their lack of knowledge about writing and problems with revising what they have written".

Many students with learning difficulties choose to write even less than they choose to read. "Writing documents the children's 'deficiencies' in ways they heavily resist." (Roller, 1996, p 84). However reluctant some children may be to leave a permanent record of their inadequacies, it must be recognised that writing plays a vital role in their literacy learning. In attempting to write, knowledge is gained about various writing forms, which adds to knowledge about text in general and in reading. Also, the act of writing requires phonetic encoding which entails the employment of letter/sound knowledge which is critical to both reading and writing (Roller, 1996).

The literature reported on here demonstrates how the unique nature of the intellectually disabled learner impacts on the acquisition and development of literacy. However, it also draws attention to the need for further research which investigates the links between intellectual disability and literacy learning, and their implications for teaching and learning.
2.3.2 Approaches to literacy

This study is underpinned by the philosophy and practice of a whole language approach to teaching. This approach is one of educating the whole child, including all aspects of academic, social, behavioural and emotional learning. Whole language in the classroom involves the teaching of all aspects of language use in context, for the purposes of practical communication and the fostering of an enjoyment of verbal and written language.

A study by Keefe et al (1997) provided evidence that "learners who are identified as mildly disabled are able to develop and productively use a variety of strategies during the writing process when they are immersed in a whole language instructional environment" (p 101). The philosophy respects learners and their diversity and allows specific teaching according to individual needs.

The field of Special Education has long supported the benefits of individual instruction, with programs focussing on the strengths and weaknesses of the individual. Whole language provides a change from mastering hierarchically arranged, isolated skills to leading the learner to approach language in appropriate contextual situations.

Goodman (1986) presents his summary of the nature of language learning in practical terms, describing its need to remain whole, in context, functional and related to the particular situation in which it is learned.

Language learning is easy when it's whole, real and relevant, when it makes sense and is functional; when it's encountered in the context of its use; when the learner chooses to use it. (Goodman, 1986, p 26).
Allen et al (1991, p 460) tested their beliefs about why whole language would increase literacy learning in the students they "worry about most". At the conclusion of their study of a group of struggling learners, they supported the ideas that (a) students must have real reasons for learning, (b) students should develop responsibility for their own learning, (c) children should take risks in a supported environment, and (d) students need to feel a sense of belonging to a literate society.

Students with mild and moderate disabilities can benefit greatly from whole language programs, but only if teachers are alert to the students' current language learning abilities and their language learning needs with respect to the curriculum (Westby, 1992). It is important, particularly for students with intellectual disabilities, that they make optimum use of all information available to them in reading. All four cueing systems of graphophonics, syntax, semantics and pragmatics interact in every act of reading. An awareness of the range of available strategies can only begin to develop when children are constantly involved in activities which require reading and writing in meaningful, realistic contexts, with practical outcomes (Tester and Horoch, 1994).

Students with mild disabilities are frequently exposed to less complex language. They may read books that use only familiar words and that simplify syntax. They are capable of acquiring a literate language style when they have interesting, meaningful texts. To capture and hold the reader's attention, a text must appeal to that reader. Some types of books are more successful in doing this than others. They include cumulative and predictive books which provide a means of exposing the reader to complex vocabulary or syntax in ways they will remember and comprehend, as they use repetitive and predictable language (Westby, 1992).

Kirk and Gallagher (1989, p 69) state that "one of the key elements of any special education program is the process of assessment". The information gained through ongoing assessment forms the basis of the student's individual education plan. Accurate assessment allows the teacher to gauge how well this plan is working and can lead to appropriate changes to the program based on the current development of the student.
The assessment of students with mild and moderate intellectual disabilities must be undertaken on an individual basis, because the differences within any given group are so great in terms of age, past experiences, strengths, weaknesses and learning styles. The learning needs of these students are constantly changing, so assessment techniques need to be applied over an extended period of time in order to draw attention to patterns in learning and to monitor gradual development as well as short-term changes (Dwyer in Bouffler, 1992).

Leslie and Jett-Simpson (1997) place emphasis on the nature of individual development in assessment. They make two recommendations for assessment of literacy which are (a) that literacy learning should be measured using several techniques so that individuals with different literacy experiences are more likely to demonstrate their abilities, and (b) that the growth of literacy needs to be measured from the time the child enters school and should be compared only to him/herself.

2.3.3 The learning environment

The environment in which literacy learning is undertaken is an important feature of the school context for students with mild and moderate intellectual disabilities. Knight (1997) believes that students should want to explore the resources in their classrooms. An interesting classroom should include a wide range of relevant and accessible reading materials. The students also need access to appropriate resources from other sources, such as libraries and computers.

The environment needs to be one which is not threatening to the students and encourages their full participation in class activities. The significance of print to the students' daily lives must be illustrated to them in order for them to see its relevance (Knight, 1998). For example, a field trip to a shop where the students have to read a menu and order their own food demonstrates how print is directly related to daily life.
Students with mild and moderate intellectual disabilities have a wide range of language abilities and learning styles. A sound understanding of language and the many ways it can be acquired can lead teachers to important discoveries of the ways in which their individual students are learning to gain meaning from print. In planning for a "reading-writing classroom" (Butler and Turbill, 1984), there are some important considerations to make which run concurrently with physical environment and content planning. They refer to the day-to-day management of students’ learning opportunities. Four major points are time, ownership, reading process and conventions of language. These are supported by a literate environment, appropriate modelling and a literature-based program.

Notari-Syverson et al (1996, p 4) stated that "children with disabilities, in particular, received fewer literacy opportunities". All forms of writing, be they letters, stories, shopping lists, application forms, bill payments, poems or recounts, must have a realistic base and be used with specific and worthwhile purposes in mind. This provides a more intrinsic motivation as the material being learned will be of personal benefit in everyday life.

A positive, reciprocal relationship between home and school provides the most productive transition between them, giving the children a sense of continuity and the knowledge that expectations are consistent. Many students with mild and moderate intellectual disabilities experience school failure and need constant positive support both from home and at school in order to relieve the feeling of failure by showing the child acceptance of all that they do. Fielding, cited in Roller, 1996, presents some classroom influences on literacy learning for students with learning difficulties. They include time constraints, availability and acceptance of difference.
Time constraints are common in every classroom, but perhaps less so in the Special Education classroom, where the main teacher has the students for most lessons, the exceptions being when they attend specialist lessons or sport. The availability of materials is also essential in order to allow students to access the reading material and writing activities that match their needs at the time. The acceptance of individual differences is critical to the literacy learning of struggling readers (Roller, 1996). It is vital that every effort is accepted and encouraged, so that the students can feel confident to take up the challenges presented to them.

2.3.4 The role of the teacher

In the context of the school, the teacher's role is to ensure that students develop the ability to use language effectively in an ever-increasing range of genres/registers. When implementing the program, teachers need to call on their understandings of language to make teaching and learning more productive for all concerned. In a study which used a multiple case study design, Maxson (1996) revealed a number of general findings about the influence of teachers' beliefs on literacy instruction for at-risk children.

They included that teachers should (a) understand and address the individual needs of at-risk children, (b) recognise and build on children's individual strengths, (c) nurture enthusiasm for learning to read and write, (d) use a combination of pedagogical approaches as this best serves the needs of the children, and (e) believe that all at-risk children can learn (Maxson, 1996, p 2-3).

Knight (1998, p 24) supported this view in his statements that teachers need to be involved in (a) demonstrating their own thoughts and reactions to text, (b) allowing sufficient practice for students to internalise what they have learned, and (c) encouraging the use of strategies for instruction which take into consideration the cognitive levels of the students.
The literature reviewed in this section relates to influences on literacy learning which are school-based. There are a number of ways in which issues relating to school affect the literacy learning of the child. These include school failure, attitudinal problems, reactions to the child's behaviour and learning, classroom practices and relationships with school personnel. Kauffman (1985) in Ashman and Elkins (1998), suggest that there are several ways in which a school can contribute to behaviour disorders in children. They include insensitivity to the child's individuality, inappropriate expectations, inconsistent behaviour management, teaching of irrelevant skills, inappropriate reinforcement and undesirable models of conduct.

Research to date has tended to focus on the effects of a disabled child on the people with whom they interact, such as parents, family, peers, teachers and other significant people. There has been very little research which concentrates on the effects of the environments, both physical and social, such as the school, the home, the relationships with teachers and carers, on the learning development of the child. This study aims to address this by investigating environmental influences on literacy learning including home and family factors and school issues.

2.4 Conclusion

This literature review links the fields of intellectual disability and literacy learning by presenting an outline of the characteristics and causes of intellectual disabilities and how they impact on the literacy learning of those students. Conversely, it looks at how literacy learning theory can apply to students with intellectual disabilities through an examination of the cognitive, social and emotional development of students with intellectual disabilities. It exposes a gap in current literature in that there has been little research which specifically links these two fields and discusses the effects of the unique nature of the disabled student on literacy learning and its impact on classroom practice.
The main features of the literature related to home and family highlights the relevance of this environment to the literacy learning of students with mild and moderate intellectual disabilities. It brings to light the importance of the home environment in influencing literacy learning through early literacy experiences, the impact of family members on learning, the role of the child in the family and the social skills learned at home which greatly affect learning in the classroom.

The examination of literature which focuses on school issues highlights the need to recognise that students with intellectual disabilities have unique literacy needs at school and that approaches to teaching literacy need to be individually adapted to suit each child. The learning environment and the role of the teacher also featured as having major impacts on the literacy learning of these students. This study addresses the issues raised in the literature review by looking at main influences on literacy learning of intellectually disabled students. These are the unique nature of these students, home and family factors and school influences.
CHAPTER 3  METHODOLOGY

Introduction

This study is a naturalistic investigation into the literacy learning of mildly and moderately intellectually disabled students using a case study methodology and grounded theory. It is set within the natural setting of the school and home environments in which these adolescents lived and worked. Information was collected from 19 students over a period of 18 months. The participants were identified as mildly or moderately intellectually disabled and had been placed in special classes in a regular high school.

A naturalistic approach was selected as it suggests that "realities are wholes that cannot be understood in isolation from their contexts" (Guba and Lincoln, 1985, p 39). Learning, and specifically literacy learning, has a number of influences which are not restricted to the classroom situation but arise from all aspects of each child’s life. A naturalistic method of investigating this phenomenon is essential in order to capture the whole picture of influences on literacy learning for these students.

Within these settings and for similar reasons, a case study method of presenting the data was selected. The case study mode is easily adapted to following the paths of learning of individual students and is sufficiently flexible to allow for the inclusion of all relevant data. The case studies in this research provide thick descriptions of the learning of the students and make clear the complexities of their learning experiences. They were further refined to produce literacy profiles of each student which looked at the learning of literacy in particular. As the methodology indicates, the conclusions of this study are grounded in the data. Each case study and literacy profile is different, as is each participant, so the theory which emerges from the analysed data is grounded in the case studies.
My study used a multi-method approach through the employment of a range of strategies. These included interviews, questionnaires, observations, writing samples and documentary evidence which spanned the period from the students' birth to the time of data collection. It is a descriptive study of 19 student cases both within and outside the classroom, including the home and family environments. Lessons in my classroom and those of other teachers, students' activities in the playground, during work experience, at sport and on excursions provided rich sources of data.

In order to study the students' patterns of lived experiences data were gathered through my role as participant observer (Denzin and Lincoln, 1998, p110-111) and by collecting information from the students' wider contexts of the school, family and their communities. The data were analysed using a grounded theory approach (Denzin and Lincoln, 1998, p 172), which led to the emergence of three major themes representing significant influences on the literacy learning of the students.

These themes were (a) the unique nature of the learner including the disability itself, memory and concentration, logical thought, language processing behaviour management, self concept, confidence and attitudes; (b) home and family factors including history of disability, relationships, literacy environment and involvement with school personnel and professional agencies; and (c) school issues including literacy learning and intellectual disability, approaches to literacy, the learning environment and the role of the teacher.
3.1 Diagrammatic representation of the research process

Identification of need for research in the specific area of how students with an intellectual disability learn literacy

- researcher's personal, academic and professional background
- literature review
- observation of development
- current teaching practices in schools
- questions of initial research

Trial conducted of the data collection process in the preliminary phase

- refinement of research questions
- trial data collection methods
- participant observation of students by researcher

The main phase of the study

- interviews and questionnaires
  - students
  - parents
  - teachers
- anecdotal records and work samples
- progress summaries and work samples
- medical and educational records
- participant observation of students
- monthly records of students
- analysis of writing samples
- informed by anecdotal records
- participant observation by researcher

Organisation of case study data

Writing of case studies
Figure 3.1: The research process
3.2 Data collection methods

3.2.1 Theoretical issues

In examining the influences on literacy learning, it is important to take into consideration the broad range of contexts in which learning takes place, so that the full array of influences can be identified. Literacy environments at home, at all levels of schooling and in the wider community greatly influence students' literacy learning. Equally important are the influences of significant people, such as teachers, parents, peers, carers and counsellors. This study explored all significant environments where literacy learning took place, both within and outside the classroom.

Evidence has consistently shown that there is a strong connection between students' school achievements and their family environment (cited by Lowe and Walters in Furniss and Green, 1991, p 140). Spreadbury (1994, p 15-24) presented an overview of research into family literacy from 1908 to 1993. She traced the pattern of research which revealed the importance of the family environment in early literacy learning. She stated that "all research shows that parents have a most important part to play in children's language learning, both spoken language and written language" (Spreadbury, 1994, p 24). In many parental intervention programs underway both in Australia and the USA, a key theme is that "the more children are read stories to, the better prepared they are for school" (Luke, 1994, p 28). This is one particular area which was investigated here through interviews and questionnaires.

There is a wide variation in the ways that teachers create learning environments (Cairney, 1995). Researchers tend to agree, however, that these environments are of vital importance in the development of literacy competence in students of all ability levels. The frequency and extent of literacy successes and failures greatly affect the ways in which students learn and can influence motivation and the patterns of learning the students adopt.
Lowe and Walters (in Furniss and Green, 1991, p 116), in a discussion of unsuccessful readers, state that "the learner can only begin to experience success when they feel supported in becoming risk-takers". An environment which allows children the freedom to take risks in their literacy learning is one where they are encouraged to "engage with print, to be vulnerable and enter into the adventure of making sense of the written word" (Furniss and Green, 1991, p 16). This view demonstrates the importance of appropriate learning environments for all literacy experiences.

The social context of learning is another major factor to consider. Chambers (1991) explains this in relation to reading and outlines the different contexts in which children read. This view of "the reading environment" includes interactions with adults and peers, the physical setting of the activity, the attitudes of the participants, the actual tasks undertaken, the materials available and the time devoted to them.

This study employed qualitative approaches by which to explore these contexts and influences. Participant observation was the main method of data collection. Interviews and questionnaires and the collection of artefacts, both current and historical, provided additional sets of data.

Qualitative research is inherently multimethod (Brewer and Hunter, 1989). However, the use of multiple methods, or triangulation, reflects an attempt to secure an in-depth understanding of the phenomena in question. (Denzin and Lincoln, 1994, p 2).

Multiple data sources are important in studies relying on information drawn from a number of contexts and individual perspectives (Brause and Mather, 1991, p 104). Trustworthiness of the findings was enhanced by the employment of the techniques of prolonged engagement, persistent observation, thick description, peer debriefing and triangulation. The specific methodologies used are discussed below.
3.2.2 Teacher as researcher

I brought a broad knowledge about literacy to the classrooms I researched which was expanded upon as the study proceeded. I was familiar with the settings, the students, their backgrounds and their disabilities. These qualities made my position of teacher as researcher a valid one as I was thoroughly familiar with the areas of intellectual disabilities and literacy learning being researched and brought considerable experience, expertise and relevant qualifications to the situation.

An advantage of the teacher as researcher position was my ability to process the data as soon as it became available, bringing to bear prior knowledge, both propositional and tacit, and an intimate knowledge of the school context. I had the opportunity to follow up atypical and idiosyncratic responses which the naturalistic paradigm and the use of qualitative methods allowed.

The methodology of teacher as researcher using participant observation is not, of course, without limitations. One commonly discussed limitation is that of maintaining unbiased observation while being immersed in the situation as a participant. A number of strategies were employed in order to make the data collection and analysis as rigorous as possible.

Robson (1993) outlines four areas where awareness and diligence are required to overcome bias. The first he terms "selective attention" (p 204) and it relates to the concentration on some aspects of the surroundings in preference to others. To overcome this particular type of bias I regularly checked that my anecdotal records included every student in the study and that I collected as much information as possible on each child. I collected all writing samples that were available and wrote a complete case study for each child, ensuring that as much information as possible was collected and analysed.
The second limitation presented by Robson is termed "selective encoding" (p 204) and refers to the effect that the researcher's expectations may have on encoding data and its interpretation. Data might be categorised on the basis of initial and incomplete information, with little attention paid to later information. Robson recommends that the researcher "start with an open mind - and keep it open" (p 204). As well as being aware of this potential problem, I revisited all data as I wrote the case studies, which occurred before encoding, so all information was taken into account in the coding process.

Robson's third potential bias is "selective memory" (p 204), which refers to the problem created when too much time has elapsed between data collection and the writing of a narrative account based on it. The shorter this time period, the more accurate and complete will be the narrative. My monthly analysis of writing samples, in the form of "progress summaries" ensured that the observational data were examined very quickly after collection.

Finally, Robson refers to the potential limitation presented by interpersonal factors, where the researcher relates better and responds differently to different participants in the research. To some degree, this is inevitable, but it can be countered by an awareness of the possibility of the problem and a conscious effort "to seek to recognise all biases" (Robson, 1993, p 205). With the benefit of a relatively small group of participants, I was able to take into account these interpersonal factors in those interactions from which data relevant to the study were obtained. The presence of the teacher's aide in the classroom also allowed discussion of what was being observed to take place, a method of checking data and findings.
3.2.3 Participant observation

Being a teacher-researcher entails being a participant observer. A key feature of participant observation is that the observer is part of the observed group, taking on some specific role within it (Robson, 1993). Denzin and Corbin (1998, p 111) define participant observation as "observation carried out when the researcher is playing an established participant role in the scene studied". As my role was that of teacher as researcher, working with students in their daily schooling situations, the context in which the study was undertaken remained as close to normal as possible.

Crabtree and Miller (1992) believe that participant observation allows for the cultural context in investigating the research questions. When the focus of interest is how particular settings influence behaviours within those settings, then participant observation is ideal. Crabtree and Miller outline some of its advantages which relate directly to this study:

1. Over time, the students are less likely to change their behaviour as a result of the observer's presence, hence allowing the realities within the classroom and other settings to remain.

2. Actual behaviour is observed, whereas interviews only give verbal descriptions of that behaviour.

3. The language of the participants can be used, rather than imposing the researcher's words only through prepared questions.

4. The context can be observed as it unfolds in everyday school life.
3.2.4 Interviews and questionnaires

Gay (1992, p 231) defined an interview as "essentially the oral, in person, administration of a questionnaire to each member of a sample". Similarly, but more broadly, Bogdan and Biklen (1998, p 93) define an interview as "a purposeful conversation, usually between two people but sometimes involving more (Morgan, 1998) that is directed by one in order to get information from the other".

The interview is a flexible and adaptable way of finding things out. "Observing behaviour is clearly a useful enquiry technique, but asking people directly about what is going on is an obvious short cut in seeking answers to research questions" (Robson, 1993, p 229). Robson adds that interviews have advantages such as being able to change the line of enquiry to follow up interesting responses, with non-verbal messages assisting the understanding of the responses. The purpose of the interviews and questionnaires in this study was to collect "descriptive data in the subject's own words so that the researcher can develop insights on how subjects interpret some piece of their world" (Bogdan and Biklen, 1998, p 94).

The methods used are described by Scheurich (1997) as conventional ones. The process was to administer the questionnaires and conduct interviews, usually on audiotape, which were transcribed and treated as text. The goal of the interviewer is to understand what the interviewee thinks and he/she must be prepared to "let go of the plan and jump on the opportunities the interview situation presents" (Bogdan and Biklen, 1998, p 97). Similarly, Foddy (1993, p 23) believes that respondents should be viewed as active, rather than passive, participants in the interview process, involved in joint "sense-making" activities with the researcher. Bogdan and Biklen (1998, p 95) claim that "good interviews are those in which the subjects are at ease and talk freely about their points of view". They support the idea that quality interviews will produce rich data filled with details and examples.
By the time the students themselves were interviewed, I had worked with them as their teacher for a number of months and had built relationships of familiarity and trust. Most of the students responded well to the interview situation, and did in fact talk freely. The parents and teachers were not as familiar with me, but I had spoken to them all about the students previously in reference to the students and their past and present development. Hence the interviews were not done cold with no previous knowledge of myself or the students we were discussing.

3.2.5 The case study

Sturman, (in Keeves, 1997), defines a case study as an investigation of an individual, group or phenomenon which has been developed with the underlying belief that human systems have a characteristic integrity, rather than a loose collection of traits. Krathwohl (1997) presents a simpler explanation of the case study as a careful in depth study of an individual using qualitative research methods. For the purposes of this study, I follow Sturman in my belief that the combination of all that encompasses the "whole child" is a complex and interconnected set of traits, which when examined together in context, becomes more than a list of characteristics.

Gay (1992) states that, in education, case studies are frequently used to investigate the background, environment and characteristics of students experiencing difficulties. The purpose of using the case study technique is to determine why a particular phenomenon occurs, rather than simply describing it, by determining the factors and relationships among the factors which contribute to each case (Gay, 1992).

My primary aim in using the case study method was to develop theory in literacy through a number of individual cases. Each case study is unique in its nature, background and contexts and reflects what is happening in the lives of each student across a variety of settings. With no restrictions on the type or form of information gathered, the way is open for all relevant data to emerge, thus leading to the identification and detailed descriptions of the influences on literacy development for each child.
The main justification for the use of case studies in qualitative research has been that they have the potential to generate rich data that can aid in the development of theory (Gall and Borg, 1989). In this study, the case study approach, embedded in real social situations, introduces the idea of the human encounter through a close and personal account of the literacy learning of each of the students involved (Guba and Lincoln, 1985). Influences on literacy learning happen in everyday life situations. The case studies are grounded, therefore, in real settings in order to gain a realistic view of the patterns of learning for each child. The descriptive narrative which emerges takes the reader into the classrooms and homes of the disabled adolescents and allows him/her to experience each case in its life contexts.

3.2.6 Grounded theory

Grounded theory is a general methodology for developing theory that is grounded in data systematically gathered and analysed. (Denzin and Lincoln, 1998, p 158). The purpose of this study is to investigate the literacy learning of intellectually disabled students. It does not involve answering specific questions or testing theory, but intends to theorise its conclusions from the data. In this way, the analysed data weaves each student’s story of literacy learning from which theory emerges.

Grounded theory is an appropriate method for allowing this emergence of theory from data. It does not restrict the researcher to answering specific questions only but permits an investigation where boundaries are defined by the parameters of the data. This is vitally important because of the complex nature of literacy learning and the diverse influences on it. Each student has his/her own tale of life and learning. Grounded theory (Denzin and Lincoln, 1998), allows it to come to the surface as data which are analysed and interpreted.

Theory is discovered, developed and provisionally verified through systematic data collection and analysis in a particular setting (Dinham, 1992). One begins with an area of study and what is relevant to that study is allowed to emerge. The purpose of this process is to build theory that remains grounded in the data and illuminates the area under study. In this manner, grounded theory follows from data collection and analysis rather than preceding it, emerging out of the interpretations that reflect the situation being researched.
Denzin and Lincoln (1998, p 158) define grounded theory as "a general methodology for developing theory that is grounded in data systematically gathered and analysed". The method of grounded theory yields a description of processes occurring in social situations (Fawcett and Downs, 1992) which in this study are the learning environments of the students. Pieces of data brought together in the case studies are constantly compared with each other in order to describe the dominant characteristics of the literacy learning of each student.

The process of qualitative data analysis takes many forms, but it is fundamentally a nonmathematical analytical procedure that involves examining the meaning of people's words and actions. Qualitative research findings are inductively derived from this data (Maykut and Morehouse, 1994, p 121).

Data by themselves do not provide answers to research questions (Brause and Mayher, 1991, p 95). The researcher undertakes the process of analysis to make sense of the data. Neuman (1997, p 426) states that in general, "data analysis means a search for patterns in data". Data analysis entails examination of data, sorting and categorising it and interpreting what emerges from the data. It is undertaken in order to explain events so that theories can develop about the phenomena being studied. It therefore looks for the major properties in a set of events. These themes then lead the researcher to further understandings which might guide further investigation or inspire changes in policy and practice.

Data analysis methods within a qualitative design can be flexible and therefore can be adapted as required according to categories of data collected. This element of flexibility occurs throughout data collection and data analysis. Neuman (1997, p 421) maintains that "ideas and evidence are mutually dependent", which is particularly applicable to case study analysis. Data and theory are brought together as analysis guides the path of data collection and the nature of the data influences how it will be analysed.
Bogdan and Biklen (1998, p 67) outlined a simple plan for the collection and analysis of data within a qualitative study, which involved beginning the data collection, searching for key issues within it and beginning categorisation. Data collection should be continued, including that which focuses on the emerging issues. This is the pattern followed in this study, as I made monthly notes referring to the students' work samples and began to transcribe interview and questionnaire data and continued as reports and other documents were collected. Bogdan and Biklen (1998) recommend that this process be completed by writing about the categories and the themes being explored.

The grounded theory method requires the researcher simultaneously to collect and analyse the field data. In order for patterned, open-ended grounded theory to emerge, it is necessary to group similar data and give these categories conceptual labels. To achieve this, interpretation of the data is required. Through constant comparison of the data with these categories, a set of emerging themes becomes apparent and it is these themes and ideas which form the basis of grounded theory growing from the data.

3.2.7 Trustworthiness

"The question of trustworthiness essentially asks: To what extent can we place confidence in the outcomes of the study? Do we believe what the researcher has reported?" (Maykut and Morehouse, 1994, p 145). A study which provides clear and detailed information about its purpose, participants, setting, data collection and analysis and its findings allows the reader to track the processes followed and use this as a basis for judgement of trustworthiness.

Lincoln and Guba (cited in LeCompte et al, 1992, p 650) use the term "trustworthiness" to refer to the "overall quality of a piece of research". They describe some techniques which add to the trustworthiness of a study, including "prolonged involvement in the field with those being studied, the use of many sources of data, looking at data from a number of different perspectives and refining themes pertaining to the data" (LeCompte et al, 1992).
Time is a major factor in the acquisition of trustworthy data. Time at the
research site, time spent interviewing and time to build sound relationships with all
the respondents together contribute to trustworthy data (Glesne and Peshkin, 1992).
Prolonged engagement is "the lengthy and intensive contact with the phenomena (or
respondents) in the field ..." (Guba and Lincoln, 1985, p 77).

The students at Payton High School participated in the study for a period of 18
months, during which time I was able to investigate several aspects of their learning
across the contexts of the classroom, school, home and community. As their
classroom teacher and a member of the school staff, I became thoroughly embedded
in the culture of the school context.

"The deeper the involvement, the longer the association, the wider the field of
contacts and knowledge, the more intense the reflection, and the stronger the promise
of groundedness" (LeCompte et al, 1992, p 388). Teachers observe students in a
number of situations, both inside and outside the classroom. As they encounter
various events, they make decisions based on what has happened which influence the
further direction of classroom practice, thus undertaking a type of informal research
(Brause and Mayher, 1991). Prolonged engagement, persistent observation and
accurate detailed recording of information culminate in thick descriptions of the
phenomena under study.

Because of the structure and timetabling of Special Education classes at
Payton High School, the time I spent with the students, actively engaged with them in
their learning, ranged across a number of settings. This allowed me to observe them
and maintain my anecdotal records on their literacy progress, adding to the number of
ways data were collected and coming to conclusions from different perspectives.

Geertz explains thick description as "description that goes beyond the mere or
bare reporting of an act (thin description), but describes and probes the intentions,
motives, meanings, contexts, situations and circumstances of action." (1973, in Glesne
description of specifics (which) captures the sense of what has occurred and the
drama of events, thereby permitting multiple interpretations."
"Thick descriptions lead to thick interpretations", according to Denzin and Lincoln (1994, p 347), allowing the reader into the lives of the students in the study, enabling them to reach the conclusions presented by the data. Through thick description, events are placed "in a context" (Denzin and Lincoln, 1994, p 347), with all influencing factors making their mark on the student and their literacy learning as a whole.

Triangulation is an established method of achieving trustworthiness in qualitative research. It is defined by Denzin and Lincoln (1998, p 4) as "the use of multiple methods (and) best understood as a strategy that adds rigour, breadth and depth to any investigation". This is supported by Bogdan and Biklen, (1998, p 104) in their statement that triangulation "came to mean that many sources of data were better in a study than a single source because multiple sources lead to a fuller understanding of the phenomena you were studying." Altrichter, et al (1993) believe that triangulation provides a more balanced and detailed picture of the situation and allows for possible hidden contradictions to become visible. In this manner, triangulation allows for cross-checking of data from different sources and from multiple methods.

In this study trustworthiness was achieved through triangulating data obtained from participant observation and my role as teacher as researcher, with other data such as school records, observations by the teacher's aide, interview and questionnaire data, artefacts and reports of other professionals. The case study approach allowed for these data to be checked against each other and for conclusions to emerge from the data analysis as grounded theory.
3.3 Data collection

3.3.1 Phase 1: Data collection at Edith Valley High School

The methodology for this study was greatly influenced by the initial data collection undertaken in a preliminary phase at Edith Valley High School. Because I was the students' class teacher and the Head Teacher for the Student Support Faculty at the school, I was able to study this group as a participant observer as well as having access to information about them from other areas of the school such as subjects outside the special unit, sport, assemblies and the playground.

During this stage, I initially collected all the written work that the students completed in class, including stories, language exercises, science worksheets and maths books, as well as some that they brought from other subjects and all their homework. However, as this work was done under other teachers' supervision, it was difficult to judge how much assistance each student had with particular tasks and how much was their own work.

From this, I decided that the most useful and informative work samples were those from within my own class only, so that the contexts in which the tasks were set and my role as their teacher could be accurately taken into consideration. Thus, samples from other subjects and most homework were discarded. I also found that tasks not directly related to literacy, such as mathematics and art, did not produce data relevant to the study, so only the work samples where students were asked to employ their literacy skills were included.

In this study, anecdotal records were made during most lessons and in some activities such as excursions, sports and events outside the classroom. These took the form of a diary with a space for each child which was always with me during the period of data collection. I found that these provided very useful data, describing students' reactions to literacy events which occurred in their daily interactions with people and their environment. I made the decision to retain all anecdotal records and expand their collection to the point where impromptu entries were made whenever relevant information came to hand.
The organisation of the data was also refined by placing them in a logical order to achieve efficiency of retrieval. Work samples were divided into monthly sets for each student, which were analysed at the end of each month with notes being made on observable strengths in literacy and aspects which required improvement. The students' work samples and anecdotal records were kept in chronological order with a separate folder for each student.

Extensive lesson notes and anecdotal reviews of each literacy lesson were kept for the first month of data collection at Edith Valley. This was very time consuming and did not yield information as valuable as that collected directly from the actual data from the students, so I decided to keep briefer notes and a few comments made on the progress and suitability of the lesson, planned changes and any outstanding actions or reactions by the students. All this was used to detail the context of the learning situation.

I found the reading measurement technique of miscue analysis very useful and planned to use it in the assessment of reading for the students at Payton. I had originally planned to use the Self Description Questionnaire (Marsh, 1990) and the School Life Questionnaire (Ainley et al, 1990) as tools that the students would fill in independently, but after examining the results of those completed by a few students, it became obvious that some needed assistance in reading the questions and most needed help in understanding the scale of answers.

In light of this, I decided that all students should have available to them the assistance of either the teacher's aide or myself in completing the Self Description, School Life and Reading Questionnaires, although the level of intervention would vary depending on the needs of the students, ranging from complete independence to an audiotaped question and answer session. The reason for audiotaping the questionnaires which were answered verbally rather than in writing, was so that the scribing of the latter did not detract from the conversation and to ensure accurate transcription. The students' answers were transcribed verbatim, with no embellishments which might have changed the meaning of the answers, creating an accurate record of responses.
When the teacher's aide began assisting the students, I realised that her comments on how the students had approached and handled the tasks were very enlightening. For example, some students did not read the instructions, others had completed similar activities before, some had no idea of how to interpret the scales and many did not attempt to read independently at all. I decided to include the aide as a participant in the study, not only for such activities as questionnaire completion, but also for her daily interactions with the students in the classroom. These records took the form of an informal journal where the teacher's aide wrote notes on the students as she observed their language interactions.

The use of the teacher's aide was a significant aspect of the research process, as she provided an alternative view of the students to mine. As we were often in the classroom and on excursions together, I was able to get not only my own interpretations of a situation, but her perspective as well. She also added an extra pair of hands in the preparation and conduct of assessment techniques, such as questionnaires and collection of artefacts including work samples, as well as assisting students with individual work in the classroom.

Parents of the students in the special classes at Edith Valley High School did not generally like to attend the school for interviews and I had difficulty in finding opportunities to interview them. Questionnaires were sent home and 41% of parents returned them completed. This might have been due to lack of interest, difficulty in understanding what was required or a lack of reading ability of the parents. The analysis of those surveys returned led me to focus on early learning and family literacy practices as areas of home background on which to concentrate.

On the occasions that parents did come to the school for interviews, I found that there were both advantages and disadvantages in audiotaping the discussions. Some parents were uncomfortable with the presence of the recorder and preferred me to write during our conversations. However, the writing process was slow and parents sometimes had to wait while I wrote before I could ask the next question. Also, my concentration on the discussion was not as focussed as it would have been had I not been writing.
I decided, as a result of this process, to prepare the parents as much as possible so that their acceptance of the tape recorder was more likely. I did this by ensuring that they were thoroughly informed of what I was doing and how valuable their responses were to the study. They were assured of the confidentiality of the recorded interview and informed of their open access to the study once it had been published.

An explanation of the fact that a tape was more valuable than handwriting so that I could fully and accurately capture all they said might have encouraged more parents to agree to audiotaping the interview. Where written notes were necessary, I kept them to the barest minimum and elaborated on them as soon as possible. Due to the demands of school duties, I found this less than satisfactory as I was rarely able to spend time with the data while it was still uppermost in my mind. I decided to tape all future interviews wherever possible.

I interviewed the students about their preferences and opinions on reading and writing and about their literacy practices at home. This process provided valuable experience for interviewing students at Payton. I found that the students talked freely about what they liked and disliked about school in general and literacy in particular. They also liked to talk about the reading and writing activities they and their families undertook at home, answering specific questions about themselves and other family members.

After interviewing teachers of the students' other school subjects and discussing my research with them, I was able to rewrite and refine the questions that guided the interviews with teachers at Payton High School. As a result, I realised the potential value of information gained from past teachers who had taught the students in their formative years and decided to include them in the study as part of the data collection process where possible.
3.3.2 Phase 2: Commencing the study at Payton High School

The data collected at Edith Valley High School led me to develop the research questions and hence to investigate influences on the literacy learning of students with mild and moderate intellectual disabilities. These influences took many forms and varied from student to student. They included (a) the nature and severity of the intellectual disabilities, (b) the home and family environments, (c) parent involvement in facilitating students' literacy learning, (d) present literacy environments in school and in related activities, (e) past school experiences, and (f) teachers' attitudes. These questions are presented on page 2 in Chapter 1.

The data collection techniques used in this study fall into three main categories, these being participant observation, interviews/questionnaires and the collection of artefacts. Participant observation involved teachers, the teacher's aide and the students themselves who also participated in interviews and completed questionnaires, as did the families of the students and past and present teachers. Artefacts collected include anecdotal records, students' work samples, miscue analyses, school records and reports, medical records, counsellors' records, the teacher's aide's journal and anecdotal records, lesson notes and reviews and audio and videotapes of lessons and classroom discussions.

3.3.3 Participant observation

When I came to Payton High School from Edith Valley, I entered the classroom as a participant observer and began collecting data in my first lesson. Hence, the children did not differentiate between my roles as teacher and teacher/researcher. As their teacher, I was a member of the group I was studying, a situation which had both advantages and disadvantages. I was very much involved with the group and knew them well, but it was not possible to maintain an objective perspective on the learning situation. My extensive knowledge of the group added to the bank of information that was available to me and our existing relationships provided a trust between me and the participants.
The daily practices and routines in the classroom and in the school as a whole were not greatly affected by the process of data collection. It was an unobtrusive process which did not include any outside researchers or change my teaching practice in any significant way. Indeed, some students in the class were unaware that it was happening. I often collected students' work and spoke to them at length about their progress as a matter of day to day assessment with events significant to their literacy learning being recorded as anecdotal records. Anecdotal records were notes that I made of any event involving any student's literacy. These included reference to (a) verbal and written classroom participation, (b) speech, reading and writing behaviours, (c) playground interaction, (d) instances of language use, (e) unusual words or sentence structure, (f) insightful observations, and (e) behaviour during literacy activities in class.

It was, at times, difficult to remain objective as I was thoroughly immersed in the situation every day. To balance this, I collected all data which related to literacy learning from all of the students and made decisions on the relative importance of each piece as I wrote the case studies. These data came from interview transcripts, questionnaire results, the teacher's aide's diary and written records. These were used to substantiate other, more subjective, data sources such as the anecdotal records made by myself and the teacher's aide.

As the classroom teacher of the students who formed the group under observation, I was an active participant in their daily classroom activities, and gained thorough familiarity with their home lives, disabilities and educational and domestic backgrounds. I was a part of the educational system within which they learned and a social member of the broader community in which they lived. I also provided educational experiences to meet their literacy learning needs.
Participant observation was particularly appropriate as it enabled me to discern ongoing behaviours, changes in the learning contexts, increases in my knowledge of the students as persons and to further understand the effects of teaching strategies as they occurred. Changes in behaviour, especially literacy learning, are often subtle and gradual in students with mild and moderate intellectual disabilities and may require the keen eye and ear of a teacher who knows them well in order to make astute observations. My presence in the classroom also allowed me to develop more intimate and informal relationships with those being observed in their learning environments.

My other professional duties at school often meant that I was unable to immediately follow up on my data collection. This was countered by the fact that I was spending considerable time in the classroom and the majority of that time I used to focus on the students being studied. It was necessary to devise an organisation of ongoing data collection and analysis where interruptions did not affect the quality of the research process. This included having the teacher's aide keep a journal, collecting a large range of students' written work for later analysis and employing video and audiotaping of interviews and class activities.

The data collected from the teacher's aide substantially contributed to the study by adding her observations of both my teaching and the students' learning from another perspective. The aide worked in one-on-one situations with the students and was often privy to information relevant to their literacy learning. She listened to and watched students use language in their classroom work and in their social situations and was a relatively unobtrusive observer during their activities. At my request she kept a journal, in which she commented anecdotally on the learning events and the personal interactions she observed, focussing on speaking, reading and writing behaviours.
LeCompte et al, (1992, p 705) were concerned that the participant observer may possess a partiality of view of any single event and hence a bias in sampling what is recorded. The concern of partiality of view was met in my study by using data collection techniques such as the teacher's aide's journal and records, videotapes, work samples, school records and information from significant others, such as counsellors, other teachers and medical practitioners. My own awareness of this potential limitation assisted in making this aspect of participant observation less of a problem.

As a researcher undertaking a study within my own classroom, I was fully immersed in the world of that classroom and therefore could not divorce myself from it and observe it objectively. It is this very subjectivity which adds to the depth of the investigation through my ability to make observations as an informed participant in the study and bring my own knowledge of the context to bear on my interpretations of the data collected. However, I did maintain some detachment in the data collection and analysis through keeping a research diary, recording my observations of events dispassionately, collaborating with the teacher's aide and triangulating from multiple data sources in the analysis.

My own professional knowledge as a Special Education teacher and Head of Department and information gained through contact with school and regional Department of School Education personnel gave me intimate knowledge of the institutional context of the study. The location of the Special Education department within the organisational structure of the school and the location of the class within that department formed the organisational framework in which the study was set.

Colleagues assisted the patterns of data collection through discussions on classroom practice and students' literacy progress. Frequent meetings were held with my Ph.D. supervisory panel. Useful information and collegial support were generated through informal discussions with the teacher's aide, discussions at monthly meetings of Ph.D. students and informal discussions at Qualitative Research Methods interest group meetings.
3.3.4 Interviews and questionnaires

Interviews and questionnaires were used to gain information on a number of aspects of literacy learning such as early reading environments, attitudes and opinions and personal literacy practices at home and at school. By common definitions, a questionnaire involves a written response to a series of questions, while an interview is a verbal exchange between researcher and subject. The interview is most useful in gathering data of a personal nature, where questions can be flexible and led by the interviewer.

In this study, because of the nature of the students' reading difficulties, questionnaires were often administered verbally by myself or the teacher's aide. Those who were capable of completing them independently did, but most required or preferred the questions to be read to them. The teacher's aide and I were sometimes required to adapt the wording of the questions to make them comprehensible to each respondent. Thus the difference between questionnaires and interviews was that the questions in the questionnaires did not change in their content during the course of the discussion, but interview questions were deliberately open-ended.

During the interviews with the parents, students and teachers in this study, the respondents were encouraged to answer the questions as fully as they were able and were given the opportunity to expand on points of interest as they arose. The openness of the interviews allowed the respondents to comment freely and, in the case of the students, further explanations of what a question was actually asking assisted in eliciting detailed information.

The three groups of participants in the study who completed questionnaires and/or participated in interviews were parents, past and present teachers and the students themselves. Details of the questionnaires and interview questions used are given in Appendix B. The next section of this chapter outlines how each of these groups contributed to the data collection process through interviews and questionnaires.
(i) Parents

Parents were asked to complete a written questionnaire which described the literacy practices at home, in terms of how often the parents and children would see each other reading or writing, the level of encouragement to read needed by the child, their use of a library, choices in book selection and reading and writing as leisure activities.

Information was gained about the students' early literacy learning through interviews with parents where possible and completion of written questionnaires when the parents were unable to attend the school for an interview. These interviews and questionnaires were based on how and when the child learned to read and write, pre-school and infants/primary school experiences and the change from mainstream classes to special classes. I designed the interview questions around a number of issues relating to the literacy learning of the students. These included learning to talk, reading to young children, the effect of pre-school on language development, coping with beginning school, joining a special class and perceived future prospects.

As the interviews progressed, they tended to take different paths, depending on the issues and concerns of the parents at the time. Some liked to talk about babyhood or toddler years and found that this was the most revealing period of the child's learning. Others discussed very recent treatment in the primary or high schools. Every parent was asked when the child moved to the special class, how they perceived this change and how it influenced their child's literacy learning.

Each child's development was different and perceived differently by the parents. The purpose of these interviews was to glean what information the parents felt was important to the child's development. This ranged considerably between the children and emphasised different events and experiences for each child. It provided a rich data source, allowing the development of each child to be explored in a way which was personally relevant.
(ii) Teachers, past and present

Eleven of the students participating in the study attended the same local primary school and were in the classes of two teachers who had been in their special education positions for a number of years. Another three boys came from the same class in another primary school and were moved from the IM class to the IO class at Payton High School. They had been placed in the IM class in early primary school, as a result of psychometric testing. However, their development remained slow and on retesting at the end of primary school were found eligible for IO placement. Payton I High School was their nearest school with an appropriate vacancy.

In depth interviews were conducted with all three of these teachers and provided very useful artefacts, such as work samples and reports from the students' primary years. The teachers were asked to describe the literacy skills of the students they had taught when they first arrived in the class, during the time they had them and when they left. Speaking, reading and writing tasks undertaken in the classrooms were discussed, emphasising student performance and learning. Demonstration of literacy processes including reading and writing practices in the classroom, responsibility for learning and teacher attitudes and expectations were also discussed in these interviews.

Present teachers in other subject areas at Payton High School were interviewed using similar questions. However, instead of particular students being the focus of the discussions, these teachers tended to talk about the IM and IO classes as entire groups and often compared them to the mainstream classes that the teachers were currently teaching.

These teachers saw the students at the same time and level of development as I did, but in a different context. The classes still contained the same students, but in a different room, with different subject matter, teaching styles and learning experiences. The feedback from these teachers was valuable in that it provided a different aspect on the literacy learning of the students during the period of data collection.
When analysing the data from past and present teachers, I was very much aware of the possibility of distortion of the teachers' perceptions of the students, especially if they had not seen them for a number of years. In one of the interviews, both teachers were together and they matched their perceptions of the students, generally agreeing. Another interview was with one teacher alone and I was careful to compare the data he provided with other sources of information, such as documentary data, information from the parents and the anecdotal records I made of each students' current capabilities.

(iii) Students

The questionnaires administered to the students included Marsh's Self Description Questionnaire (SDQ, 1990), Ainley's School Life Questionnaire (SLQ, 1990) and a reading questionnaire I designed to investigate the students' attitudes to and opinions of their own literacy abilities and practices (Appendix B). The questionnaires gave indications of the levels of each student's self concept in a number of areas and of the students' opinions and attitudes to school and learning in general. The SDQ and the SLQ consisted of a list of statements to which the students gave answers on scales from negative to positive.

For many of the students in the study, the tasks of reading and writing were challenging. Some students had much greater knowledge and more complex thought than they were able to demonstrate through reading and writing and had a significantly greater understanding of verbal language than written language. In order to overcome this problem, when completing questionnaires or writing in class, a scribe was frequently used by those students (and one parent) where it was required. The scribe read questions or instructions to the student, with explanations or prompts where necessary and wrote his/her responses verbatim. In some cases, the responses were then copied or traced as part of a class activity.
The reading questionnaire explored the students' opinions and attitudes to reading in general and their perceptions of their own levels of competence. Home reading practices were discussed and the students were given the opportunity to talk about how they attempted to read an unfamiliar word or interpreted one whose meaning was unclear. Book knowledge and literary opinions were explored and the students expressed their perceptions of themselves as readers and writers.

Each student was interviewed individually to gain further information on his/her attitudes to literacy. Topics that these interviews covered included favourite authors and books, books studied in class, reasons supporting opinions, learning to read and living in a reading or non-reading family. The strategies used by the students to decipher unknown words or make sense of misunderstood sentences were also discussed. The student interview questions were open-ended and required the students to think about their own literacy learning and their learning environments at school and at home.

3.3.5 Collection of Artefacts

The documentary evidence used in this research included (a) anecdotal records kept by myself; (b) work samples, collected at least twice per week, often more frequently; (c) individual progress summaries for each student, based on analysis of work samples, which were updated on a monthly basis; (d) miscue analyses of students' oral reading; (e) the teacher's aide's journal, which contained anecdotal records of lessons and classroom interactions; (f) lesson notes and reviews; (g) school and departmental policies in Special Education which affected the students' learning situations; (h) school reports on students; (i) school records of student progress; (j) transcripts of conversations and interviews; (k) medical records; and (l) counsellors' records.
During the data collection period, data were reviewed and summarised monthly. The main components of these summaries were the collection of writing samples and the anecdotal records. Each student's summary outlined perceived literacy strengths, areas of concern and any changes in literacy practices. These varied for each student and were very much an individual record. They were ultimately used as a data source which contributed to the development of the case studies.

School reports as a group of data consisted of half-yearly and yearly reports written by class teachers, the Pupil Record Card, which was kept by all Department of School Education primary schools as a central record of progress and any other official record held by the school such as test results and counsellors' reports. Audio-recordings of students' oral reading, conversations and lessons also formed part of the data collected, as did video-recordings of literacy lessons in IM, IO and combined classes. These data formed a significant component of the information which was used to develop thick descriptions of the settings and of the students involved in the project over a period of time.

In order to be eligible for placement in an IM or IO class, the students were required to undertake a psychometric test of mental functioning known as the Weschler Intelligence Test for Children-Revised (WISC-R). According to Department of School Education records kept by the District School Counsellor, this test is individually administered and consists of 10 sub-tests plus two optional supplementary sub-tests, and is split into two halves, verbal and performance.

The verbal sub-tests require understanding and use of language, and the performance sub-tests measure intellectual abilities not dependent on language. Each sub-test is given a scaled score from one to 19, with a scaled score of 10 being an average score. The test results are in the form of a Verbal IQ score, a Performance IQ score and a Full Scale (overall) IQ score.
3.4 Data analysis

The case studies formed the main data set for analysis. Pieces of data brought together in the case studies were constantly compared with each other in order to discover the dominant characteristics of the literacy learning of each student. The nature of each child's disability and how it affected the way he/she learned was different from all the others. The families were different and their lifestyles were different.

As well as their individual differences as adolescents, there were idiosyncrasies in the things the students enjoyed and chose as leisure activities, the way they interacted with people and their levels of independence in the community. Most importantly for this study, there were significant differences in the way they learned to speak, read and write. These very complex processes were as different as the children themselves.

As the study progressed, a number of issues arose which influenced its direction and the data analysis. Many influences on learning were examined as a result of variables identified within the contexts of students' learning environments, both at home and at school. They included the nature of the students' disabilities, the cognitive, social and emotional states of the children, home and family factors and school issues. These influences were highlighted from a number of different sources, including notated observations, audio and videotapes, interviews, questionnaires and educational artefacts.

There was a continuous interplay between data collection and analysis in the grounded theory method used in this study, thus theory evolved during the research process. During the collection of data, I provisionally analysed them through monthly analysis of writing samples while collating the data for each student for further analysis. This analysis then fed into the ongoing data collection process and produced more information about a particular area of literacy learning which could be written up as thick description.
This contributed to building up my central theme of literacy learning but, as the study progressed, other themes emerged which warranted further investigation. I gained new perspectives on the educational phenomenon under study and, as Brause and Mayher (1991, p 97) suggest, developed new understandings of it. The classroom and other learning environments provided the observable data, as did my role as teacher-as-researcher, especially my close involvement with the students.

Throughout the process of data collection and analysis, I kept an informal research diary which tracked the progress of the study and culminated in a recount of the research process. This added to the trustworthiness of the research as it detailed the path that the investigation took, giving reasons for decisions made throughout. Sanger (1996, p 45) quoting Guba and Lincoln's work, has organised these processes into a "validity list" which included many of the techniques used in this study. They are prolonged engagement, persistent observation, thick description, peer debriefing and triangulation.

Ideas and emerging themes were cross-referenced by examining the same issues within different types and sources of data. Consistency between statements made or observations recorded by different participants were checked. Interpretations of different data types were compared and their level of support for one another verified.
3.4.1 Connections between and among data sources

Observations
* anecdotal records
* audio and video records
* lesson notes

Interviews/Questionnaires
* students
* parents
* teachers

Artefacts
* work samples
* medical records
* school records
* other reports

Learning and literacy learning of adolescent students with intellectual disabilities

19 individual case studies

Literacy profiles

Implications

* the recognition of the nature of the unique individual
* school and class at school
* individual programming
* providing support for families
* professional development

Figure 3.2: Connections between and among data sources

3.4.2 Case study analysis by coded categories

The coding of the case study data was processed through the use of computer software known as N.U.D.I.S.T. (Non-numerical Unstructured Data Indexing Searching and Theorising, produced by Qualitative Solutions and Research Pty. Ltd., 1994). This program is designed to assist researchers in handling non-numerical and unstructured data in qualitative studies. It creates an environment where data can be stored, coded, categorised, explored and theorised.
N.U.D.I.S.T. imposes no limits on the number of categories there may be in a project or on the amount of indexing done using those categories. Richards (1992) outlined some ways in which N.U.D.I.S.T. is designed to support the emergence and construction of theory which are relevant to the study of natural phenomena. It has a strongly structured but flexible index system which allows the researcher to create, explore and manipulate the categories. It allows the creation of new categories and exploration of their links to the data as well as relationships between them. N.U.D.I.S.T. supports the notion of a "memoing" facility, which is central to the idea of grounded theory development, by allowing the researcher to write text that is attached to indexing categories.

"In most forms of case studies, the emerging themes guide data collection, but formal analysis and theory development do not occur until after the data collection is near completion" (Bogdan and Biklen, 1998, p 66). The case studies were written and revised several times before being entered into N.U.D.I.S.T. in their entirety for coding, using one paragraph as a unit of data. Interview and audiotape transcripts, questionnaires and the teacher's aide's diary were entered in a form which could be read by N.U.D.I.S.T.. Codes and search facilities assisted in finding patterns in the data, with memos made to record emerging ideas.

The results of the searches were stored for use in further searches. Through working with the case studies, I became very familiar with the content of the data and was able to combine this with my knowledge of the students in deciding on categories which were relevant to the research questions and to the general literacy learning of the students. The coding system continued to be refined by further classification of concepts, leading to the forming of categories (Strauss and Corbin, 1990). This allowed me to propose provisional relationships between and among the emerging categories and to describe those categories in terms of their properties and dimensions.
As I worked with the data, I decided on broad preliminary categories under which the data could be grouped. These included base data for identification purposes, people involved with literacy learning, speaking, listening, reading, writing, and specific skills related to these. Personal attributes formed a large category with many branches which described these attributes in more detail and included, for example, independence, confidence, physical considerations and self concept. The data were also grouped by context, so that I could check where, when and with whom particular events had taken place. These included the classrooms, playground, home, during homework, in the community, at leisure and at work experience. The temporal categories included early learning, pre-school, infants, primary, secondary and in the future.

I devised a number of questions which I wanted to ask of the data with reference to the research questions, guided by my coding categories. I worked with these questions for some time, using N.U.D.I.S.T. to link concepts. The main categories which arose from this investigation of the data related to (a) the people with whom the students interacted, (b) competencies in reading, writing and speaking, (c) personal attributes, and (d) the contexts in which learning took place.

My understandings of the data were tested against other data, using the constant comparative method of data analysis. "The constant comparative method (Glaser and Strauss, 1967; Strauss, 1987; Strauss and Corbin, 1994) is a research design for multi-data sources" (Bogdan and Biklen, 1998, p 66). It involves the process of comparing data which was coded to particular categories, cross-referencing it with other data and grouping the emerging ideas and themes. For each aspect of literacy learning that I chose to examine, I compared the relevant pieces of data with one another across a variety of settings, times and people, revealing similarities and differences within and between cases, which led me to refining the categories devised using N.U.D.I.S.T. and to begin looking at theory development.
The next step in the process of analysis was, according to Strauss and Corbin (1990), "dimensionalising" or developing the categories into themes that are fully described and closely defined. As the categories developed throughout and after open coding, the questions of 'who', 'when', 'where', 'what', 'how', 'how much' and 'why' needed to be constantly asked of the data in order to apply the descriptions and definitions to the categories. While the method assisted initial data analysis, I found that I needed a framework to work within to reach logically grounded conclusions which would answer my research questions.

After consultation with my supervisors, I felt that the information the data was revealing was very broad and needed to be more focussed on the literacy learning of each individual. To this end, I revisited the case studies and wrote literacy profiles on each student. These were organised chronologically and involved identifying significant aspects of literacy learning and possible influences on them.

3.4.3 Writing of literacy profiles

Having become increasingly familiar with the case studies and other data which had been coded and categorised in N.U.D.I.S.T., I was able to focus the study better by writing literacy profiles. These were written from the case studies and combined with my in-depth knowledge of the students' literacy learning gained from my role as teacher-researcher and the other evidence available. In compiling these, I critically re-read each case study and wrote the profiles, concentrating only on data which were specifically related to the students' literacy learning.
As I progressed, I began to see some common threads emerging. These included the continuous reference to influences outside the classroom, the impact of early intervention and special class placement, the strong influence of the home and family and the role of those involved in the learning process such as teachers, counsellors and medical professionals. The literacy profiles ranged across all settings, both within and outside the school, and included all people who were involved in the education of the students. When I had written all the literacy profiles and revised them, I then focussed on the themes which were emerging and looked again at the literacy profiles from a new perspective; that of the broader influences on literacy learning.

3.4.4 Theory development

In re-examining the data in the literacy profiles and combining them with my intimate knowledge of the case study data I was able to examine each literacy profile with reference to the specific influences on literacy learning for each child. These fell into three major categories: the unique nature of the learner, home and family factors and school issues. The unique nature of the learner was described in terms of the characteristics and causes of the intellectual disability, the cognitive processes he/she employed and the social and emotional behaviours displayed by the student.

Relevant home and family factors included the impact of the family as part of the child's social structure, the role of the child within the family, early literacy experiences at home, the structure of the family and the roles of parents and siblings. School issues addressed were the link between literacy learning and intellectual disability, approaches to literacy learning in the school context, the learning environment and the role of the teacher.
While grounded theory is central to the thesis, the study aims also to build on or challenge existing theory in the areas of literacy learning and Special Education. The identification of themes influencing literacy learning in a broader context than the classroom breaks new ground. These themes provided the means for the refinement of results and the development of conclusions, theory and practical recommendations. Closer examination of each theme in turn led me to investigate trends, commonalities and differences across cases and contexts leading to conclusions about those influences which played a significant role in the literacy learning of students with mild and moderate intellectual disabilities.

The following chapter outlines the 19 individual literacy profiles with a brief introduction on how they were developed and organised. The ensuing chapters detail the findings of the study grouped around the key themes identified in the profiles with specific case examples to support them. The conclusions and recommendations chapter brings the findings together, to explore the theory implications for literacy learning of intellectually disabled adolescents and suggests specific ways in which the study's findings can be used to improve further the literacy learning of such students.
CHAPTER 4 SUMMARY OF LITERACY PROFILES

Introduction

Nineteen case studies were completed and a literacy profile was written for each student. The extended versions of these detailed accounts of literacy development and its influences are presented on CD in Appendix A. They focus on the particular circumstances of each learner including their unique nature, the home and family factors and school issues which influenced the path of their literacy learning.

The data used for the case studies was collected over 18 months and included information from anecdotal records, educational and medical records, school reports and other documentation, interviews with students, parents and teachers, questionnaires completed by parents and students and analysis of students' written work. The literacy profiles refined this information to concentrate specifically on the literacy learning of the students involved, describing the paths of the literacy learning of the each student and outlining the influences on it. This chapter presents the main findings of the literacy profiles in summaries of those influences.

The literacy profiles differ in their formats, according to the nature and range of data available for each student. One common thread which runs through almost all of the literacy profiles is the reference to "literacy markers" as indicators of learning. Cambourne and Turbill (1990) investigated the literacy assessment techniques of a number of teachers, finding that "there was a strong consensus among teachers with respect to the kinds of information they felt they needed to collect". Based on the teachers' information, Cambourne and Turbill then developed a set of "markers" or "overt forms of language behaviour that mark or give evidence of the presence of some kind of linguistic knowledge, skill or attitude" (Cambourne and Turbill, 1990, p 343).
Not all of the markers were appropriate to the students in this study. Those markers relevant to the data and the students are as follows (Cambourne and Turbill, 1990, p343):
1) A sense of audience when communicating
2) Control of conventions appropriate to language context
3) Vocabulary acquisition and use appropriate to context
4) Control of a range of grammatical options
5) Sentence complexity
6) Comprehension of what has been heard or read
7) Confidence in using language in different language contexts

For the purposes of this thesis, I have categorised the students into three groups on the basis of their literacy knowledge and skills at the time of the study. The criteria on which I based this categorisation were (a) oral reading ability; (b) comprehension of what has been read; (c) independence in reading; (d) knowledge and use of conventions of language such as phonics, spelling, grammar and sentence structure; and (e) independence in writing.

The higher group (Group A) included Clive, Eric, Karen, Micky and Shane. These students were all capable oral readers who understood what they read at least at a literal level. They demonstrated a high level of knowledge of language conventions and were able to use them to some extent in independent writing.

The middle group (Group B) comprised Jane, Jackie, Kate, Mark, Max, Ros and Simon. These students demonstrated some ability in oral reading with limited comprehension and independent reading skills. They demonstrated some degree of basic knowledge of language structures and were able to use these in a limited way in writing, but often required assistance. The lower group (Group C) contained Brian, George, Kevin, Martin, Mitchell, Pete and Warren. These boys had very limited reading skills and were unable to read beyond a few words independently. They were unable to write independently beyond their own names and some simple common words.
Group A

Discussion of influences on Clive’s literacy learning

Clive was a boy in Year 9, who was very much more academically capable than most IO or IM students. A keen reader, Clive could write in full coherent sentences, if slowly. He was using prescribed drugs for migraine. He preferred to be alone in the playground. Both parents and two brothers lived at home and Clive travelled to school by bus.

Clive's difficulty with learning to talk was detected early and the intervention of speech therapy started immediately. Clive attended these sessions for five years and his speech was often commented on in that time as improving significantly. Clive's medical difficulties also influenced the path of his learning as he was frequently absent from school or trying new medication to control his headaches and epilepsy. Clive's family was very supportive of his learning and provided him with a settled home environment which balanced his changing school situations. His parents worked co-operatively with the institutions to find appropriate placement for him. The family was a reading one and the practices of reading and writing were taken as a normal part of every day life.

Clive's literacy skills were definitely more developed than those of his classmates in both IM and IO classes. He was a competent reader who enjoyed reading and writing and had a particular interest in specific authors. Clive's creative and practical writing were quite advanced for a student with mild intellectual disability and it appeared that the main problem with his attendance in mainstream classes was that his writing was very slow. The progress of his work was very slow because of his meticulousness in maintaining quality. In mainstream classes, because of the timetable, he was restricted in the amount of time allowed for each task. Clive was also in need of regular reassurance that his work was of an acceptable standard.
Clive, although slow, was a capable communicator, both verbally and in writing and easily as capable as his mainstream peers in using print as a tool to convey meaning for an intended purpose. He used print for a variety of purposes, both functional and for recreation. Clive used print to find information and present it, to locate and identify places, for travelling, shopping and other life skills. Clive also enjoyed the process of creative writing and often wrote for pleasure in the forms of stories, poetry and letters.

Clive appeared to lack confidence outside the security of a special class and performed best within one. His attitude to his own work and his situation in the classroom greatly affected the ways he chose to learn. When given an environment that was conducive to his individual development, his literacy skills progressed to a relatively high standard. Clive very much enjoyed the processes of reading and writing and mastered many of the conventions of language which enabled him to read fluently and to express his ideas in writing. With these skills, and in an environment that fostered confidence, Clive was able to develop his literacy competence to a relatively high level for a student with his level of intellectual functioning.

**Discussion of influences on Eric's literacy learning**

Eric was a Year 10 boy, with moderate intellectual disability of unknown cause. He was socially very capable with IM level language skills. Eric's spatial awareness, sequencing skills and logic were very poor. He was mainstreamed for dance which he enjoyed. His mother was the teacher's aide for the IO and IM classes and drove her son to and from school. Both parents lived at home and Eric had no siblings.

Eric's disability, in terms of his literacy learning, manifested itself most in his short attention span, difficulty in following instructions, poor visual discrimination and his inability to comprehend text above a literal level. In reading, Eric was capable of basically comprehending and remembering a range of text types, demonstrated by retelling of stories and events and use of factual information.
In writing, Eric could retell a story or recount an event in logical sequence and in a manner that a reader could understand. His spelling was excellent and his syntax usually close to conventional patterns but he did not separate sentences with full stops and tended to include a number of unconnected ideas per sentence. Eric was able to use both receptive and expressive language for pleasure and in order to communicate where necessary in a literate society.

At the conclusion of the data collection period, when Eric was in Year 11, his literacy learning had progressed in some areas more than others. He was capable of conveying his meaning verbally but did not use conventional sentence structure or vary his register to adapt to different contexts. He was also able to comprehend what he heard and read and respond appropriately. For Eric, a number of key issues were relevant to his literacy learning. A combination of his own development, his family and the school all had a significant impact on his development at different times through his life.

Eric's disability itself was an important influence on his literacy learning. Although he was a competent oral reader and enjoyed print, his level of comprehension remained literal throughout his school life. He could speak well enough to integrate socially and make himself understood, but had little grasp of conventional language structure. This was also reflected in his writing which took similar forms to his oral reading.

Eric's family was particularly significant in providing support for his literacy learning. They were active participants in determining appropriate class placement and were always positive about any achievement or success he made, no matter how small. His parents provided him with a literate environment at home, with models of active language use and supplied him with a wide range of printed materials to suit his needs and interests.
The school environment and classroom activities, especially in secondary school, were also highly instrumental in the literacy gains Eric made. The class placement with students with moderate intellectual disabilities was appropriate to Eric's academic needs while the wider scope of the mainstream playground met his social needs well and contributed to his happy disposition. The individual programs designed for Eric were devised with considerable knowledge of his strengths and limitations and led to the progression of his literacy skills through capitalising on the activities in which he succeeded and working on developing skills he was still mastering.

**Discussion of influences on Karen's literacy learning**

Karen was in Year 9 and performed well academically in the IM class, but lacked motivation for schoolwork and absences were frequent and extended. Socially, Karen was very capable. She lived with her mother, brother (Shane, also in this study) and sister, and travelled to school by bus.

Karen's verbal skills were well developed and she had a high level of self confidence which made her use of speech quite effective, but the knowledge of language that this afforded her did not transfer into reading and writing. Karen's use of print remained limited to those forms which were necessary for her to function well within the community. She was able to read street signs, simple letters and notes, lists, catalogues and the like, but did not choose to read for pleasure or use print beyond what she found necessary.

Her writing skills also restricted her taking up a number of opportunities to write. Although short letters, cards and diary entries were common activities that Karen enjoyed, she rarely wrote lengthy pieces or undertook more complex writing activities. Karen's sentence structure was beginning to approximate convention in that her writing was able to be understood, but while at school, her literacy skills did not reach the stage where she could competently write a full sentence, end it with a full stop and begin another.
Karen's general weaknesses in performing structural reading and writing tasks, such as spelling, sentence structure and grammar, were problems for her throughout her schooling and, I believe, may have been significant in her decision not to continue her formal education at all once she had reached the age of 15. Her low self-concept in the areas of reading and academic learning were also influential in this decision.

Although Karen's cognitive functioning was in the very high range of mild intellectual disability, with verbal skills equal to those of her age peers, there were a number of influences unrelated to formal schooling which hindered the progression of her literacy learning. They included home and family circumstances, parental attitudes to schooling and Karen's emotional disturbances. Karen's class placement, positive peer relationships at school and her good relationships with her teachers, appear also to have contributed.

Karen was a relatively high functioning student within the IM range, whose academic learning at school was hampered by influences outside the classroom such as family disruption, conflict at home or with peers and other social difficulties. One of Karen's strengths in literacy was her verbal ability which showed itself from the age of two, when she spoke at home to help her younger brother. This competency allowed Karen to mix well with adults and children and enabled her to participate successfully in social interactions.

Karen's mother showed a negative attitude to school in general and Karen's early experiences in particular, although there was evidence that Karen made important literacy gains in pre-school. She did not feel that repeating Kindergarten was appropriate for Karen and felt that IM placement in Year 3 was a form of punishment. Her mother felt that Karen had been unfairly treated and that the school was victimising her rather than trying to help her. However, she did agree to both these placements.
The teachers felt that many of Karen’s emotional disturbances were related to circumstances at home. It is evident that there was some intervention by the Department of Community Services, but details of these problems were not available. Karen had several absences from school, some prolonged, the incidence of which increased in secondary school. It is difficult to tell whether these absences were the result of Karen’s unhappiness at school or her general emotional state, stemming from difficulties at home. Lack of participation in literacy activities in the classroom lessened her chances of furthering her literacy capabilities. Staying away from school could have been either a cause or an effect of Karen’s attitude towards school at the end of Term 3. Her absences were, however, significant in her leaving school at that time.

**Discussion of influences on Micky’s literacy learning**

Micky joined Year 7 in the second year of data collection. He had a moderate intellectual disability resulting from head injury at 9 months of age. He was a fairly capable reader with poor writing skills. He was using Dexamphetamine to control his behaviour and had a slight stutter. His social behaviour was variable and he was taxied to and from school.

Micky’s slow verbal development was detected early and speech therapy brought about some degree of improvement. His erratic and sometimes violent behaviour through early school years hampered his development as he was unable to participate in a full day’s work at school. However, this seems to have been managed extremely well by medication and became continually less of a problem as Micky grew older.

Micky enjoyed books and reading, visited the library frequently and read for pleasure. He was capable of using environmental print in, for example, street signs and common labels, but had difficulty following written instructions. He did not like to write independently and rarely used writing as a form of communication outside the classroom.
In speech, Micky approximated convention to the extent that he could convey his meaning to the listener. He was able to competently read in oral form and his pronunciation of common words was reasonably good. Micky was reluctant to write without assistance and he rarely attempted words independently. Micky took responsibility for his own reading, as demonstrated in his ability to select his own reading material and his willingness to participate in reading activities both at home and at school. However, he took very little responsibility for his own writing where he showed a marked lack of confidence, with a strong reluctance to take risks and experiment with words.

There was evidence that Micky's knowledge of language structure and conventions was significant through his verbal competence and his continued enjoyment of books and reading. This did not, however, transfer to his writing skills, in spite of the presence of those influences which inspired his reading development, such as saturation with print, encouragement from home and school and opportunities to practise developing skills.

Throughout primary school, Micky's oral reading skills developed rapidly with appropriate teaching and learning experiences and family support. Micky's home was a place where reading was very highly regarded and actively encouraged and books were ubiquitous. He developed confidence in his own reading skills, throughout Years 5 and 6 indicating that he had progressed well in literacy learning under the guidance of his teacher and immensely enjoyed printed material of many types. This development continued in the receptive language area but not in expressive skills. He did not develop into a competent writer at all in his primary years or in the first year of high school.
Micky's ability to process language verbally and in reading far outweighed his written expressive skills, not unusual for disabled children. However, Micky's high level of reading ability was not typical of a global intellectual disability. It is assumed that this unusual pattern of literacy learning may be attributed to the nature of Micky's disability, stemming from his head injury, with specific parts of the brain being damaged more than others. His teachers' recognition of the nature of Micky's disability and their competent management of it in developing appropriate programs contributed to the literacy success he experienced.

**Discussion of influences on Shane's literacy learning**

Shane was in Year 7 and had a high IM level reading/writing ability. He displayed occasional behaviour problems, but was popular and very capable socially. He lived with his mother, younger sister and older sister, Karen, also a participant in this study. He travelled to school by bus.

Shane's home life was very turbulent with several changes in the family structure and Department of Community Services intervention in the care of the children. He suffered considerable emotional disturbance which manifested itself in poor behaviour at home and at school. There is also some evidence that Shane's medication for epilepsy may have affected his early learning, although this was not a continuing problem.

Although Shane fell into the category of mild intellectual disability on the basis of the Weschler Intelligence Scale for Children, his literacy skills had developed, by the age of 14, to a level where he could have coped with the work in mainstream classes. However, his behaviour was such that he was unable to maintain his position. As indicated earlier, literacy was the only academic area where he seemed to excel. In my view, this was due to the early success he achieved with it and the encouragement of these successes leading to Shane learning independently through practice.
In the IM classes, Shane was given the opportunity to succeed in academic work. He performed well above the average level for an IM student and was proud of his own efforts. He was achieving significantly and hence able to maintain his high self concept. In the IM environment, Shane had little competition, but in the mainstream class, he was with his academic peers and no longer the most competent member of the class. IM teachers are trained in dealing with emotional disturbance in the school setting and were able to give Shane more individual attention than in mainstream classes.

As Shane was a relatively capable reader, he used print frequently in his everyday life and as a leisure activity. He also enjoyed reading for pleasure and often borrowed library books from school. Shane read orally with very close approximation to conventional pronunciation and expression. Shane was not as avid a writer as he was a reader, but still undertook many writing activities independently. He was keen to accept any writing task in class provided he was not angry or upset by some incident at home or at school. He enjoyed completing written assignments and receiving positive feedback.

Shane's sentence structure resembled accepted patterns and his few problems stemmed from a limited vocabulary and spelling. His turbulent emotional state generally took priority over his desires to improve his own academic competence. Although he fitted the criteria for entry to the IM class, most of Shane's problems in education stemmed from emotional and social instability rather than an actual intellectual disability. It was Shane's behaviour, rather than his academic capabilities which caused him to remain in special classes. This was probably due to his need for a secure and non-threatening environment, where he did not feel as much in competition with other students and where he had a chance to succeed.
Group B

Discussion of influences on Jane's literacy learning

Jane was a girl in Year 9 of average IM ability. She was keen to work and was socially capable. She was mainstreamed for Typing, Art and Design and Technology electives. Her mother and older sister lived at home and she travelled to school by bus.

Jane's progress in literacy appeared to plateau through Years 9 and 10. In Year 8, the comments on her English report indicated improvements and spoke of the "great gains" she had made. Jane's Year 9 report still showed improvement but was not as positive as the previous year's. In Year 10, across all reports, not only English, was a common comment that Jane always worked to the best of her ability, but there is no mention of ongoing improvement. This shows that the teaching that Jane received at school, especially in her late primary and early secondary years, was a positive influence on her literacy learning.

In her written language, she experienced major difficulties with developing control over conventions appropriate to language contexts, such as accurate spelling and punctuation. However, her handwriting was legible most of the time and her use of standard grammar was such that a listener or reader could comprehend her meaning.

Jane's vocabulary acquisition developed slowly but she did not reach the stage where she varied her selection of words across a range of registers. A variety of synonyms was not prominent in her speech and less so in her writing, where she rarely used new or unusual words. Jane had some control of grammatical options in that her spoken and written sentences were sufficiently structured so that meaning could be understood, but she did have some difficulty with appropriate use of tenses and pronouns.
Jane's sentence structure did not always demonstrate a logical construction. She usually used short and simple sentences, often joined by *and* and *then*, and did not tend to make use of longer and more complex sentences. Confidence in using language in different contexts was not a strength that Jane exhibited. She was unwilling to read beyond the requirements of the classroom and always chose to write as little as possible, unless the piece was scribed and/or copied and where sentence structure and spelling did not present a barrier to expression.

By the end of the data collection period, Jane had demonstrated skill in literal comprehension of what she had heard or read in a number of ways. She showed understanding in answers to questions and related activities. She was able to produce a coherent verbal retelling which reflected the original text in main ideas, detail and theme, but had difficulties in writing her ideas without substantial assistance. Jane demonstrated a "moderate level of comprehension" in that she was able to produce more than a list of unrelated items and to show some evidence of selection from text or speech to demonstrate her understanding.

Jane's attitudes to her own abilities greatly affected her literacy learning. She showed a generally very low self concept and hence lacked motivation in many classroom situations. Yet she excelled in mainstream art, a situation where she was relatively talented and could use a form of expression she had better control over than written language. Jane's hearing deficit, although not reflected in her adolescent speech, had affected her phonic development and may have been a major contributor to her difficulty in understanding letter/sound relationships and conventions in spelling. It is also evident that Jane was unable to express in writing her level of understanding of text and of her world in general, as shown by her success when able to use a scribe.

Jane's problems with both receptive and expressive language presented major blocks to her learning in all areas and in her general academic development. However, there were important gains made as a result of quality teaching in late primary and early secondary school. The relative success in these skills that Jane achieved was the result of a positive school environment, a sound individual program and a supportive family.
Discussion of influences on Jackie's literacy learning

Jackie in Year 7, was a capable reader. She was often the victim of pranks and teasing and did not cope well in social situations. She joined the IO class for Design and Technology and a Living Skills program. Jackie lived with a settled and supportive family and travelled to school by bus.

Jackie's mild intellectual disability, of unknown cause, showed itself most in her social skills, lack of ability to concentrate and slow cognitive functioning. It was detected early and appropriate placement in her early school years allowed for steady development. Her verbal skills were quite good, though not always used in appropriate or conventional ways. Jackie used print in a variety of ways. She was able to read environmental signs, recipes, newsletters, papers and the like. She had extensive knowledge of teenage fiction and popular authors and showed a love of reading, which filled most of her leisure time.

Although Jackie was able to read aloud accurately and had a keen interest in books, her ability to use what she understood was limited. She was able to recall stories she had read and speak about them, but had great difficulty in applying her literacy skills to other written tasks. Jackie's spelling was almost always correct, but her sentence structure was only loosely based on conventional patterns. She knew that sentences needed to be separated by full stops, but ideas often continued into one another in spite of her sentence definitions. She wrote in great detail at times and lost the flow of what she was writing.

The influence of Jackie's family was a significant one on her literacy learning. Her parents were very supportive of the school and interacted fairly closely with staff to address both the academic and behavioural issues which arose. This positive attitude might have also added to her high self concept and helped her cope with the pressures of school.
Jackie very much enjoyed adult attention and she frequently sought approval by asking questions such as "Is this right?" and "Do I know what I'm doing?" She constantly sought attention from adults, perhaps because she feared taunts and rejection if she approached her peers. In the classroom, she was very demanding of the teacher's time and usually was successful in gaining more attention than her classmates. Her appropriate placement in an IO class for most of her schooling contributed to meeting her literacy needs by providing her with the time and attention she required.

Jackie's lack of skills in interacting with others, particularly peers, was an element of her personality which greatly affected her daily life. Jackie had difficulty finding and maintaining friendships and did not seem to endear herself to the people she encountered. Her social difficulties manifested themselves in the classroom and in the playground and Jackie was often isolated. In spite of this, Jackie enjoyed school and coped with her lack of popularity. This may have been due to a lack of awareness of the attitudes of her peers or there may have been positive aspects of school such as adult attention and learning activities which outweighed the unpleasantness of the social interactions.

**Discussion of influences on Kate's literacy learning**

Kate was in Year 7 and relatively capable in language work. She was mainstreamed for English, but was very shy and quiet with little confidence in her own abilities. She had an unsettled family life and lived locally, travelling by bus. Early detection of Kate's delayed speech and subsequent learning difficulties led to the successful intervention of speech therapy. Her behaviour and lack of academic skills in mainstream infants classes led to psychometric testing and IM class placement.
In this situation, Kate was able to verbally express her needs more easily, and gain the security of a small class with more individual attention from the teacher. This resulted in good progress in all areas, especially in Year 4, but also some difficulties in later integration back into mainstream. When her parents divorced in Year 5, there was some evidence of a change in the patterns of her social behaviour with Kate becoming reliant on the social structure at school for friendships and support.

In secondary school, Kate's attendance in mainstream English classes affected her self esteem in a positive manner, leading to pride in the fact that she could cope academically, but it also removed the closeness and individual attention afforded her in the IM class. Kate's ability in reading led to a greater enjoyment of reading and hence marked progress in her development. Her difficulties in writing, however had the opposite effect in making Kate increasingly more reluctant to write until she was only writing from necessity. Kate used print in her everyday life to a limited degree in that she was able to read environmental words such as street signs and could fill in a form with her personal details, but did not actively seek written materials. She rarely chose to write, except from necessity and did not read as a leisure activity.

The key influences in Kate's literacy learning combined with her disability and naturally reticent personality and included her family, her class placement and her teachers. Kate's mother was a passive supporter of her literacy by co-operating with school programs and taking her for assessments where required, but did not provide a literature-rich environment at home or any great assistance with schoolwork. The divorce of her parents also appeared to be a significant event in Kate's life which was reflected in her learning at school. Kate was a girl who showed a reasonably fragile emotional state most of the time with a low self concept and a lack of personal confidence. In spite of these obstacles, she usually approached tasks at school with a positive attitude, provided she felt able to complete what was asked of her.
Kate benefited greatly from the security and consistency of special class placement as she found routine and a familiar environment conducive to learning. She found mainstream placement socially and emotionally challenging and performed better in an IM class. A major influence on Kate's literacy learning were her primary school teachers who supported her emotionally as well as academically and her secondary IM placement where she could perform to the best of her ability without feeling threatened.

**Discussion of influences on Mark's literacy learning**

Mark was in Year 10, with a very low reading/writing ability and a slight speech defect. He was reasonably successful in social situations but could become violent if placed in a restrictive situation. Mark participated in a work experience program, but had difficulties in maintaining honesty. He was mainstreamed for practical Design and Technology curriculum electives.

Mark's literacy abilities placed him roughly in the middle range of the IM class at Payton High School. He was unable to cope with the language level of mainstream classes, but could function adequately in a literate society. He used environmental print in a number of ways, including signs, notices, simple instructions and advertisements. Mark was capable of travelling around his local area successfully and used its facilities such as shops, transport, libraries and medical centres.

Mark chose to read for pleasure on occasions, but usually found other recreational pastimes more interesting. He rarely wrote unless it was required of him at school. Mark's speech, though loud and somewhat clumsy, resembled conventional patterns in its sentence structure and in his ability to clearly convey his meaning. In oral reading, Mark was able to pronounce words so that they could be understood and used a few strategies to decipher unfamiliar words. Mark's handwriting was large, but legible and most of his work could be read by others.
Mark had a very basic control of the conventions of written and spoken language, with verbal language more successful as a means of communication than written. He had a limited vocabulary compared to his mainstream peers and had a great deal of difficulty with formal grammar. His sentences were not complex, but he showed a relatively high level of comprehension of what he had heard and read and displayed confidence in his own abilities to use language across a range of subjects.

Mark took a small degree of responsibility for his own learning, in that he was usually willing to undertake and complete tasks that were asked of him, but he rarely initiated a learning experience for himself. He enjoyed the positive reinforcement that came from completing a task well, but learning for its intrinsic value was not part of Mark's motivation, a common characteristic of the IM and IO students I studied.

Mark's mother, while supportive in her attitude to his academic development, had experienced literacy difficulties herself, having spent some school years in a special class and did not provide a stimulating environment at home. There is the possibility that Mark's disability, which was of unconfirmed cause, may have been hereditary in nature.

Mark's disability was sufficiently apparent for it to be detected early in his school life, so he entered an IM class in Kindergarten, where he could work at his own pace with individual attention from the time he began to read and write. The results of this were that his self confidence was not damaged by constant failure to keep up with his peers and pressures of working quickly were not placed on him.

Although Mark's hearing problem affected his speech development at an early age, this did not persist as a block to his verbal development and he was able to communicate successfully from early primary school. His writing skills developed very slowly and remained limited by his knowledge of sentence structure, grammar and spelling. In primary school, Mark had two teachers for Years 3 to 6 who knew him very well and worked consistently with him.
He developed strategies for reading which included phonic decoding, recognition of sight words and use of context clues. His reading developed to a stage where he could use it for practical purposes as well as reading for pleasure. Mark's enjoyment of stories and love of books combined with his ability to learn by experience led him to reach a level of verbal, reading and writing competence with which he could operate reasonably well in a literate society.

**Discussion of influences on Max's literacy learning**

Max was in Year 7 and had a very low IM reading/writing level. He had difficulty working independently but accepted help readily. He lacked motivation and was often in fights, but had a following of friends. Both parents lived at home and Max travelled to school by bus.

Max's verbal delay was identified before he reached school age and was treated through speech therapy during his early years, with a high degree of success. His verbal skills reached a level where he could communicate successfully in most situations. Although they appeared to allow professional agencies to manage Max's difficulties more, his family was supportive in following through the recommendations that the speech professionals made in programs undertaken at home. Max's intellectual disability was of unknown cause and because of the lack of available information, it is difficult to gauge the influence of his innate ability on his literacy learning.

Max did not enjoy literacy activities at all and was very much aware of his own shortcomings in this area, as shown in his reluctance to read or write. This unwillingness meant a lack of practice in basic skills, such as comprehension, handwriting, sentence construction, spelling and punctuation. Max's IM placement in primary school was effective in preparing him, both academically and socially, for the high school setting. His IM placement in secondary school also allowed for his confidence level to build through the flexibility of his individual program and the small class size, ensuring adequate teacher attention.
Max's poor speech ability and his lack of willingness to use speech as a means of communication were detected in his toddler years and continued to be reflected in his literacy learning. Max's approximation to conventional patterns in reading and writing were limited to single letter/sound relationships and some common sight words. His pronunciation when reading, and spelling and sentence structure when writing, did not reach a level where they could be interpreted by anyone other than those who had worked very closely with him and recognised some of his own idiosyncratic patterns.

It was apparent that Max was acutely aware of what he perceived to be his inability to meet the expectations and attitudes of the people around him. This was evident in his lack of self-confidence and his unwillingness to accept help or show his work. I believe that this reluctance was a way to avoid being regarded as a failure. He used the same techniques for coping with not speaking well as he did with not writing well, mostly relying on others to communicate for him when it couldn't be avoided altogether.

Max used print to a small degree in his everyday life, in that he was able to read signs, advertisements, television guides and the like, but he did not choose to read for pleasure. My anecdotal records led me to believe that writing was such a difficult task for Max to undertake independently, that its use did not enter into his daily practice at all outside the requirements of the classroom.

I felt that Max's delayed literacy learning had a profound effect on his learning as a whole by not providing him with a means of expressing his ideas and opinions and by not allowing his confidence to work independently to develop. Max did not like to think of himself as dependent, which I believe was a reason for avoiding work and being reluctant to accept help.
Discussion of influences on Ros's literacy learning

Ros was in Year 8 and had low LM level language skills, needing constant assistance in writing, but was keen and willing to work. The family was settled with both parents and one Year 7 brother living locally, the mother often helping in the special classes. Ros did not make friends easily and was somewhat socially isolated.

One of the earliest influences on Ros's literacy learning was the intervention of speech therapy in Kindergarten. This six-month program initiated a period of rapid and significant growth in her verbal ability. Although she was still behind her age peers in this area, this therapy greatly increased her communication skills and allowed her to progress to the point where she could make herself understood.

Ros's family influences were also significant. Although her parents were unable to contribute to her development with modelling of reading and writing practices, they provided opportunities for her to pursue her own activities and encouraged her greatly with an active interest in all of her endeavours. Ros enjoyed having her mother at school and sometimes in her classroom and found this also a source of encouragement and acceptance of her abilities.

At school, Ros showed gains in literacy learning from the time she entered the LM class where she repeated Year 2. She seemed to respond well to the nature of the class in that with fewer children she was able to receive more individual attention from the teacher and teacher's aide. Her needs for constant acceptance, encouragement and assistance were more frequently met. The work Ros was asked to do was devised on an individual basis and suited to her existing level of ability, rather than attempting to reach a standard for a particular age group, which is common in mainstream classes.
In many IM classes, there is a large range of abilities and because of this, the teacher's expectations differ from one child to another, removing the pressure of competition. The importance of this to Ros was demonstrated when she attended some mainstream classes and indicated that she preferred the special class because she had difficulty "keeping up". Ros needed the security of total acceptance of all her attempts by teachers and peers to enable her to increase her risk taking behaviour in reading and writing and thus develop her confidence and skills.

Ros's literacy learning reached a stage by Year 9 where she operated at approximately average level for the IM class at Payton High School. She was able to communicate verbally, although her vocabulary was limited in comparison to her mainstream peers. Ros did not develop a large range of reading skills and tended to rely mostly on phonic attack for deciphering unknown words. However, she appeared to comprehend most of what she read and was able to demonstrate this both verbally and in writing.

Ros enjoyed print and the processes of reading and writing and often chose them as a leisure activity. She was able to use print to gain personal knowledge through reading text and environmental print such as signs and maps, newsprint, recipes and instructions. She also used print as a method of communicating to others through writing or copying letters, captions, recounts, reports, stories and poetry.

Ros was willing to take occasional risks in her writing and would attempt some unfamiliar words with help, with her invented spelling reflecting the conventional only in phonic proximity. This willingness was a particular strength of Ros's writing, showing developing confidence. She was quite adept at giving letters to represent single sounds, but had difficulty when trying to spell words which did not follow her phonetic logic.
Ros took a great deal of responsibility for the writing tasks she undertook, enjoying the production of a completed and polished piece. Although she was not always able to bring her work to the standard she wanted to on her own, she took the initiative to seek assistance in improving it. Ros read independently and of her own choosing on occasion, but did not attempt to improve her reading skills as conscientiously as her skills in writing.

Ros was quite dependent on those around her in developing her literacy skills, as she often sought help and approval from family, teachers and peers. She was keen to receive both assistance and positive feedback from teachers and enjoyed displaying her work to her peers. Both of Ros's parents were often aware of the work Ros had been doing at school because she chose to share it with them. Most of these significant people accepted Ros's performances as commendable and expected her literacy learning to continue as she progressed through secondary school. Ros showed that she believed she could fulfil these expectations through her consistent efforts in developing her literacy skills.

**Discussion of influences on Simon's literacy learning**

Simon was a Year 7 boy with a relatively low reading/writing level. He had very little confidence in his own academic abilities, but was very popular and socially capable. He experienced some behaviour problems and was often verbally defiant and abusive. Simon lived locally with both parents and three teenage brothers.

Simon's learning difficulties were not detected early, although his inability to speak was apparent. The speech therapy prepared for him was not followed through at home and Simon was late in starting school. Although early action may not have prevented Simon's difficulties, it may have influenced the path of his development. The lack of support for reading at home was a recurring theme in the data from preschool to secondary school.
Movement to an IM class in Year 2 was a positive change for Simon as he was not coping in the mainstream and improved academically and behaviourally in primary IM classes. Simon's behaviour was always a block to his learning. He showed evidence of emotional disturbance in his difficulty in controlling his temper and his inability to concentrate, especially in secondary school. In his reports, this was commented on more often than his academic achievements, so must have been a drawback in his daily school life, affecting the amount of time spent on his school work and his relationships with staff and peers. However, there was no evidence of testing for the causes of his behaviour problems beyond the requirements of special class placement.

Simon found going to his first high school very difficult and showed a definite improvement in circumstances at Payton, perhaps, as his mother stated in her interview, because of the influences of other students at the school who encouraged his misbehaviour. Simon was keen to impress his peers and was very much aware of their reactions to his behaviour. His quick temper, rough behaviour and emotional reactions gained the attention of his peers and he built quite a reputation at school.

He was also keen to impress teachers and often tried very hard in his classwork. When he produced something of quality, he was very keen to display it and gain appropriate praise. Simon experienced difficulty in coping with teachers outside the Special Education Faculty, but he reacted well to familiar surroundings and regular routines. The limited language skills that he did acquire were partially due to the work of his primary and secondary IM teachers and the assistance he received in class.

In reading, Simon's only strategy for deciphering words was phonic decoding. He had no recall of sight words and did not use picture clues or contextual clues. This made the process of reading very laborious and probably contributed to his dislike of it. Simon grasped many of the conventions of writing to a small degree, such as sequencing, use of appropriate vocabulary, creative ideas and limited sentence structure. Simon was very capable verbally and it appeared that his main block to successful writing was spelling.
His approximations to conventional patterns in reading and writing were limited by his knowledge of letter/sound relationships and his inability to build words or recognise common ones. In reading, he was usually able to make the initial sound of an unfamiliar word, but often could not proceed. Some of Simon's writing was phonetically close to convention, to the extent that it could be deciphered with some effort and his interpretation.

Details of the strategies used to teach Simon to read and write in primary school were not available and by the time Simon reached secondary school, his patterns of reading and writing were established and difficult to change. Simon made use of print in his everyday life through reading environmental signs, advertisements, labels and the like, but did not choose to read for pleasure or actively seek print. He did not write through choice and such activity was restricted to the written tasks that were required of him at school.

**Group C**

**Discussion of influences on Brian's literacy learning**

Brian joined Year 7 in the second year of data collection. His disability was of unknown cause and he was a non reader or writer. Brian was very capable socially and travelled independently in his local area, including to and from school. He had two older brothers, one younger brother and two younger sisters. Brian was well-behaved most of the time and well-presented. He mixed well with mainstream students.

Brian was limited in his literacy skills, in that he could read only simple familiar words and not decode new words successfully, but he managed to cope quite well without using reading both in the classroom and with day to day life. He had a number of coping strategies to employ, such as relying on others for transport, avoiding reading and writing tasks in class and seeking assistance as he required it.
Brian’s large family was a very close one and had a significant impact on his literacy learning. The low literacy levels of his father and two brothers may have guided the educational expectations that his family held for him, such as his mother assuming that he would not find employment. A positive aspect of Brian’s family life was that he had developed effective practical skills in coping with his limited literacy and was able to use them in everyday life. Brian was able to travel independently without reading and was very capable in practical situations such as shopping and recreational activities using his recognition of familiar places and environmental signs. Having close siblings also experiencing similar language difficulties provided Brian with models of how to function well in a literate society with limited skills.

Another aspect of Brian’s large family was that he rarely had to do things entirely independently. He was very reliant on his mother and brothers for help with schoolwork and there was usually someone available when he needed it. However, his mother was often busy with so many children to care for and may not have had a great deal of time to spend with Brian individually, as shown when she stopped reading stories to him due to the demands of two younger children.

The nature of Brian’s disability itself was a major contributor to the level of literacy learning that he reached in high school. His mental functioning was very slow and he may not have had the intellectual capacity to cope with the academic demands of school at any stage, despite teaching methods, the settings in which he learned or family influences.

At school, once he had been placed in the IO class and allowed to develop at his own pace, Brian began to make slow but steady progress. He needed more time than his mainstream peers to assimilate the learning experiences provided by the school, hence his early placement on an individual program in Kindergarten. When Brian was in infants and early primary school, he was constantly described as enthusiastic to work and eager to please. In spite of his efforts and those of his teachers, he did not appear to reach many academic milestones. As he grew older, Brian became progressively less willing to take risks in his reading and writing, developing a reluctance to write or read at all beyond what was required of him for school.
Brian was able to approximate convention in his reading and writing using his knowledge of letter/sound relationships, as a result of learning based in the classroom. When reading, Brian could say the sound of the first letter or two of a word and, similarly, in writing, he could write the first sound. Brian took little responsibility for his own learning, in that he rarely worked on his own but was very dependent on the teacher and the teacher's aide at school and on his mother and brothers at home for help with literacy tasks.

Brian had very good skills in coping with his disability and had an established social confidence gained from his family life and the learning situations he encountered at school. Although his global intellectual delay restricted him from further developing his literacy skills, there were many other aspects of learning where he succeeded quite well. Literacy skills which could be used in practical situations were taught in the classroom and practised at home. The school enhanced his limited natural ability in the use of practical language skills, particularly in the secondary school where Brian's strengths and limitations were recognised and an appropriate individual program devised to capitalise on his skills and to assist him in functioning well in a literate society.

**Discussion of influences on George's literacy learning**

George was in Year 9 and suffered from cerebral palsy. His vocabulary was quite extensive, but organisational skills were very limited. He was physically impaired so that fine motor movement (for example, writing) was very difficult. George had a troubled family life, his parents having separated and court involved with the financial settlement and ongoing support payments. He lived locally with his mother and younger sister who was mildly intellectually disabled. He travelled to school by bus and had difficulty maintaining friendships. George was using Ritalin to improve his concentration and to control behaviour, and participated in a work experience program.
George had been in special classes for moderate intellectual disability since Year 3. This placement was appropriate as his literacy progress was maintained and he was allowed the opportunity to develop at his own pace. He was quite capable verbally and had a good grasp of the structure of English. He was able to express himself clearly and coherently and use these skills in practical communication. George had relatively extensive language knowledge which he could express verbally, but this level of literacy was not matched by his written ability. George's cerebral palsy affected him both mentally and physically, in that his fine and gross motor skills were very limited while his intellectual functioning was in the moderate range of intellectual disability.

George could understand the concept of a sentence, as shown through his speech which was usually quite complex. He also had a reasonable grasp of phonics as the beginning letters he used for words were often appropriate. He knew that writing moved from top to bottom and left to right, but sometimes reversed individual letters. It was clear from comparing his verbal competence with his writing skills that he had far greater knowledge and understanding of language than his written work showed. In school, these verbal skills were enhanced through discussions and his limited writing skills were practised so that he could strive to reach his potential in this area.

George did not demonstrate an awareness that his disability made him less capable than or socially different from his mainstream peers and most people who dealt with him supported him in this. He was encouraged to participate in a broad range of activities such as peer support, sport and games, excursions and work experience in open employment. He was rarely disappointed in his own performance and this in turn increased his willingness to participate in all literacy endeavours. He appeared unaware that his literacy skills and levels of concentration were significantly below those of his peers.
Most of the time George was co-operative and keen to work, but outside influences hampered him. He was frequently troubled by the turmoil in his family situation and tended to bring these problems to school. George found these difficulties very hard mentally to put aside and they significantly influenced his frame of mind at school and hence the way he approached the tasks required of him in the classroom. He was easily upset and worried and experienced problems in the playground. These often took the form of teasing, both of and by George.

When he was particularly upset, George would refuse to attend class and problems escalated. George's behaviour and attitudes were very much guided by his emotional state at the time and his social stability within his peer group was very important to him. The success of the literacy work he undertook in class and in related activities was directly influenced by the attitudes he brought to it. The positive gains described in the anecdotal records were generally made when he was settled and happy at school, as when he was distressed, no class activities were completed.

George liked to work independently and tried hard most of the time, but became frustrated when success was not immediately forthcoming. He had difficulty in concentrating for any length of time and his work was slow. He accepted help readily, especially from the teacher or teacher's aide and tended to rely on them considerably. George experienced some family difficulties and these were reflected in his classwork through lack of concentration and distractedness. Although George's cerebral palsy was very physically limiting, a combination of home and school support contributed to his literacy growth and assisted him in developing ways of coping with his disability.

**Discussion of influences on Kevin's literacy learning**

Kevin was a Year 8 boy who spoke in single words, sometimes putting two or three together. He understood most of what was said to him and could copy a few letters and draw. He spent most free time happily alone. Both parents and three brothers lived at home and Kevin travelled to school with his father or by taxi. He participated in a work experience program.
Kevin's intellectual disability, the cause of which was not specifically identified was a most significant factor in his lack of literacy learning. It was sufficiently severe to restrict his literacy learning to the level of two and three word utterances, recognition of his name, enjoyment of picture books and the writing of a few recognisable letters. However, there were a number of other factors which prevented him from reaching the potential which this disability allowed.

Kevin's literacy skills had not progressed very far since early childhood. He spoke very little as a toddler and this did not develop much further as Kevin entered his teenage years. His verbal utterances were still limited to two or three words, although his meanings were often quite clear. Kevin's reading was limited to the recognition of his own name and a few simple sight words such as "Stop". Although Kevin was able to copy a little, his writing skills did not reach a level where they could be described as functional.

He enjoyed many text related activities in class, especially in his early secondary years and showed a particular liking for picture books. He responded well to appropriate teaching and specific attention to his learning needs. However, there was no support for his literacy or learning in general at home. His family did not use print on a regular basis, books were not easily available and the literacy levels of the rest of his family were only slightly above his own. Kevin's poor social skills were both a cause and a result of his low literacy level. He did not have the skills to interact with his peers or adults in his community and he was unable to use social situations to improve his verbal repertoire.
Even from primary school, this lack of family support for Kevin's education was evident, continuing throughout these years. In secondary school, when Kevin found school very difficult to cope with, he was simply removed, allowed by his parents to stay home and avoid the situation. At the time of this deterioration, there were no major changes which occurred at school for Kevin; no class, teacher or peer changes. It can only be assumed that outside influences, of which the school staff had no knowledge, were responsible for Kevin's decline in the latter half of Year 9.

**Discussion of influences on Martin's literacy development**

Martin was a boy in Year 8, with very low language ability. He was verbally limited and very reluctant to write, often experiencing behaviour problems in class. Martin lived with his parents, a sister in Year 10 and a baby brother, in a family under constant guidance from the Department of Community Services. He displayed very unsettled behaviour in class with the family under Department of Community Services guidance, a brother in Year 7 mainstream and a baby brother. Martin travelled to and from school by bus.

Martin's disability was detected early through the recognition by his mother that his speech and other expected developments had not occurred at the appropriate ages. This was probably not unexpected due to the high incidence of disabilities within the extended family. Martin's speech therapy in Year 1 improved this area significantly, but his overall development remained considerably delayed.

Martin suffered a deprived psychosocial background. His primary physical needs, such as adequate food, hygiene and medical attention were not always met. Hygiene was particularly significant for Martin at school, because it greatly affected his social standing with the other children. At times when he had to work alone outside the classroom, considering his lack of independence, the effect of this was at its height.
Although there was continual Department of Community Services intervention within the family, problems were so severe that major changes were very difficult to facilitate. The family rarely followed through with recommendations made to them, whether they were from social, medical or educational origin. Many of the interventions designed to assist Martin in all areas of his development lacked the support of ongoing attention. Martin's literacy development was not a priority for himself, his family or the agencies who tried to intervene in his care. Without primary needs satisfactorily met, the secondary need for adequate education did not come to the forefront.

Martin's literacy development remained fairly steady throughout the period of data collection. He seemed to have progressed as far as his mental capacity and home situation would allow by Year 6. Martin's performance at school was greatly influenced by happenings at home. His changes of mood, which always seemed to relate to his family, resulted in a lack of willingness to participate in classwork over long periods.

Martin rarely used print in his daily life. His limited reading ability made practical reading such as television guides, environmental signs and the like, impossible for him. Martin did not choose to write in any form and only undertook reading or writing activities when it was required of him at school. The only approximation to convention that Martin made in either reading or writing was his ability to match some sounds to their corresponding letters. He was able to make the initial sound of a word he was reading, perhaps the whole word if it contained only two or three letters and he could generally write an appropriate beginning letter for a word he had chosen.

Motivation was a problem for Martin who was reluctant to undertake tasks in literacy, especially when they involved having to think of and spell words of his own. Although he could be understood most of the time, his speech difficulties limited his vocabulary and affected the way he chose to write words and construct sentences. Martin did not take any responsibility for his own learning as he was intellectually incapable of instigating his own learning activities and such undertakings held no interest for him.
Martin's parents and teachers did not hold particularly high expectations of his academic development. His parents were limited in their own intellectual achievements and teachers were aware that other more basic needs must take priority. Martin's teachers generally recognised the extent of his literacy abilities and took into consideration the effects of his social problems and depressed home situation. Martin appeared aware of these negative attitudes of significant people in his life, but did not respond with change, possibly because it did not occur to him that his life could be different.

**Discussion of influences on Mitchell's literacy learning**

Mitchell, who joined the IO class at Payton High School in Year 10. He had a history of violently reactive behaviour and had changed schools frequently. He could recognise his own name and copy well. Mitchell lived with his mother and her partner, frequently attending respite care. He travelled independently to school by bus.

Mitchell's behaviour and social skills influenced his literacy learning to a very high degree. These behaviours were typical of the Fragile X Syndrome and it can be assumed that his medical condition was the main source of his behavioural and social disability. As a result of Mitchell's misbehaviour, he was unable to maintain stable relationships with family or peers and was unable to establish himself well in an educational institution. Mitchell did not stay at any one school long enough to develop his written literacy skills beyond his own name, some basic phonics and a few sight words.

Mitchell's written literacy learning did not progress beyond the recognition of simple words and his own personal details, although he was quite capable verbally. This was partly due to the effects of the Fragile X Syndrome on his mental functioning and partly due to his general inability to work independently, although it is difficult to pinpoint the source of the latter problem.
Mitchell did not use print at all in his daily life. He did not attend to environmental signs, written instructions or labels. He recognised containers and packets (of food, for example) by their appearance rather than by reading the label and was able to catch buses without reading their destinations because he lived in an area which had only one regular bus route. Mitchell did not choose to use print as a leisure activity and showed very little interest in improving his reading.

Mitchell's verbal use of language was very close to conventional speech. He was a very talkative boy, often talking to himself while occupied with colouring or tracing. He was able to convey his meaning well and had no speech impediments. In writing, Mitchell's only approximation to conventional patterns was in the recognition of some letter/sound relationships and his ability to copy text. However, he showed some willingness to write with a scribe and the results of this were often a completed piece of work of a reasonable standard.

Mitchell took very little responsibility for his own learning. He did not initiate any written activity, but always waited to be told what to do and how to do it. He rarely undertook any classwork without individual assistance and constant encouragement. He was very sensitive to the attitudes of others towards him and became very easily agitated. He responded well to gentle encouragement most of the time, but his emotional state was volatile.

Mitchell seemed to respond well in class to the study of literature and other forms of print. He enjoyed books very much and showed comprehension of what he had heard, but was unable to transfer this understanding to the written form. However, the basic skills that he did develop were derived from his reasonably extensive knowledge of language, which he demonstrated verbally. Mitchell's verbal skills reflected some very complex understandings of language and its structure, with an extensive vocabulary. It is difficult to determine to what extent Mitchell's written skills may have developed were it not for the Fragile X Syndrome.
Mitchell did not give any indication that he was aware of the expectations of significant people in his life. He had an unrealistic perception of his own abilities, and his expectations of himself changed frequently and were rarely realised. Emotional and behavioural problems also greatly interfered with his literacy learning. As a result of his unsettled behaviour, he had several changes in his family life, including changes of address and of family members living at home, attendance at respite care and an erratic relationship with his mother. His behaviour also forced him to attend three comprehensive high schools, none of which helped, ending in Mitchell being asked to leave the school.

**Discussion of influences on Pete's literacy learning**

Pete joined Year 7 in the second year of data collection. His moderate disability was of unknown cause. He lacked knowledge of personal care and was not supported in this area by his family. He was unable to read or write, but was always willing and enthusiastic. He coped very well socially and was popular with staff and students. Pete was taxied to and from school.

Pete's disability greatly affected his innate ability to develop in the area of literacy. His verbal skills, although slow to develop, far outweighed his skills with print which did not reach a level where they were of practical use for him, providing neither purpose nor pleasure.

Pete's level of ability fell much more easily into the category of moderate intellectual disability than into that of mild, as was first thought, both academically and socially. Pete's verbal skills were quite good and he was able to express his needs and opinions quite well. However, these skills did not transfer into the written form and his literacy skills remained at an IO level and with little discernible improvement during his secondary school years, with reading and writing ability minimal.
Pete's use of print was very limited in that he did not use print at all voluntarily and his understanding of environmental print was very low. He had developed some strategies for dealing with his lack of reading and writing ability by interpreting pictures and signs and by using available print, for example, copying his name and address from his bus pass. Pete's verbal skills closely approximated convention. He was very capable of transmitting his meaning when he wanted to, but he did not choose to speak frequently. In the written form, he was able to recognise and write a few common words, knowing many letter/sound relationships.

Pete took some responsibility for his own learning in his attitude towards schoolwork. He was always willing to attempt any work given him and do his best before asking for assistance. He enjoyed the work we did in class and always tried his hardest in homework and assignments. He was unable to initiate any literacy activities on his own, but he happily accepted any that were asked of him.

Pete's home environment was a significant influence on his development. The primary needs of adequate food, sleep, clothing and protection were not met by his family and their passive involvement with Pete's schooling showed that Pete could not rely on a great deal of personal support from his family in his learning. In spite of these adverse conditions, Pete maintained a positive attitude to his own learning and was always keen to try his best at whatever was asked of him. This attitude allowed teachers to work successfully with him regardless of the lack of academic support from home.

Pete's classroom placement and teachers were important factors influencing his literacy learning, limited though it was. He gained from school his enjoyment of print and books for their own sake and was given the opportunity to develop his skills. Pete was assisted in managing daily activities independently in spite of his disability, quite an achievement for a child with a moderate intellectual disability.
Discussion of influences on Warren's literacy learning

Warren also joined Year 7 in the second year of data collection. He was a slightly built boy with moderate disability of unknown cause and had one brother with mild intellectual disability. His parents were very protective of Warren and quite involved with the school. Warren was reluctant to take risks with work or play and had problems with poor attendance and occasional illnesses. He was unable to read or write, but tended to mix reasonably well with peers. He was taxied to and from school.

Warren's family did not become aware of his disability until he began Kindergarten. His mother claimed that his speech development had followed normal patterns and she was unaware of any other early delays. Warren did not attend preschool, but his learning difficulties became apparent very early in Kindergarten, and he undertook an individual program very quickly. According to the assessment in that year, his auditory comprehension was severely delayed and he had a very short attention span, both of which went unnoticed by the family.

Both myself as his IO teacher and the primary school teacher who taught Warren from Years 2 to 6 felt that his mother was overprotective, allowing him to stay home for extended periods without full medical reason, resulting in a great deal of time way from school. Warren's mother held an unrealistic view of his abilities and believed that he was much more capable than he was able to demonstrate at school. She was not realistically supportive of his reading at home, but inflated the level of activities he had undertaken at home.

The primary teacher raised the point that Warren's learning was not durable, that he would forget over a few days the gains he had made in class and the teacher would need to revisit the skills and knowledge covered. In secondary school, I did not record any major change in any aspects of Warren's development which could be called permanent learning. It is difficult to judge how much of this was due to Warren's innate abilities or his environmental influences of home and school or both.
Warren’s verbal abilities far outweighed his reading and writing skills, demonstrating that he had more knowledge of the systems of language than he was able to show through print. The very successful use of a scribe in class not only highlighted this fact, but also allowed Warren an avenue of written expression for his ideas. Warren rarely used print in his daily life. My observations indicated that, although he recognised a few environmental words, he was unaware that print held great significance for him. Warren did not choose to read or write for pleasure and was unable to undertake either task independently.

Warren’s speech was conventional in that he could make all the necessary sounds and convey his meaning, but his sentences were long and continuous and he usually took a very long time to make his point. His approximations in reading and writing resembled conventional patterns only in the correct matching of some letter/sound relationships. He was unable to read an unfamiliar word beyond sounding the first letter and he could write only the beginning letter of any word.

Warren took little responsibility for his own learning. He was very reliant on assistance and was not at all keen to begin any task without specific instruction. He rarely undertook any activity unless he had been asked to and I believe that this is at least partly due to the fact that he had little cause to take responsibility for his own welfare at home because he was attended to all the time.

Warren showed some indication that he was aware of the expectations of his teachers and family, in that he was concerned about the completion of homework and tasks in class, despite his reluctance to undertake them independently. He realised that his family expected little from him in the way of school-related tasks at home, but that they felt it was important to have homework and home reading completed. At school, Warren responded well to positive reinforcement and disliked being in trouble in class or in the playground, demonstrating an awareness and appreciation of the expectations of the school staff.
From my observations, there were a number of influences on Warren's literacy learning, including his initial intellectual disability of unknown cause, the influence of his family and the teaching and learning experiences he undertook at school. Warren's family had both positive and negative influences on his literacy learning; positive by providing interest in his learning, showing support of the school; negative by allowing such frequent and prolonged absences and overprotecting him. Other influences included his class placement, in IM rather than IO, and the influence of the same teacher for five years in primary school.
CHAPTER 5  THE UNIQUE NATURE OF THE LEARNER

Introduction

Based on the 19 case studies and their resultant literacy profiles a number of themes emerged. These relate to the unique nature of the learner, home and family factors and school issues. The following three chapters will highlight each of these aspects of literacy learning of mildly and moderately intellectually disabled students. Chapter 5 focuses on literacy learning and the unique nature of the learner, taking into consideration a) disability and medical considerations; b) memory and concentration; c) logical thought; d) language processing; e) behavioural considerations; f) self concept and confidence; and g) attitudes.

For the students in this study, the nature of their disabilities and medical conditions limited their potential for achievement in many areas, as did the time in their lives at which the problems were identified and acted upon. Cognitive aspects of learning which were particularly significant for literacy learning in the classroom included memory, concentration, logical thought and language processing.

In the processes of learning, particularly in the areas of reading and writing, students' ability to concentrate and remember what had been said and read greatly affected the development of their literacy skills. Logical thought, that is, their ability to make cognitive connections between information received, was an important aspect in their processing of verbal and written language. The effectiveness of language processing was influenced by the complexity and speed of cognitive functioning, the nature of the home environment, the effectiveness of teaching and learning experiences, difficulties caused by emotional disturbances and the levels of students' personal independence.
Students with mild and moderate intellectual disabilities often demonstrate a lower level of emotional control than their non-disabled peers. This can result in behaviours and attitudes which affect their relationships with others and their work in class. Social and emotional states, in conjunction with innate ability, personal characteristics, medical conditions and schoolwork shape the quality of the learning experiences. This chapter will examine these influences for the students studied in the light of evidence presented in the literacy profiles, available on CD in Appendix A.

5.1 Disability and medical considerations

Eleven of the 19 students involved in the study were identified with a mild intellectual disability of unknown cause. Clive, Jackie, Jane, Karen, Kate, Mark, Martin, Max, Ros, Shane and Simon all showed in their early assessments a mild delay in cognitive development in all areas of basic literacy, numeracy and general knowledge. The other eight students in the study fell into the category of moderate intellectual disability.

As much of learning to read and write involves knowledge of the specific sounds in words and patterns of speech, a hearing deficit can mean that vital phonic connections and aural discrimination between sound and symbol are not made. In this study, Jane, Jackie and Mark showed evidence of having this problem. These difficulties impeded literacy learning by making reading and writing tasks in class more challenging. Jane and Jackie both found it difficult to express their thoughts in writing, while Jane and Mark had the obstacle of hearing loss which affected literacy ability from an early age.

Jane's disability caused a mild intellectual delay with a significant delay in literacy. Her hearing deficit remained with her and was managed with hearing aids. However, her hearing did not reach a normal level and directly affected her literacy learning, particularly in the area of phonics, where clear auditory discrimination is vital. Mark's glue ear was treated with grommets and was not an ongoing problem.
Both Mark and Jane had the added difficulty of poor fine motor control, again a condition which did not significantly improve through high school and was an impediment to the whole writing process. Jackie experienced problems in fine motor control which continued throughout her schooling and resulted in large immature handwriting. The other eight mildly intellectually disabled students in this study displayed no specific medical problems.

George, Martin, Micky and Mitchell showed more well-defined reasons for their disabilities. George was born with cerebral palsy which was diagnosed at birth and indicated a moderate global disability with physical disabilities, including poor visual discrimination and difficulties in fine motor control, affecting his ability to read and write, as documented through various medical and school reports. George's written skills remained well below his verbal abilities.

Martin was diagnosed at three years of age with a mild global intellectual delay as a result of organic brain damage, as indicated by brief medical records which were forwarded to the school and were available for this study. He also had a severe speech delay, which was described as his most significant problem, especially in the area of articulation. Problems in speech affect the ability to process language and influenced the path of Martin's reading and writing development by not allowing him to fully make the phonic connections between print and sound. His family had, for at least two generations, a series of disabilities including mild delay, psychiatric problems and physical disabilities, which had a significant impact on the literacy environment Martin grew up in.

Micky suffered a serious head injury at nine weeks of age, causing a cerebral haemorrhage which resulted in moderate global intellectual slowness. Mitchell was born with Fragile X Syndrome, which became evident in other members of his extended family when he was a child. This manifested itself in a moderate global delay with autistic behaviours. Both these conditions had a significant impact on the extent to which literacy skills could be acquired. In these two relatively extreme cases, the disability was the main factor influencing the development of literacy learning when compared to other influences.
Pete and Warren were assessed with moderate delays of unknown cause. Both Brian's and Eric's global intellectual delays were also of unknown cause and were described in medical and school reports as major contributors to their lack of literacy learning. Brian's lack of fine motor control presented some difficulties in his early learning, but had improved significantly by Year 2. Kevin's early assessments showed a moderate intellectual disability, as described in Figure 5.1, and both of Kevin's brothers had mild intellectual delays, indicating the possibility of hereditary or environmental influences on their development.

Kevin was tested at age 7 at school. He was extremely reluctant to separate from his peer who escorted him to the testing location. It was more than half way through testing before Kevin would say anything at all. Verbalizations were very limited if remained so throughout testing. Sounds were very muffled and expressions were never more than 3 words long. Quiet results were within the moderately delayed range. Placement at this school appears appropriate.

Figure 5.1: School assessment of Kevin's cognitive functioning in Year 1.

Eleven of the students experienced medical problems which affected their literacy learning to varying degrees. Shane and Clive both suffered mild epilepsy which was satisfactorily controlled by drugs at an early age, but might have affected their early learning by limiting concentration. However, these were not chronic problems and did not affect later learning.

Eric, although his eyes were physically sound, had some difficulty in visual discrimination at an early age, making differentiating between symbols difficult, but this problem did not remain. Karen and Mitchell showed that they had difficulty with fine motor control, affecting their abilities to write and impeding their literacy learning in written expression throughout their schooling.
Max, Martin and Pete were diagnosed with significant speech problems affecting their language development in their early years. These early impediments greatly affected the long term literacy learning of these students, as the foundation skills and knowledge were not consolidated early. Micky also had minor vision and speech problems with poor fine motor control which might have affected his ability to process verbal and written language.

Simon experienced problems in early visual discrimination and speech development, but these were not long term difficulties and his literacy progressed to a relatively high level. Warren's minor difficulties in speech and fine motor control were also reported in the data, but were not as significant as his global intellectual delay as a factor influencing literacy learning.

Six of the students in the study did not show signs of medical problems unrelated to their disabilities. They were Brian, George, Jackie, Kate, Kevin and Ros. The others demonstrated medical conditions in conjunction with their diagnosed disabilities which were significant influences on their literacy learning.

**Summary**

Individual disabilities and medical problems affected the cognitive development of the students in the study and their literacy learning. Each disability itself was different and presented different challenges for every student. Specific examples of medical problems included epilepsy, cerebral palsy, head injury, glue ear and Fragile X Syndrome, which led to a variety of problems such as visual, hearing and speech impairments and poor fine motor control.

Generalised brain damage caused global delays in intellectual functioning, resulting in limited progress in reading and writing. Specific medical disabilities included cerebral palsy, Fragile X Syndrome and epilepsy. Cerebral palsy resulted in difficulties in fine motor control and visual discrimination, leading also to limited reading and writing development. Fragile X Syndrome had a number of manifestations which restricted literacy learning and epilepsy affected concentration and sustained engagement with literacy activities.
One of the more prevalent medical conditions which had specific impacts on literacy learning was hearing impairment which affected speech acquisition and, consequently, the development of reading and writing skills. The nature of each child's disability and existing medical conditions are significant contributors to literacy learning and must be considered in assessing the whole child.

5.2 Memory and concentration

Memory and concentration are highly important factors in any learning situation, especially so in literacy learning as reading and writing are skills which need sustained concentration and memory recall in order to gain meaning. The ability to concentrate in class and to retain learned skills and information was a theme which surfaced regularly in this study's data as a major block to literacy learning. Of the group of 19 students, there were only four (Clive, Kate, Max and Shane) who did not demonstrate difficulties in these areas, indicating that poor memory and limited concentration were common in this group and greatly affected classroom learning.

Difficulties in concentrating during the early school years featured frequently throughout the literacy profiles. Brian was described by his early teachers as having a short attention span, as were Eric, Jane, Karen, Kevin, Mark, Martin, Ros, Simon, Warren and Jackie, showing that their early childhood teachers were aware of this impediment to learning.

The issue of both short and long term memory and its effects on literacy learning was prominent in the literacy profiles of Brian, Simon, Micky, Eric and Jackie. Brian and Simon had poor memories, both short and long term, and a minimal recall of simple words which affected their reading skills. Micky had an excellent long term memory but poor short term memory. He was able to recall details of events, but was unable to maintain the required train of thought through a reading or writing exercise. Eric and Jackie, who were two of the more competent readers in the group, demonstrated excellent memories with Eric particularly capable of recalling fine details from text.
Difficulties in sustained concentration were more pronounced for George, Micky and Mitchell. George found continued attention to his surroundings very difficult. He showed severe distractability and lack of concentration and his teachers found it difficult to focus his attention on the task at hand. This problem was so severe that George's doctor prescribed Ritalin to remedy his condition. The results of this medication were an improvement in short term concentration and behaviour, but mental focussing remained a block to George's academic development throughout his schooling.

Micky experienced major difficulties in concentrating in class in his early school years and underwent drug treatment for this problem. The use of Dexamphetamine resulted in great improvement in Micky's ability to concentrate and allowed him to remain on task for extended periods of time, as well as improving his behaviour.

As a result of Fragile X Syndrome, Mitchell, too, found extended concentration almost impossible. He was very easily distracted and sometimes became obsessed with ideas or problems outside the classroom and was unable to shift his focus to the task at hand. This condition was also treated with Dexamphetamine, with minor improvement. Mitchell's memory was reasonably good, both short and long term, but he had very little patience and could not maintain concentration on more than very short tasks.

**Summary**

Almost all of the students in the study experienced problems in memory and concentration to varying degrees and they were frequently referred to in formal and informal records of the students' development. Lack of sustained concentration in class was often linked to the students' abilities to control their emotional reactions to difficulties they encountered both at school and at home. In some cases, drug therapy was very beneficial, but for most students, difficulty in concentrating restricted the positive impact of learning activities and required the teacher to provide programs to improve and/or manage these problems and build successful working relationships with students.
Although there were no specific interventions other than drug therapy, the individual programs devised for students took into consideration all aspects of their learning capabilities. Difficulties in memory and concentration were dealt with by including activities designed to improve memory, extend concentration and produce logical thought.

5.3 **Logical thought**

Complex thought processing was linked to the skills of sustained reading, maintaining the thread of a writing exercise and utilising self correction, an important skill in both reading and writing. In this study, each student's mental processes affected their literacy learning in many idiosyncratic ways. The tasks of speaking, reading and writing follow logical and sequential patterns. These need to be maintained in order for meaning to be gained from language. When students have limited cognitive functioning which does not allow them to think in regular and repetitive patterns, the practices of using literacy as a tool for communication become very difficult. Literacy competence is clearly linked to cognitive processes such as pattern recognition, sustained trains of thought, knowledge of language processes and level of complex thought.

The majority of students (11 out of 19) displayed generally poor logical skills including lack of organisation, difficulty following instructions, inability to solve problems in a logical manner and a lack of understanding of cause and effect. The processes of reading and writing are very dependent on these cognitive skills and deficits in these are distinct influences on literacy learning, as shown in the literacy profiles.

Brian was described in Year 1 by his teacher as having very poor logical skills and found it difficult to make the mental connections that his IM peers could, resulting in his need for help in organising himself and following simple instructions. This was impaired to some degree by his lack of complex thought processes.
By the time I collected data in Year 7, he showed that he had significant problem-solving skills by consulting charts around the classroom for information he needed, showing development of thought processes over those years. For example, if Brian had difficulty spelling he would look around the room to see if he could find the word before seeking assistance. This illustrates how aids such as these assisted Brian in developing independence in using his limited literacy skills.

From my observations and anecdotal records, I concluded that Eric had extreme difficulties in logical thought, understanding cause and effect and following verbal instructions. He was only able to undertake tasks one step at a time and had great difficulty in understanding concepts such as "on", "above" and "before". This showed Eric's difficulties in complex thought and its relationship to language processes.

An example of this was a task that Eric was asked to perform during work experience. He was requested to put potatoes into 10kg bags and tie them at the top. Eric put one potato in each bag, tied them and set them in a neat line. He took this instruction very literally and did not make the cognitive link between what he was doing and what he would ordinarily see in shops. Eric's receptive skills of listening and following instructions were significantly below his expressive skills of talking and writing, possibly due to difficulty in mentally processing external information and sustaining a constant train of thought.

Although there was little conclusive evidence for this, as I spent a great deal of time with Eric, I could see a major difference in the level of complexity of thought between what was initiated by Eric and what required external input. For example, his recounts of personal events were detailed and sequential, but he had great difficulty in mentally ordering, then carrying out instructions given to him, whether verbal or written. This knowledge of Eric's thought processes was useful in identifying his needs and designing literacy activities for him as it gave me an insight into how he processed verbal and written language.
Mark was described by both his primary and secondary IM teachers as having problems with logical thinking, following verbal instructions, sustained reading and writing independently. These problems appeared to be connected to his level of cognitive functioning and continued through school, including the period of data collection. His difficulties included poor pattern recognition, lack of sustained and complex thought and a limited knowledge of language processes.

Max, Martin, Ros, Shane, Simon and Pete worked in class at a very slow pace and had difficulty following written instructions which were written within their ranges of reading skills, showing deficits in pattern recognition and sustaining trains of thought. This restricted the levels of independence in literacy that they were able to attain. Micky also worked very slowly and couldn't follow more than very simple verbal instructions. The effect this had on his literacy learning was that there was little Micky could undertake without direct instruction and independent learning was not an option for him.

Warren's mental functioning was extremely slow in all areas and he showed a poor ability to process verbal information leading to minimal development in receptive literacy skills, although he was quite capable of expressing himself in speech. Warren's learning did not tend to be durable. He would master a particular task on one day and show repeated competence in it, but after a few days away from school would find the same activity totally unfamiliar.

The other eight students fell into two groups, showing varying characteristics of logical thought. In the first group, George fell into a category on his own as he displayed evidence of both strengths and weaknesses in logical thought. He was unlikely to ever read or write independently and had difficulty making decisions, but at times he showed remarkable knowledge of English, for example when he suggested the word "swanling" in class when we were discussing terms for animal young.
He gave very accurate and eloquent answers to comprehension questions and his listening skills were good when he was concentrating. George demonstrated knowledge of language processes and evidence of complex thought but was unable to translate these to the written form. George's verbal comprehension and memory skills were quite good. He knew many abstract word meanings and, although it did not transfer to written skills, George showed extensive language knowledge.

Clive, on the other hand, was the only student who demonstrated consistently complex thought processes. Clive showed evidence of complex thought as he operated in the classroom well above the IO students and in some areas, such as reading, above his IM peers. The main problem for Clive was the slow speed with which he undertook activities, but there was evidence of pattern recognition in his fluent reading and sustained trains of thought in his high level of comprehension. In some of his creative writing, he showed detailed temporal awareness, self correction, opinion and abstract thought as shown in Figure 5.2.

Figure 5.2: Story written by Clive, and collected during the period of data collection, about his holiday activities.

For both Kevin and Mitchell, evidence of the extent of logical thought was masked by other difficulties. Kevin's intellectual disability was so severe that it did not allow him to express his thoughts beyond single words and rarely through actions, so the level of his cognitive functioning, although very low, was difficult to gauge specifically.
Mitchell's cognitive functioning was often masked by his emotional disturbance but when he was settled and not angry he showed that he had a reasonably high level of verbal comprehension and was able to follow spoken instructions when he was willing. The Fragile X Syndrome tended to cause fast and frequent mood changes, so his cognitive development was difficult to track.

The final group of students was one for whom logical thought did not stand out as a major influence on literacy learning. Jane, Karen, Kate and Jackie did not show particular strengths or weaknesses in the area of cognitive development, although they all found following verbal instructions very challenging if more than one instruction were given at a time. Jane demonstrated very slow development of verbal comprehension skills, perhaps as a result of her hearing deficit.

In writing, these students, with the exception of Jackie, could generally remain on task with guidance. However, Jackie experienced difficulty in remaining focussed on a single train of thought. When she was writing she often wrote on a tangent or about something completely different to the required task, totally losing touch with the text with which we were working, a vital part of reading comprehension.

**Summary**

The ability to sustain a train of thought was important in relation to these students' literacy learning as it affected the selection of tasks that were appropriate for them and limited their abilities to work on them independently. Yet, there was evidence in the literacy profiles that many of the students were able to demonstrate levels of language knowledge well above that which they were able to show in reading and writing. This was a valuable observation used in devising individual programs which capitalised on the relative strengths of students' logical thought to enhance their literacy learning.
The aspects of logical thought processing which most affected literacy learning were pattern recognition, a necessary skill in reading, and sustaining thought processes, vital to both reading and writing. The complexity of these processes is also an important factor in developing organisational skills, problem-solving and the recognition of cause and effect.

5.4 Language processing

The language processes necessary for continued literacy learning include phonemic knowledge and its practical application, comprehension of what has been heard and read and knowledge of language conventions such as sentence structure, grammar and spelling. It is these processes which are the focus of this section, where students are grouped according to the difficulties they experienced.

Clive and Shane were the only two students who demonstrated competence in all three areas of language processing: using language conventions, applying phonemic knowledge and comprehension. Clive was a capable oral reader who demonstrated sound comprehension and read for pleasure. In his writing, he showed more than a basic knowledge of sentence structure. In most literacy activities, Clive showed evidence of complex cognitive functioning and was more capable than most of his IO and IM peers, demonstrating that his actual skills in language processing were close to that of a mainstream level.

The only aspect of Clive's mental processing which prevented him from coping with mainstream placement was the speed with which he worked. Clive had a good memory and was able to use this to sustain his writing and his reading comprehension. His home was a positive environment where he was able to learn that print was valuable and enjoyable.
His lack of confidence in his own abilities was likely to have stemmed from his lack of speed rather than skills in literacy and also contributed to his low level of independence shown in the classroom. Throughout the period of data collection, I observed that Clive took particular pleasure in writing creatively, especially suspenseful or "spooky" stories. He took a very long time to begin a task and could use a full hour to write a paragraph, but the product was usually complex, entertaining and accurately written (Figure 5.3).

![TRICK OR TREAT](image)

The door clicks open. The rumbling comes up loud and light clashes into our eyes.
He looks in and see a body lying on the floor. He creeps down towards the body and we... thought we saw the face of John. When he looked at the face but it wasn't John. It was Aunt May. The blood was all over her body with a axe on the top top of her head.

**Figure 5.3:** Imaginative story written independently by Clive.

Shane was competent in both speaking and reading and demonstrated cognitive skills well above his IM peers, which he showed through the speed and accuracy of the work he performed in class. Although he was quick, independent and accurate, he was socially and behaviourally unable to cope with mainstream placement. Shane's literacy profile indicated that he was a relatively capable boy academically, but impeded severely by his emotional outbursts.

Mark and Max showed general difficulties across all areas of language processing, but less severe than those experienced by the others in the study. Mark operated cognitively in the mid-IM range; in his IM class, there were several students both more and less capable than himself in the areas of literacy, numeracy and living skills.
By Years 8 and 9, he showed that he had developed sound oral comprehension skills through his ability to retell what he had heard, sensibly and accurately sequenced, indicating that his hearing problems had been successfully managed by this stage, a result of positive medical intervention and appropriate teaching and learning experiences. His reading skills were developing and he had reached the stage of independence, but the pace of both his reading and writing were very slow.

Max also remained appropriately placed within the IM class, with similar skills to Mark, but he was less capable in the area of comprehension of written material. Reasons for this were difficult to ascertain, as they related to his brain injury, the effects of which were not clearly defined.

The students for whom knowledge of the conventions of language such as sentence structure, grammar and spelling presented the greatest difficulties were Eric and Ros, who showed some control over phonics and comprehension. Eric's global intellectual delay appeared to be the most significant factor in his limited language processing, especially in writing. He had a very positive home environment and worked particularly well in the IO class. He was a competent oral reader with a very good memory, but his comprehension was limited to literal interpretation, shown by his long and detailed retellings. He spoke in complex sentences which were repetitive and at times difficult to understand and his writing reflected these patterns. Eric demonstrated a very limited range of writing styles, sentence structures, vocabulary and grammatical options. He always wrote in a similar manner, using repetition, drawing from a small bank of familiar words and little punctuation.

Ros could communicate well verbally, but had difficulty in reading independently. She was able to understand sequencing in text and retell a main idea. Ros preferred to write rather than read, but found spelling a major block to her written expression. Ros's general global delay also appeared to be the most influential factor in her literacy learning. Her family situation provided both positive and negative influences, with her mother's enthusiastic involvement at school but limited abilities. Ros developed her skills well as a result of sound teaching and learning in the IM classes she attended.
For George, Simon and Brian, phonic knowledge and its application was one of the biggest blocks to literacy learning. George was able to identify letters in isolation and match them to their associated sounds, but could not use this skill in reading, showing limited application of phonic knowledge. While reading with assistance, George was unable to recognise a word which he had read and was repeated in the same sentence. However, George showed that his cognitive functioning was well above what he could express through reading and writing, with quite advanced listening and speaking skills. He knew many abstract meanings of words and showed extensive language knowledge which he was unable to transfer to the written form, a problem mostly due to the physical limitations of cerebral palsy.

Simon's reports through primary and secondary schools reflected slow progress in basic literacy skills. He was unable to read independently, but showed good verbal comprehension. At home, Simon interacted verbally with his family, but was not particularly interested in the activities provided for him in the classroom. Through primary school he had become accustomed to not achieving in school as well as he would have liked and tended to avoid potential failure in high school through non-participation. This verbal communication ability did not transfer to the written form and Simon was unable to write independently.

Brian showed very limited literacy learning throughout his school career. He was unable to read beyond a few familiar words demonstrating poor phonic knowledge, but his verbal skills were sound and he was a capable communicator. Brian was reluctant to write as he could not select more than the first two letters of a given word showing that he had little ability in using phonic knowledge. In trying to write his own stories, his sentences were very simple, and very much impeded by spelling problems, a result of limited knowledge of language conventions.

Brian's home environment was not one where print was used frequently, limiting his exposure to written language conventions. When he had a scribe to write for him, the sentences he dictated were much more complex than he was able to write for himself. This indicated that his knowledge of language processes was far greater than his reading and writing skills would imply.
Figure 5.4 shows a piece of writing by Brian without assistance until proofreading. Figure 5.5 shows a contrast in a piece which he dictated to a scribe and then copied in his own handwriting.

The boy went on a holidays 2.7.92.

on his ship he saw the island. He got a shovel and he had to dig.

He found gold and had to put it on the ship. His father told him to put a sheet of the flag.

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Figure 5.4: Story written independently by Brian about his holiday activities.

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He got a magic bike which could go by itself really fast. The boy and his bike saved Mike’s holiday.

Shop from a nasty banker, who wanted to build on it.

In the end, the bike became magic for another boy.

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Figure 5.5: Story dictated by Brian to a scribe, then copied in his own handwriting.
In the cases of Jackie, Karen and Micky, language conventions and phonics were relatively well-developed but they did not display corresponding levels of comprehension. Jackie was a capable oral reader who was able to identify many words in texts which were suitable for her age, demonstrating competent use of knowledge of phonics, but there was very little evidence of comprehension of what she had read. Jackie was unable to predict what might happen in a story or retell in sequence what had happened. In retelling or answering text-based questions, she tended to rely on her memory rather than refer to the text, a practice which was not usually successful. She experienced limitations in her levels and speed of mental processing, including memory and was very much impeded by social and emotional disturbances and a lack of personal independence.

Karen was very capable and confident in verbal situations, but these receptive and expressive skills with language did not transfer to the written form. She was reluctant to read, had limited skill and was unable to comprehend beyond literal interpretation. Karen experienced several difficulties at home which interrupted her literacy learning through absences from school and her home environment was not conducive to literacy learning. Her reading and writing were also very slow. Kate experienced the same difficulties in applying her verbal skills, which were quite competent, to writing. This was the result of a number of interrelated factors including emotional and behavioural disturbances, disrupted early schooling and influences from the home environment.

Micky demonstrated very good oral reading skills, but lacked the comprehension one expected to accompany it. His comprehension of the spoken word was very good and Micky spoke in full coherent sentences, demonstrating that his knowledge of language far exceeded what he could show in the written form. Micky's global delay was influential in his limitations in processing language, but he had a very positive home environment and responded particularly well to activities in the IM and IO classes he attended.
A large group of students (six out of 19) experienced major difficulties in all three areas of language processing with a variety of possible influences contributing to their delays in literacy learning. Jane was able to recognise some letter/sound relationships but could not use them in reading to decode words and had difficulty in comprehending verbal or written information. Although Jane's speech and vocabulary knowledge were well-developed, she had significant problems in expressing herself in a written form. She showed some creative flair in her ideas for writing, but was severely blocked by spelling and grammatical difficulties which might have stemmed from her hearing deficit (Figure 5.6).

The story is about a girl have a Magic Finger and the boys framed got to go kelling the duck and the girl go hear magic finger on the boys to stay then kelling the duck so they got to tell into a bride and that was the end.

Figure 5.6: Retelling of a story segment written independently by Jane.

Kevin's cognitive skills were difficult to make a judgement on because of his lack of expression in any form. However he did show some comprehension of what he had heard and a little language knowledge, as shown in the example below where he demonstrated that he knew print form well enough to recognise that letters were meant to be in the blank spaces (Figure 5.7).
4. Stanley's parents' names are Mr and Mrs Lambchop.
My parents' names are Mr and Mrs Kevin M/em chub m/r.

5. Stanley's brother's name is Arthur.
The people in my family are:
my mee e/m e/m.
my/myes 

Draw your two favourite family members.

\[\text{Figure 5.7: Comprehension exercise completed independently by Kevin.}\]
Martin's literacy learning was not as high a priority for his carers and teachers as was his personal care, safety and independent living skills, hence much of the written information on his development focussed on these areas rather than literacy, which remained steady through the time of data collection. He was unable to read or write independently without significant assistance and had only very simple comprehension skills. Again, it is evident that a number of influences were responsible for this, the most significant being a combination of Martin's global intellectual delay and his deprived home environment.

Mitchell had very limited literacy skills, but used verbal language quite competently. He was able to actively participate in class discussions about familiar texts, predicting, retelling events, etc, but was unable to read or write at all independently, mostly due to the effects of Fragile X Syndrome. Pete's fairly limited cognitive abilities were displayed in his speech, which was very simple, using a small range of vocabulary in three or four word sentences. He was able to recognise his own name, but had no further reading skills.

Pete was able to copy, but often reversed letters in words such as "on/no" and "train/trian" and could not read back what he had written. Most of the advances, small but important, in Pete's literacy learning, were due to the individual programs he worked with in his special classes. Pete's home environment did not support his literacy learning and may indeed have hindered it through lack of primary care.

Warren's verbal competence showed a level of cognitive skill not reflected in his reading and writing skills, which were minimal. His primary school teacher claimed that he found reading almost impossible in spite of a number of different methods and interventions over time. He could copy and trace with accuracy most of the time, but was unable to write without a scribe. Warren's disability and his family were particularly influential in his literacy learning. He was innately limited and not encouraged to develop his own independence. School was not as influential as it perhaps could have been due to frequent and extended absences.
**Summary**

Language processing is a particularly important factor in literacy learning and influenced by many aspects of the students' lives. These influences were different for each student and must be examined in the learning contexts they experienced and in conjunction with each other.

Almost all of the students in the study performed better with verbal language than with written form, with some showing considerable knowledge of language which was not evident in the written form. This demonstrated that not all knowledge of language and its intricacies was demonstrated through the skills of reading and writing. Knowledge of this type was particularly useful in devising individual education programs which capitalised on the cognitive strengths of each student.

**5.5 Behavioural considerations**

Students with mild and moderate intellectual disabilities often have more severe and more frequent behavioural problems than their non-disabled peers. In this study, it was noted in the teachers' formal reporting to the parents that the behaviours, emotional states and social difficulties of the students frequently took precedence over their academic development. In many cases, it was necessary to work on students' life skills, such as coping with other people and dealing with personal emotions, before the higher order knowledge and skills of the curriculum were able to be addressed.

Most of the school reports were brief and, in some cases when behavioural and emotional problems severely hampered progress, they tended to comment only on this area and did not refer to progress in academic learning. As a result, in cases where these problems were severe, there was often little evidence concerning the processes of literacy learning in the students' records.
Mitchell's uncontrollable temper, for example, led to two high schools asking him to find a placement elsewhere. A violent attack on another student at Payton High School was directly responsible for Mitchell permanently leaving school in Year 11, effectively ending his chances of continuing formal education. Mitchell's behaviour impeded his learning, in that he was frequently distracted by thoughts of incidents which had upset or angered him outside the classroom, preventing him from focussing on his schoolwork. He often became engrossed in objects on his desk and found it impossible to direct his thoughts to the task at hand, a characteristic typical of students with Fragile X Syndrome.

Mitchell's literacy level was very low as he could only recognise some letter/sound relationships and a few sight words, but could not read or write full sentences. This was primarily due to the effects of Fragile X Syndrome, as were his emotional and behavioural difficulties. Consequently, his unsettled behaviour, frequent absences and changes of schools, inability to focus in class and poor social relations influenced his ability to learn basic literacy.

Other students for whom behavioural, social and emotional problems were sufficiently present to impact on their learning were George, Jackie and Martin. George suffered from cerebral palsy, a condition in which intellectual delays and emotional instabilities are common and expected. He was frequently troubled by turmoil within his family and tended to bring these problems to school. In class, he sometimes found it difficult to put these aside mentally and concentrate on his work.

George was a talkative boy and had a greater control of verbal language than his reading, writing and physical skills would imply. Occasionally during the period of data collection, as shown in the anecdotal records, he used quite complex language structure and a wide vocabulary. He also had a quick temper which he had difficulty controlling at times. This lack of control often resulted in verbal and physical abuse of students and teachers, running way from school and occasionally inflicting physical damage on himself. George's literacy learning did not progress much further than Mitchell's, partly because of the effects of his disability and the emotional and behavioural states that he brought to classroom learning situations, which limited his participation in literacy related activities.
Jackie's behaviour and emotional reactions to the world around her had a major impact on all aspects of school life, including literacy learning. Her disability showed itself most in the area of social interaction. Her teacher in Year 4 described her as "needing more self control and independence", referring to her desire for constant individual attention, especially from adults.

Jackie was very demanding of her teachers' time, from early primary school, continuing through high school, and was usually successful in gaining more attention than her classmates. She also lacked interpersonal skills when dealing with her peer group. Her erratic behaviour constantly interrupted and disrupted lessons as well as alienating friends. Jackie's Year 5 teacher stated that she was "persistent at annoying people when she didn't want to work".

Jackie was unable to line up with other students and take her turn without conflict and she was often in arguments and fights with her peers. Jackie's Year 6 report indicated that there had been a period where she increased her level of self control and became slightly better able to mix with others and be co-operative. The teacher stated that although there had been this minor improvement, there were still "some behaviours which caused great concern".

Although Jackie had learned to communicate verbally, to read and to write a coherent sentence, her social and behavioural problems restricted the opportunities she had to practise and improve these abilities. Her difficulties in making and maintaining friendships meant that she rarely held conversations with peers. At the time of data collection, Jackie was in Years 7 and 8 and her learning was very much overshadowed by her emotional state and interpersonal relationships at the time, as shown in the general comments in her end of Year 8 report (Figure 5.8).
General Comments

Jackie is gradually fitting in to the environment of Year 8, though she is often shy and reserved, often her attempts at relationships are too aggressive or we develop too positive. She needs to learn to accept her role within the class and the expectations of her peers and teachers. She needs to accept herself as she is and work towards understanding and accepting her weaknesses and limitations.

Figure 5.8: General comment at the conclusion of Jackie's Year 8 report, written by her IM teacher.

Martin's organic brain damage caused a global developmental delay resulting in poor speech which was considered to be his most significant problem. He did not pronounce words properly, sounded very babyish and was sometimes ostracised by the other children for his immature speech and mannerisms. In Year 9, during the second half of data collection, Martin lacked motivation for schoolwork, often refusing to attempt tasks and his classroom behaviour worsened considerably. This meant that he frequently missed out on activities specifically designed to increase his literacy skills. As described earlier, it is likely that this stemmed from problems at home which, at the time, were dealt with as a matter of priority, requiring attention ahead of school work.
Apart from these severe cases, brought on by the disability itself, many other students displayed varying emotional, social and behavioural characteristics. Classroom and playground behaviours were changeable and the emotional states of the students varied depending on the circumstances at the time and consequently affected class performance and learning. The normal developmental changes which come with adolescence, as with non-disabled teenagers, would have affected the students' emotional states and social behaviour. The extent to which maturational changes were responsible for behavioural difficulties is hard to gauge, but from my experience and from literature on the nature of intellectual disability (Healey, 1993; McLaughlin and Wehman, 1996; Kirk and Gallagher, 1989), some of the problems of these students were more severe than would normally be expected.

Brian was a socially capable boy in Year 7 at the time of data collection. He mixed with mainstream students in preference to those in Special Education classes. Within the IO class, his behaviour was consistently co-operative, but he sometimes joined in the play of older mainstream boys. He played with boisterous boys in the playground and became involved with their rough play which brought negative attention from both other students and teachers on duty. He also showed some aggression towards his peers in the playground.

In Brian's case, behaviour problems did not significantly affect his literacy learning in the classroom, as he was able to control himself and usually settled when required. Students in the IM and IO classes went to specialist teachers for the subjects of Art, Design and Technology, Music and Physical Education. In these different contexts, Brian was frequently poorly behaved and easily irritated. He appeared to be better adjusted to the routines and predictability found in the Special Education setting. As with many students with intellectual disability whom I have observed, Brian found routine comfortable. When he knew what was likely to happen in the classroom, he settled more quickly and easily to the task at hand, thus more effectively attending to literacy learning activities.
Clive also experienced significant fluctuations in his emotional state, although he always remained perfectly behaved. He was a shy and quiet boy with few friends, mostly in the IM class. Clive's parents' desire for him to maintain his emotional well-being was instrumental in the changes of class and school which occurred between Years 7 and 9. Clive had spent most of his primary school years in IM classes, but became unhappy and difficult to motivate in Year 7, as he found the transition to a large comprehensive high school quite difficult.

With his parents' encouragement, he tried a full time mainstream placement in Year 8. He was no happier however, and it was decided by the school and the parents that he might be better placed in another school. On the parents' request, Clive came to the IO class at Payton High School, where he seemed to fit in well socially and responded positively to the security of the small class situation, gaining confidence and appearing more settled and happy. In this state, as with Brian, he settled more easily to the task at hand and could work well on the literacy-based tasks designed to meet his needs.

Karen's behaviour at school was sometimes erratic. She was an extroverted girl and, by high school, had become socially capable. With many friends and acquaintances in both mainstream and special classes, she was never alone in the playground. However, this had not always been the case. In Years 2 and 3 she was reluctant to attend school and experienced difficulty in relating to other children, displaying behaviours that her teachers described as indicative of emotional problems. Although she settled and became less moody and more co-operative in Years 5 and 6, she was easily distracted and discouraged.

By Year 7, Karen needed a great deal of encouragement to undertake any schoolwork, this reluctance resulting in occasional poor classroom behaviour and a lack of co-operation. She enjoyed talking in class and rarely focussed her full attention on the task at hand. She did, however, enjoy working in pairs and groups and used her well-developed social skills in the classroom through talking and exchanging task-related ideas. As a result, she rarely practised her limited written literacy skills in a formal setting and they did not progress as far as expected.
Kevin, on the other hand, whose verbal interactions were limited to single word expressions, had very few social skills. In class, his behaviour was usually placid and co-operative unless he was asked to undertake a challenging task. From my observations, Kevin did not converse with his peers except to abuse them in single words when he was upset but he was usually happy in the classroom. With one or two people in a small area, he could sit happily and quietly, but in the wider context of the school playground, he had great difficulty in mixing with a larger group of people and was often involved in conflicts and violence. As unpleasant situations in the playground affected his emotional state in the classroom, his attention to literacy-based tasks was adversely affected by problems outside.

Mark coped reasonably well socially most of the time, but some students found his large physical presence and loud voice intimidating. Through both primary school and high school, there was continued reference in school reports and counsellor's records to the fact that he could greatly improve his behaviour and his relationships with peers with more self-control. In the classroom, however, Mark's behaviour was much more settled and he did not display these aggressive tendencies. Although his social interactions were not ideal, he did not bring these problems into the classroom and they did not hamper his application to the literacy tasks presented to him.

Shane's emotional and social well-being had a significant effect on his learning from an early age, especially where early training in using speech and written language was concerned. In the first few months of school, he was reluctant to attend class and ran away. His infants teacher described him as "clinging to teachers or classmates for attention and affection" and "very demanding of time and attention, needing constant supervision". This trend continued through primary school, with Shane often sad and angry at school and exhibiting occasional physical violence. In this state, as indicated in his anecdotal records, he rarely participated in literacy activities in the classroom.
By secondary school, he was relatively controlled in class, but was frequently involved in playground conflicts, with similar social problems. In a questionnaire undertaken in Year 8, Shane revealed that he felt restless, lonely and unhappy at school and believed that the other students were not always friendly towards him. His IM teacher described him as socially unstable and usually in an emotionally turbulent state.

Shane had friends in the IM/IO classes, but found it difficult to mix on a wider scale with students in mainstream. His academic abilities were such that he was capable of coping with mainstream English work, but his emotional difficulties made this impossible in the setting of the mainstream class. His unco-operative behaviour prevented successful mainstream placement and he remained in IM classes, in spite of his ability to cope with the academic demands of a mainstream classroom. As English was Shane's best subject, his need to remain in an IM class demonstrated how his emotional difficulties severely restricted the number and range of literacy opportunities he experienced.

Simon's behavioural problems manifested themselves from an early age. He began school in a mainstream Kindergarten class, where he displayed disruptive behaviour. This did not improve until he had joined the IM class at the beginning of Year 2. By Year 6, his attitude to others in his class and work had improved so that he was able to work well when supervised, but still misbehaved when alone and lost control of his temper easily. Because of the controlled environment in the IM class, Simon's behaviour had little impact on his literacy learning at this stage. He continued in an IM class in secondary school, but was not happy, becoming more unco-operative and disobedient, resulting in class disruption and conflict with parents and teachers. This resulted in the decision to change schools from Simon's local high school to Payton High School, still in an IM class.
As his teacher for part of the time during data collection, I found Simon to be gregarious and confident in social situations, but with a quick and sometimes violent temper and a tendency to bully smaller or emotionally weaker students than himself. In class his social behaviour varied; at times co-operative if he was happy and the work was at a level with which he could cope; sometimes loud and disruptive if he was unsettled or presented with difficult or unappealing tasks. His behaviour appeared to be influenced by the tasks required of him rather than the nature of his disability.

Simon was very much aware of the reaction of his peers to his behaviour and he enjoyed the attention he received. On the other hand, he was keen to impress his teachers and liked to be praised for his work. The level of participation and subsequent learning which took place in the classroom for Simon was usually dependent on his emotional state and consequent behaviour at the time. These changes restricted his learning opportunities and limited his exposure to literacy activities.

Warren was generally a happy, talkative and socially capable boy all through his schooling and maintained a small circle of friends within the special classes. He had a very vivid imagination and often came up with interesting ideas in class. However, he lacked motivation to work independently and was very dependent on others for assistance. Warren's primary school teacher commented that "you had to be continually motivating Warren. He'd be happy to just sit there all day long and not do anything". In Year 7, while collecting data, I found the same problem. He rarely undertook any activity in class unless specifically asked to and offered continual adult assistance. In terms of literacy learning, this meant that Warren did not develop as much independence in using language as he could have, hence limiting his ability to use language for his own practical purposes.

In his early years of schooling, Max was shy and unwilling to participate in class activities, especially those which involved speaking, as he was aware of his slight speech impediment. In secondary school, Max remained shy and quiet, but often tried to avoid drawing attention to his work by copying from others. When he found a task difficult or lacked the confidence to complete it independently, he became even quieter.
It is my belief that this was so that the teacher would not notice incomplete or poorly done work. As his classroom teacher, I noticed that, with work he could easily complete, he was more talkative and participated more in the lesson. With a task he found difficult, he would become quiet, not asking for help and often covered his work with his arms when I approached. Max seemed convinced that his work was of an unacceptable standard, in spite of my insistence to the contrary and was very reluctant to attempt tasks independently, receive help or show his work. This attitude had a negative effect on his literacy learning as he was unwilling or unable to gain assistance which would help him progress.

Two of the students experienced behavioural and social difficulties early in their school lives, but managed to overcome them during primary school, so that by the time of data collection they were no longer a hindrance to classroom learning. Both Eric and Micky experienced major changes in their behaviour and social interactions as they grew older, but these had very different influences on their behaviour and social skills.

Eric had a difficult time between Years 4 and 6, but was happy and controlled at all other times during his school life. I did not find in the data any major changes in his life during this time or any personal conflicts either at home or at school to account for this. Eric became disruptive in class, irritated others frequently and did not use appropriate social skills, finding it difficult to make and maintain friends. However, these problems disappeared before his entry to high school, with major improvements by Year 9 and nothing but impeccable behaviour and well-developed interpersonal skills evident during the period of data collection.

Micky's behaviour also was a major problem in his early years of schooling. His medical records showed that his erratic behaviour was linked to the brain damage he sustained as a result of a head injury. In Kindergarten, his reports and Pupil Record Card focussed on descriptions of his unsettled behaviours and social difficulties, rather than literacy learning and academic achievement. Although he was usually quiet in the IO class, in the playground he displayed aggressive behaviour towards his peers which frequently resulted in violence.
In Year 1, he began taking the drug Dexamphetamine to control his extremely difficult behaviour, which had escalated in the playground to violent actions such as pushing, kicking and knocking children to the ground. The medication had an immediate and positive effect, as shown by the teacher’s comment that Micky became a "happy boy who was relatively easy to manage when on his medication". Through primary school and in secondary school, Micky was reasonably settled, but was still developing techniques for conflict resolution and anger control. These skills, in conjunction with the medication, allowed him to operate successfully most of the time, both in the classroom and in the playground. Micky was then able to attend to instructions, converse with teachers and peers and participate more fully in the literacy activities designed for him.

Both Eric and Micky developed into Year 7 students who were well-behaved and co-operative. It was clear that Micky’s medication was significantly responsible for this, as he reverted to his previous aggressive state when he was not taking it. In Eric’s case, there was no medication used and I did not find any evidence which might have explained why his behaviour changed so. His unsettled period between Years 4 and 6 did not appear to have affected his literacy learning as he had developed basic skills in reading and writing before this time and continued this progress when his behaviour no longer affected his performance.

Kate was an extremely shy and quiet child when she started school in a mainstream Kindergarten class. She was very nervous and withdrawn and had difficulty verbally expressing herself. This led to further frustration and anger and, at times, Kate chose not to speak at all. At the end of Year 1, Kate was assessed by a counsellor and it was recommended that, based on her academic and social needs, she be placed in an IM class.

In her early years of primary school and up to Year 5, Kate was quite happy to attempt work set for her, but preferred not to interact with her peers, thus restricting her access to verbal interactions, so vital for successful progress in literacy. The informal notes kept by Kate’s Year 5 and 6 teachers indicated that she was beginning to develop a more positive attitude in social situations and was coping better with peer relationships.
In Year 7, Kate's IM teacher felt that she still "needed more assertiveness" as she had a shy nature and lacked social confidence outside the Special Education classroom. This made attendance in any mainstream class difficult, although it was thought that she had the ability to cope with English lessons outside the Special Education faculty. This situation limited the literacy opportunities in which Kate could participate but her classroom behaviour was always impeccable and her lack of social interactions did not affect her commitment to working, so she was able to participate fully in the literacy activities designed to meet her needs in the classroom.

For a group of three students in the study, lack of behavioural control and social interaction skills were not a problem. Jane, Pete and Ros were happy and settled both within and outside the classroom and their academic progress was not hampered by conflict with peers or teachers. Jane was described as a happy, helpful and co-operative child in her infants years who always tried hard. Her primary school records praised her enthusiasm frequently and this positive attitude and settled disposition continued through the early years of high school and throughout the period of data collection in Years 9 and 10.

From the beginning of his schooling, Pete showed impeccable behaviour and a happy and settled disposition. Pete's presence in the classroom was always pleasant and he showed enthusiasm for and commitment to his work. He was quite capable socially and behaviourally, regardless of the unsettled conditions and lack of primary care at home. Through primary school and in Year 7 during the period of data collection, Pete maintained a positive attitude to his own learning and was always keen to try his best at whatever was asked of him, as seen in the general comment on his Year 7 half yearly report (Figure 5.9).
Figure 5.9: General comment on Pete's Year 7 half-yearly report.

Ros's behaviour and social skills were not noticeably positive or negative. She coped well in interpersonal relationships and usually did as she was asked in class. She needed frequent teacher attention when she first started school, but this was not required after her initial settling in period. Ros had a few friends and acquaintances in both Special Education and mainstream classes. The data indicated that her emotional, behavioural and social skills rarely affected her literacy or academic development adversely.

Summary

For those students whose social skills were well-developed, not causing conflict with peers and adults and for whom emotional disturbances were rare, learning was unimpeded by these issues. These students approached speaking, reading and writing tasks in a settled and positive frame of mind, generally untroubled by events outside the classroom and were able to gain the maximum benefit from the literacy activities designed to meet their needs.
From these case examples, it can be said that emotional disturbances and social difficulties affected the progress of literacy learning in a number of ways. In cases where students were in emotional turmoil or experiencing problems in their social lives, these difficulties often took precedence over academic learning, reducing the motivation to attend school and participate in literacy activities designed to meet their needs.

Such students, when having emotional and social difficulties, demonstrated a lack of independence in class and were in need of immediate attention to their behaviours which overshadowed attention to their literacy learning needs. There were also several instances, as evident in the literacy profiles, where the unsettled behaviour of one or more students affected the classroom atmosphere, in turn making the participation of others in relevant literacy activities less successful.

Behavioural, social and emotional problems were experienced by 12 of the 19 students in the study, who fell generally into three categories. In the first were students for whom learning was impeded significantly and frequently, depending on the nature and severity of the problem and the context which brought it about. These students were Kevin, George, Mitchell, Simon, Jackie, Shane and Martin. For the students in the second category, including Micky, Brian, Max, Eric and Karen, problems of this nature only affected learning in the short term, and did not have an adverse effect on secondary literacy learning. Students in the third category included Clive, Pete, Warren, Kate, Ros, Jane and Mark who did not experience problems in this area so that their literacy learning was not affected at all.
5.6 Self concept and confidence

The levels of self concept and confidence held by students in this study had an impact on the types of tasks which they were willing to participate in and the attitudes they brought to performing them. The data for this assessment of self concept and confidence came from a number of sources. All of the students, except Kevin, whom I felt would be unable to give informative responses because of his limited verbal skills, completed a Self Description Questionnaire (SDQ, Marsh, 1990), a tool which examined the students' perceptions of themselves in the areas of physical appearance and ability, general academic performance, reading, mathematics and relationships with parents and friends. Other sources of data included anecdotal records, teachers' reports and formal and informal interviews with teachers and students. I found that the SDQ was a most valuable source of information on self concept, which was well supported by the other sources of data.

Eric and Shane, both in Group A in the literacy profiles, and Jackie and Mark, both in Group B, all showed consistently high self concepts and high levels of confidence. Eric, when given the SDQ, answered all questions with the most positive responses possible. Anecdotal records indicated he displayed a high level of confidence in social situations and he was willing to undertake any task asked of him. Jackie also responded very positively to all aspects of the SDQ and considered herself a good reader who enjoyed reading very much and showed extensive book knowledge. This was shown in class in her eagerness to read and display her knowledge, also evident in the anecdotal records.

Mark demonstrated a high level of self confidence and enjoyed the positive reinforcement of completing a task well. Shane's SDQ showed that he had a particularly positive self concept in the area of reading with most other areas also in the higher range of answers. This was shown by his positive responses to questions such as "Work in reading is easy for me" and "I learn things quickly in reading". He was confident in class and proud of his achievements, especially in literacy. He felt that learning was useful and that he had accomplished it successfully. This was evident through his responses to specific questions such as "I get good marks in all school subjects" and "I can do things as well as most other people".
These positive self-concepts and high levels of confidence contributed to the literacy learning of these students by giving them the personal power to attempt new tasks, experimenting with reading and writing tasks which challenged them and not restricting the opportunities available to them. However, there was a group of students who demonstrated both low levels of confidence and low self concepts. This group comprised 5 of the 19 students. Those students who did not think highly of themselves and their abilities did not demonstrate a high level of confidence in using their skills in a classroom setting. These students were less willing to undertake new tasks and were more reliant on guidance and assistance from teachers, thus inhibiting the development of independent language skills. However, they ranged across all three groups of literacy knowledge and skills.

Kate had a generally low self concept and did not consider herself a competent reader or writer, but she was always willing to try any task independently. In her primary school years, she lacked confidence in her own verbal skills and appeared to enjoy the security of placement in a small class with individual teacher attention. Kate's behaviour indicated that she was more confident in this setting and felt a little better about her own abilities. The secondary IM teacher recognised Kate's mood changes, low self concept and lack of personal confidence and implied that home problems might have been significant here (Figure 5.10), while the mainstream teacher concentrated more on her work level and confidence in the classroom (Figure 5.11).

![Figure 5.10: General comment on Kate's Year 7 half yearly report written by the IM teacher.](image-url)
Kate has been integrated into the English in the mainstream since October. She has shown herself to be capable and a willing worker. She was also hopeful, despite more assertiveness as she becomes more used to the class.

Figure 5.11: Comment on Kate's Year 7 half yearly English report written by the mainstream teacher.

Martin had very little confidence, especially in academic endeavours and was often reluctant to write at all. He usually chose to write only the minimum required and was unwilling to take risks with work he was not confident in. When Martin found a task difficult, he would become disruptive. Although his behaviour indicated a low self concept, Martin, in his SDQ gave mostly positive answers, with the exception of academic and reading self-concepts which were mid-range.

Max also lacked confidence and was aware that his work was not of a high quality. He was unwilling to accept help or show his work to teachers or classmates as he did not like to think of himself as dependent. His SDQ responses were mostly positive with the exception of reading, which was mid-range, and academic achievement which was very negative. Both Martin and Max showed higher self concepts in the more social and less academic strands of the test. Max's primary IM teacher felt that an increase in confidence and self concept would result in an improvement in academic performance (Figure 5.12).
Figure 5.12: General comment on Max's Year 7 half yearly report written by the IM teacher.

According to his SDQ results and supported by my anecdotal records, Micky's self concept was low in all areas and he also lacked confidence in his own abilities. Although he had some good ideas, he was reluctant to take risks in writing. He sought help frequently and was rarely willing to attempt to write independently.

Simon responded mostly negatively in the SDQ in the areas of reading and general academic performance. His answers to questions such as "I am interested in reading" and "Work in reading is easy for me" were "sometimes true/sometimes false". He was generally dissatisfied with his own academic achievements and felt that his handwriting was poor.
Simon often apologised in my class for the poor quality of his spelling, but liked to show work that he had completed with help and felt was worthy. In spite of this sense of inadequacy, Simon usually attempted most work in class, being willing to take risks, even when failing, as he perceived it, was a possibility. Like Kate, this reflected his feeling of security and acceptance within the IM class.

Clive, Pete and Ros, one from each of the literacy profile groups, when compared to other students in the IM and IO classes, showed high levels of confidence. This was demonstrated through my anecdotal descriptions of their attitudes to work in class. However, in all three cases, low self concepts were evident through their responses on the SDQ. This contrast between my assessments of confidence and the students' perceptions of their self concepts might indicate that the learning environments provided for them were such that they felt able to take risks in their academic endeavours, despite feeling that they were not as competent as others in the areas addressed by the SDQ.

Clive believed himself to be a success as a student and was proud of his work, enjoying taking on extra tasks. He felt that he was a competent reader and writer, as indeed he was, in comparison to his IM peers. In the SDQ, all of Clive's responses were positive, but his most outstanding area was reading. He answered in the most positive manner possible for all questions relating to reading, such as "I look forward to reading" and "Work in reading is easy for me."

In contrast to this high opinion of himself as a reader and writer, Clive's confidence in his general abilities was comparatively low. He was unwilling to attempt any task of which he was unsure and frequently approached me or the teacher's aide for assistance or to have work checked, even though he knew it was competently done. He needed regular reassurance that his work was of an acceptable standard.
Clive was willing to exercise his reading and writing skills in IM/IO classes, including the more challenging activities, such as independent creative writing and self-directed comprehension activities, but lacked that confidence in the mainstream setting, although the level of difficulty of the tasks which were asked of him was within his capabilities. Clive's interview and my observations indicated that this might be the result of the security Clive felt in a small class with structured routines and individual programs. Pete, on the other hand, believed that he was a competent reader and writer, but lacked the confidence to undertake literacy tasks without help. His SDQ indicated a generally high self concept, but he was reluctant to work in class without individual assistance.

Ros's level of self concept was also reasonably high with no negative responses to any questions in the SDQ. Her perceptions of what she could and couldn't do governed the range of tasks in which she chose to participate. She enjoyed the production of a completed and polished piece of writing and would happily attempt a task where she felt there was an achievable goal. This often depended on whether help was available, as she liked to have assistance with proofreading in order to ensure that the product was a quality one.

Karen's attitudes reflected the opposite combination of self concept and confidence. In social situations, Karen was outwardly confident and certainly had the skills to manage herself well in the company of others. However, this confidence did not translate to the learning contexts of the classroom. In her SDQ, Karen had no responses at all in the high range, with the area of reading particularly low, indicating a very low personal opinion of herself and her abilities. Karen did not believe herself to be a good reader or writer and felt that she was incapable of succeeding academically. She lacked confidence in her own literacy skills and avoided reading and writing wherever possible.
A number of students indicated through the SDQ, interviews and anecdotal records that their opinions of their own abilities and levels of confidence varied across different settings at different times. George indicated a high level of interest in all areas covered in the SDQ, but a low self concept, showing that, although he enjoyed class activities such as discussions and story-writing, he was aware that he was not very competent.

George's level of confidence in his own reading and writing abilities was high at times, despite the illegibility of his writing and general lack of knowledge of writing conventions such as spelling. George liked books and enjoyed the activities undertaken in class and he had a generally positive attitude about himself and his relationships with the people around him, but was aware of a particular weakness in reading and lacked confidence. He was not keen on taking risks in reading and would not attempt a guess at an unknown word. George was essentially a non-reader and non-writer beyond the recognition and writing of his own name and a few sight words.

Jane's SDQ responses were generally low across all areas, but particularly low in reading. She did not consider herself an academic success, an attitude which differed from the perceptions of her class teachers who felt that she was at the top of the IM range and coping very well. This reflected Jane's unrealistic expectations of herself. She would have liked to be more intellectually capable than most IM students, as seen in my anecdotal records, and was often disappointed when this was not shown to be the case. Jane showed in her interview that she felt "bad" about her own abilities in reading and was unwilling to read beyond the requirements of the classroom. She felt she was a "hopeless" reader, but liked to write, both composing and copying, and was proud of her achievements, indicating that she felt, in this area, that she was very capable.
Brian's early primary school records indicated that he began school with a relatively high level of self confidence, which changed as he grew older and began high school. He undertook the SDQ in Year 7 and his responses made it clear that he was not comfortable with his own reading abilities by answering "sometimes true/sometimes false" to questions such as "I am interested in reading" and "I learn things quickly in reading".

Brian's attitudes towards his own writing abilities also became negative in Year 7, when he changed from attempting his own writing, as he did in primary school, and became unable or unwilling to write independently at all. However, although reluctant to work at times, Brian was usually confident that he could competently complete an assigned task. The result of this was that he was generally willing to undertake a short writing task with assistance.

Warren appeared outwardly confident, but was reluctant to work in class without individual assistance. His SDQ was positive in all areas except reading where he felt his skills were less than adequate. Warren showed very little independence and rarely undertook any task at all without continual attention from the teacher, but he responded well to positive reinforcement. His primary school teacher felt that this was partly the result of a low confidence level in his own learning and partly his poor attendance which resulted in lack of practice (Figure 5.13).
Figure 5.13: Warren's end of Year 6 report written by the IM teacher.
Two students, Mitchell and Kevin, did not fit into the above categories. Mitchell had a very positive view of himself, his academic achievements and his social acceptance by others, with a very high level of self concept indicated in his SDQ. He believed himself an "excellent" reader and a "good" writer. However, this view was not an accurate perception of reality. For example, my anecdotal records indicated that his reading skills did not progress beyond the recognition of his own name, but he was adamant in class that he had read and understood "The BFG" twice by himself.

Mitchell was proud of his own literacy abilities and felt that he coped well with the work given him, when in reality he refused to work unaided in any activity and usually chose not to work at all, being totally dependent in class and keen to give up easily. He also indicated that he believed that he "got on well with others, was popular, accepted and trusted by the students", when from my observations, his social skills were very poor and many of his classmates feared his violent outbursts. It is possible that Mitchell either perceived himself unrealistically in relation to the world or he responded to my questions by describing his ideal, rather than real, self, or both.

It was very difficult to gauge Kevin's levels of confidence and self concept as he did not speak beyond single words. However, from my observations of his poor class behaviour, lack of co-operation and emotional extremes, I would assume that there were problems in these areas. At times, though, he did like to produce a finished piece of work and was proud of it, indicating that there were times when literacy activities were welcomed by Kevin and provided a sense of achievement.

**Summary**

Motivation to learn was particularly affected by self concept and confidence. Those who were thinking positively about classroom activities showed enthusiasm to undertake tasks, while the students with more negative attitudes to themselves were often reluctant to take risks, were less likely to work without assistance from the teacher and less confident in undertaking new activities.
In some cases, the students became unwilling to accept help as they did not feel confident in showing work that they perceived was of a low standard. Some students with low self-concepts and levels of confidence completed only the minimum amount of work required in class and used classroom disruption as a way of avoiding tasks with which they were not confident.

Views of self-concept varied greatly among the students in this study, ranging from very high in all areas, through variable views of self to very low in all areas. They divided into six groups. These were (a) high self-concept / high confidence, (b) high self-concept / low confidence, (c) low self-concept / low confidence, (d) low self-concept / high confidence, (e) both self concept and confidence variable, and (f) Mitchell and Kevin, who did not share any of the characteristics of the above groups.

There were three cases (Kate, Simon and Jane) where the measures on the SDQ were not reflected through observations of students' behaviour and performance. This is because the SDQ demonstrates the students' own perceptions, which might not be what their actions show. There were several possible influences on self concept and confidence indicated in the data. Problems at home or with personal relationships affected the students' opinions of themselves and the attitudes they brought to classroom activities. Differences in ability to cope with various social situations was a noticeable factor in the development of personal characteristics and greatly influenced both confidence and self concept.

5.7 Attitudes

Most of the data for this section was collected through interviews and anecdotal records, where the students described or demonstrated their attitudes to school and learning in general, books and other forms of print, their own academic abilities and the responses they received from others. These varied greatly among the students with many differences in attitudes across settings and times.
A small number of students demonstrated consistently positive attitudes which affected the manner in which they approached their work, their acceptance of guidance and their willingness to progress to the next task. They were always happy to participate in class activities and always gave their best, being co-operative and pleasant in interactions with their peers and teachers.

Clive (Group A) was a committed student who always worked well, who particularly liked reading and showed significant improvement in this area in the early years of high school. He loved books and stories, especially adventure books and magazines and was described by his mother as a "book child". Clive felt that reading was an important skill as "you need it when you're grown up", that it was fun and "easy because I can do it".

This positive attitude to reading continued through high school and Clive became a competent reader who was happy to undertake any literacy task, which in turn assisted in developing his academic skills. Possible reasons for this include his settled, supportive family life and the appropriateness of his class in secondary school. Clive's attitude assisted him in overcoming some of the earlier obstacles in his literacy learning as he was less anxious, more willing to take instruction and practise using the skills and knowledge he had gained. His low level of confidence, however, was reflected in his constant search for approval that his work was of a high quality.

Eric (Group A) also had a very positive attitude to school and learning. He had developed a love of books from an early age and remembered being read stories in bed. In his interview, he commented with affection, "I like reading. When my father reads me into bed when I was a little boy and suddenly, suddenly I fell, I fell asleep". In Year 6, Eric had reached a maturational milestone, according to his teacher, where he began to work more independently and to use his literacy skills for knowledge and pleasure. This continued into high school and became a lifelong pastime for him. He read widely as a leisure activity and had a particular interest in health and fitness, frequently buying magazines and borrowing books.
Eric was a much loved only child in a settled and stable family. His disability was detected early and he was placed in special classes after entering school. Eric was a naturally placid and happy boy, a disposition encouraged and supported by his family. They also helped foster his love of reading through the provision of reading material and encouraged his literacy learning through constant praise and acceptance of his achievements. Eric also enjoyed the benefits of an appropriate placement in secondary school.

Jackie (Group B) generally enjoyed coming to school and liked all kinds of books. She had an extensive knowledge of children's and teenager's literature and read widely and independently for pleasure, a practice she developed in primary school. Her Year 6 teacher described her as a "keen reader who gained pleasure from books". Jackie also liked to write as a leisure activity and did so often, enjoying particularly the process of spelling. This positive attitude to reading and writing assisted Jackie's literacy learning as it meant that practice and use of skills were constant. It also caused, and was possibly caused by, the positive responses it gained from adults, especially teachers.

Micky (Group A) was happy both at home and at school and relaxed in the IO class provided that change was kept to a minimum. As his mother stated in her interview, "he's always good in a routine. He follows ... he likes routine. He doesn't like change". She maintained that he "always loved reading" and Micky himself supported this with his comment, "I like reading. I like the writing in it, like letters." Micky believed that reading was important and chose to read comics, novels, stories and picture books.

Pete (Group C) too, held a positive attitude to school and learning, believing reading to be an important skill, even though he didn't always find it easy and needed a great deal of teacher attention to help him complete his work. His positive attitude was somewhat surprising, given the lack of support at home and his placement in Group C, but Pete thoroughly enjoyed literacy activities in class and in school in general. He worked quietly, slowly and methodically, but sometimes became frustrated by challenging work. However, in spite of these problems and his difficulties at home, Pete's attitude to school and classwork remained very positive.
The other students were shown in the data to have mixed attitudes to school and its related activities and interactions, or to have changed their general outlooks over a number of years. When Brian (Group C) began school, his attitude was a very positive one. He worked with enthusiasm in the IO class in primary school and this continued through primary school and into high school.

In his interview in Year 7, Brian commented that he usually liked coming to school because "you learn to read and write". His attitudes to the processes of reading and writing were somewhat different. Brian felt that learning to read had been easy, but he hated to practise it. He did not show a particular interest in print, was not keen to use it and never borrowed from a library. In her interview, his mother supported this statement by saying that Brian needed "a lot of encouragement" to read.

Brian often avoided the task of writing and chose to draw instead if he had the opportunity, an attitude fuelled by success in drawing. He did not choose to either read or write for pleasure and became progressively less willing to take risks in his reading or writing, developing a reluctance to read or write at all beyond what was required at school. Brian particularly liked art and craft activities, was aware that he was talented in this area and took pride in his work. Brian found literacy learning in school increasingly challenging, having reached a plateau in knowledge and skills during the late primary years, leading to an increasingly negative attitude.

George's attitude (Group C) to school and learning in general varied from day to day, depending on what had been happening at home and in his social sphere at the time. Although his reading skills were negligible, George enjoyed books and had a keen interest in them. He claimed in his interview that he liked to read and considered it a valuable learning experience. However, he was not keen on taking risks academically, and would not guess at an unknown word, preferring to wait for assistance.
From as early as Kindergarten, Jane (Group B) enjoyed school and its associated learning activities and always approached her work with enthusiasm and effort. In high school, this positive attitude remained for most activities which were within Jane's abilities, but as the level of difficulty of tasks required of her increased, she tended to give up and did not display a willingness to use her language skills for a variety of purposes and audiences, especially reading, which she found difficult. Jane did not like books or choose to read for pleasure, as it was not an activity she found easy or rewarding, and was not keen to attempt a class reading task independently.

Art was an area in which Jane was particularly interested. Her IM teacher in Year 7 recognised an artistic talent as well as an interest and Jane joined a mainstream Art class for Year 8, where she remained positive and gained confidence. As with Brian, finding an area in which she could succeed confirmed positive attitudes, while lack of success increased negative attitudes.

In her interview, Kate (Group B) indicated that she was not keen on coming to school and much preferred recess and lunchtime to time spent in class. However, as shown through the anecdotal records, when Kate was in class, she was always willing to undertake set tasks and performed to the best of her ability. Kate believed that reading was important and fun and that schoolwork was enjoyable, demonstrating the fact that the individual education program was appropriate for her. She liked to listen to stories and look at books, but she did not read as a leisure activity.

Kevin (Group C) also showed a keen interest in and enjoyment of books and stories, especially picture books. Generally, Kevin was happy to complete a task, often tracing, as this activity was within his capabilities. However, if he didn't like a task or found it difficult, he would either become angry and unco-operative or divert attention by getting a game out of the cupboard and proceeding with that.
Mark (Group B) had a generally positive attitude to school and loved books and stories, particularly adventure stories. His primary teacher felt this was a strong point for Mark, as she emphasised in her interview,

Books, just give him books. He was quite happy. He loved books. You'd just give him books and he'd keep reading. He'd find a new word and he'd come and ask you what it was. And because he'd pick up the book so often that sort of word just seemed to go in. You really didn't even have to use a lot of drill type things for him for sight words. He would just tend to pick them up by using them.

Mark was a relatively capable reader and could read at an independent level which contributed to his positive attitude towards print. However, he found the daily work in class less pleasurable and was often reluctant to write. Learning for its own sake was not part of Mark's system of motivation and he often needed considerable encouragement to complete a task.

Ros (Group B) found pleasure in all manner of books and stories and frequently borrowed books from the library. However, although she enjoyed the processes of reading and writing, she sometimes found them challenging. She preferred to be read to rather than to read independently and was somewhat reliant on help from the teacher or teacher's aide in class. These attitudes were the same as Ros's mother's who maintained close links with classroom activities.

In the early years of his school life, before he was placed in an IM class, Shane (Group A) showed a negative attitude to school and learning. In Infants classes, he was reluctant to join in class discussions and his teacher felt that he had "given up trying". However, after his placement in an IM class, he began to change his attitude and responded well to working on a one-to-one basis or in small groups. Shane's reading skills developed well through primary school and, by Year 6, his teacher claimed that he had "discovered books and read all the time". He enjoyed reading and revealed in his interview that it was his favourite activity and the thing he's best at. He considered his writing to be "OK", but was capable of working independently, quickly and accurately.
Warren (Group C) was generally happy and positive about school and learning, but lacked independence as a result of his home situation. He liked to look at books and magazines, but found it difficult as he indicated with the comment, "I get stuck on the words". Warren did not choose to read or write for pleasure as he lacked the skills and confidence, but was happy to work with one-on-one assistance and responded well to positive reinforcement.

Max (Group B) felt that school was necessary and did not express either a positive or negative attitude to school and learning on the whole. Although Max was not particularly keen on the tasks of reading and writing and did not select them as a leisure activity in class, he was keen to have assistance in class and produce a quality product.

A smaller group of four students showed consistently negative attitudes to school, learning, literacy and their own abilities. They did not generally enjoy work in class and were therefore not intrinsically motivated, making productive learning a difficult goal to achieve.

Karen, although having consistently higher literacy skills than her IM peers, displayed a generally negative attitude to school through her primary years which continued and became more marked in secondary school. It was initiated and supported by her mother from an early age and Karen did not feel that school-based learning was very important. She needed a great deal of encouragement to participate in classwork, particularly in activities which required reading.

Karen showed a lack of willingness to work independently and although she felt reading was "boring but necessary", she would not choose a reading or writing activity if choice was available. By Term 2 in Year 9, she had lost interest in school and had frequent and prolonged absences on a regular basis. Martin (Group C) showed no interest in schoolwork at all. His home and family difficulties were such that concentration on secondary needs such as education was rarely a priority.
Mitchell (Group C) also found school difficult to cope with and became easily frustrated. He did not manage crowds very well and felt intimidated in the playground, to which he reacted with aggression. He had little patience with schoolwork in general and needed a great deal of encouragement to co-operate in the classroom. Many of those attitudinal difficulties were a direct result of Mitchell's Fragile X Syndrome. Mitchell liked books and print and frequently borrowed from the library. He did not have the skills to read or write independently but sometimes liked listening to stories and writing with help. Although he became frustrated with his own writing inability and was generally reluctant to work, he did show some willingness to compose a story with a scribe. Mitchell did not choose to use print as a leisure activity.

Simon (group B) had a positive attitude to the social interactions he encountered at school, as they were generally successful when he kept his temper, but indicated in his interview that he would rather be somewhere else. In class, he did as little as possible, especially when the tasks involved reading or writing as he found little opportunity for success independently. He experienced difficulty in concentrating for long enough to gain pleasure from print and avoided it wherever possible. Simon hated to practise reading and was reluctant to read or write in any context.

Summary

The results of positive attitudes were many. Some students showed increased willingness to undertake tasks in class as they felt that there was a chance of success. Students who were feeling positive about the activities in which they were involved were likely to accept help and guidance without relying too heavily on it. It then followed that the student who was more willing to try something and accept help with it was likely to make more progress with the related skills than the student who was not willing to attempt a particular task.
Negative attitudes were also significant influences in literacy learning. Students who did not like being at school, those for whom social interaction was difficult and those who displayed their emotions in inappropriate behaviour tended to achieve at a lower level than their innate abilities indicated they could achieve. In Group C, only Pete did not demonstrate negative attitudes towards work. Group B contained students with both positive and negative attitudes and in Group A, only Karen was less than enthusiastic about her classroom activities.

This shows that attitudes affect literacy learning, but not the same way for each student. The effects of attitudes must be examined in light of the whole range of co-existing influences on literacy learning, such as innate ability, the nature of the disability, school and home environments, social skills and emotional difficulties. Social and emotional influences are particularly important in the literacy learning of intellectually disabled adolescents because their emotional stability and social interactions impact on the attitudes they bring to everything. The way in which a task is approached, the level of confidence brought to it and the willingness to accept assistance all play a vital role in gaining literacy knowledge and skills and maintaining them through practice.

5.8 Conclusion

Understanding the nature of the individual learner is one of the cornerstones of successfully teaching students with mild and moderate intellectual disabilities. The evidence presented in the literacy profiles demonstrated that, although there were a number of common elements in the literacy learning processes of the students, each was a unique case with particular manifestations of his/her disability and medical conditions and individual levels and types of cognitive development. Social and emotional states of students are also unique to each student and are extremely important in literacy learning as they influence the levels of student engagement in classroom activities, reflect students' personal attitudes towards learning and affect their responses to tasks which might bring them success.
The issues raised in this discussion of cognitive development and its effects on literacy learning are different for each student. Although concentration and language processing emerged as major factors in cognitive development, each case needs to be individually investigated and related to each students' particular learning abilities and needs. Knowledge of the nature of the disability, related medical problems and how they affect each student forms the framework on which to build a greater understanding of the factors which influence literacy learning for students with mild and moderate intellectual disabilities.

Lack of sustained concentration in class was often linked to the students' inabilitys to control their emotional reactions to difficulties they encountered both at school and at home. In some cases, drug therapy was very beneficial, but for most students, difficulty in concentrating restricted the positive impact of learning activities and required the teacher to provide programs to improve and/or manage these problems and build successful working relationships with students.

The aspects of logical thought processing which most affected literacy learning were pattern recognition, a necessary skill in reading, and sustaining thought processes, vital to both reading and writing. The complexity of these processes is also an important factor in developing organisational skills, problem-solving and the recognition of cause and effect.

Almost all of the students in the study performed better with verbal language than with the written form, with some showing considerable knowledge of verbal language which was not evident in their writing. This demonstrated that not all knowledge of language and its intricacies was demonstrated through the skills of reading and writing. Knowledge of this type was particularly useful in devising individual education programs which capitalised on the cognitive strengths of each student.
In this study, behavioural difficulties affected the classroom literacy learning of 12 of the 19 students. My professional experience leads me to believe that this large proportion of behaviour problems within a group of intellectually disabled students is not uncommon. Yet, social and emotional states of students are extremely important in literacy learning as they influence their levels of engagement in classroom activities, reflect their personal attitudes towards learning and affect their responses to tasks which might bring them success. Unless ways are found to manage these states at school, the evidence from this study indicates that effective literacy learning will be impeded.

There were also several instances, as evident in the literacy profiles, where the unsettled behaviour of one or more students affected the classroom atmosphere, in turn making the participation of others in relevant literacy activities less successful. The results of these difficulties were many. Incidents of aggression, bullying and physical violence were frequently referred to in the data, often resulting from a quick temper, triggered by an incident which had upset the student.

Avoidance of or refusal to work and refusal to attend school at all were sometimes the effects of emotional or social disturbances, which directly affected learning. Some students found it difficult to concentrate on a classroom activity if some other incident or problem had taken their attention. This resulted in a lack of an inability to focus on the task at hand, directly affecting their learning. Problems unconnected with academic progress often took precedence in the students' lives over the activities which were happening in the classroom and impeded learning of the task at hand.

Emotional disturbance was the direct cause of a change of school in three of the cases in the study and sometimes was the main reason behind the decision to investigate special class placement in the first place. Students who have such difficulties are often unhappy at school and can become very reliant on other students and their teachers for emotional and social support, placing an extra strain on all participants in the learning process in the classroom.
Motivation to learn was particularly affected by self concept and confidence. Those who were thinking positively about classroom activities showed enthusiasm to undertake tasks, while the students with more negative attitudes to themselves were often reluctant to take risks, were less likely to work without assistance from the teacher and less confident in undertaking new activities.

There were several possible influences on self concept and confidence indicated in the data. Problems at home or with personal relationships affected the students’ opinions of themselves and the attitudes they brought to classroom activities. Differences in ability to cope with various social situations was a noticeable factor in the development of personal characteristics and greatly influenced both confidence and self concept.

The attitudes of the students to school in general and the work they undertook in class were particularly important for literacy learning. Negative attitudes tended to result in reluctance to take risks in literacy activities, while positive attitudes were shown through the literacy profiles to benefit class participation in a number of ways. Those students with positive attitudes tended to be more willing to undertake new tasks, take risks in their learning and practise their literacy skills through constant use.

They showed greater motivation in class, higher levels of confidence and fewer instances of disruptive behaviour. They were more accepting of guidance and assistance and tended to use their reading and writing skills independently and for pleasure. In this manner, positive attitudes brought to a learning situation could enhance the skills being practised and increase the levels of independence shown by the students. However, not all the students, all the time, followed these patterns. They were changeable from one individual to the next, from time to time and across settings. Each student’s case must be individually evaluated.

In this study, the majority of the students held attitudes and opinions which changed depending on the particular aspect of school and learning in question or over a period of time, as academic demands increased. Other students were consistently negative or consistently positive in their attitudes to school, learning, print, reading, writing, their own abilities and the responses of others.
The literacy profiles clearly indicated that an understanding of the unique nature of the learner is essential in teaching mildly and moderately intellectually disabled students. This emphasises the need for teachers, educational planners, policy makers and professional agencies to look at all aspects of the student and his/her literacy when making key educational decisions such as school and class placement, curriculum development and individual programming. Having examined the nature of the individual learner, we must then look at the contexts in which literacy learning takes place and other influences on it. The following chapter explores the influences of the home and family on literacy learning.
CHAPTER 6  HOME AND FAMILY INFLUENCES

Introduction

A major theme which emerged from the literacy profiles was that of the influence on literacy learning of the home and family. Within this theme are included all those home and family circumstances, both past and present, which had an impact on the students' paths of literacy learning. The literacy profiles highlight the differences in students' experiences and demonstrate the importance of home and family factors in literacy learning. Those factors are:

6.1 Familial history of disability
6.2 Family relationships
6.3 Literacy environments at home
6.4 Parental influences
6.5 Sibling influences
6.6 Involvement of parents with school personnel and professional agencies

6.1 Familial history of disability

Knowledge of family backgrounds and histories of disabilities is an important factor in determining the nature and level of a student's disability which, in turn, has a major influence on his/her ability to learn. Intellectual disabilities are often hereditary in nature and families can provide valuable information on the ways disabilities have manifested themselves in the past.
Disabilities of varying kinds were common among the families of the students studied as well as among the students themselves, ranging from mild impairments of unknown cause such as in Kate's case, to George's cerebral palsy which affected his lifestyle greatly. Only three students, George, Mitchell and Micky, had a known cause for their disabilities. The cause of George's disability was cerebral palsy, resulting in a moderate intellectual disability. Mitchell's problems were caused primarily by the hereditary Fragile X Syndrome and Micky's moderate intellectual disability stemmed from a head injury in the first months of life.

The mild or moderate intellectual disabilities displayed by other students in the study had to be inferred from their family backgrounds or other sources such as the extended family which also provided a background on which to build a picture of a student's learning. Seven students had close family members with disabilities, although their causes were unknown. This information is valuable to educators' understanding of the context of disability and its influence on students' learning as it gives a more thorough description of the family and the home environment in which the student lives.

Brian had two non-disabled younger sisters and three elder brothers, two of whom suffered a moderate intellectual disability, and a father who, although not academically tested, to my knowledge, was unable to read or write. This resulted in Brian being part of a family who had already learned how to cope with intellectual disabilities. His brothers were sufficiently independent to care for themselves and to travel successfully in the local area. In order to do this, coping skills were developed, such as visiting familiar shops, learning the meanings of particular signs or noticeboards, relying on family and friends and using familiar routes for travel. Brian was able to learn these skills through his interaction with his disabled siblings.

Ros's mother, who spent considerable time in the IM and IO classes at Payton High School, also demonstrated very limited literacy skills. She frequently came to the classes to help with craft and other manipulative activities and joined the class to receive assistance with written work from myself and the teacher's aide. Ros benefited from her mother's presence in the class as they shared in her learning experiences at school and could help one another.
Martin's family was one where disabilities were common and neither parent was able to read or write. A paediatrician who investigated the family background reported that Martin's mother had six cousins who were blind and grandparents who were first cousins, one of whom had Down's Syndrome. Martin's father had an elder sister who was deaf, suffered from scoliosis and showed evidence of developmental delay.

Martin's sister was also in the IM class at Payton High School. Since this study was undertaken, two more children have been born to the family, one of whom was deaf and one who died shortly before birth. The effects of these disabilities on Martin's literacy learning were many. They included the fact that medical intervention was introduced early and that academic learning took a low profile in the family, impacting on the success of programs provided by the school.

Kevin had two brothers with mild intellectual disabilities and both his parents were non-readers. Mark's mother had been in a special class for students with moderate intellectual disabilities. Shane and Karen, the brother and sister in the study, were both assessed as having a mild intellectual disability. Their mother, although not officially classified, had difficulty reading and writing beyond a very basic level.

**Summary**

This information adds to the total picture of each student's learning environment at home. Disabilities within the family played an important role in assessing the nature of the student's learning environment at home and the relationships between family members, both positive and negative. In families which had more than one member with a disability, family expectations of literacy and academic learning appeared to be lower than in the families in this study where other disabilities were not present (Eric, Jane, Warren, Max, Kate, Simon, Clive, Micky, Pete and Jackie).
It was evident that these families did not place a very high priority on formal schooling and were rarely seen to support the literacy activities undertaken in the classroom. The students had less access to printed material at home and fewer opportunities to witness role models of competent readers and writers. In the other cases, where there was no evidence of disabilities in any family members, parents were more actively involved in gaining the best educational opportunities for their children and the home environments tended to provide better access to print and demonstrations of reading and writing behaviour.

Yet, these assessments of family backgrounds as supportive environments for students' literacy learning are not always accurate predictors of their achievements as the literacy profiles in Appendix A illustrate. Students from families with a history of disabilities and poor support for literacy and learning, for example, Simon, Karen and Shane, were in the higher and middle groups based on literacy knowledge and abilities while those from families without a disability history such as Eric, Jackie and Mitchell were spread across the three groups.

So while knowing the family history of disability is important in understanding the literacy learning of students with mild and moderate intellectual disabilities, it is only part of the equation. It does provide vital information on which to base educational decisions about further testing, class placement, and individual programming, but it is just one of a complex of factors which combine in each student's case in producing their literacy outcomes.

6.2 Family relationships

Family life and the relationships between siblings and parents had an impact on the learning behaviour of the students both at home and at school. If a child with mild and moderate intellectual disabilities is under pressure at home because of conflicts or changes to family structure, it can become difficult for him/her to bring full concentration into the classroom. Family dynamics and the relationships between family members featured in the literacy profiles from data out of the interview transcripts and anecdotal records which tracked daily occurrences.
Conflict situations existed in some of the families which often manifested themselves in how students performed in school-based tasks. Some experienced minor and commonplace family conflicts, but these did not stand out as interfering with their behaviour and work in class or during related activities. Others experienced major conflicts such as in the families of George, Karen and Shane, Kate, Mitchell and Warren.

Being adolescents at the time of data collection the students could be expected to experience some conflict at home in the course of their everyday lives. Although conflict is common in families of adolescents, many students with intellectual disabilities are not as emotionally well-equipped to deal with it as their non-disabled peers and minor problems often escalate as a result.

George, for example, frequently experienced emotional turmoil at school, stemming from problems at home which included minor conflicts with his sister, arguments with his mother and general family disturbances concerning the father, no longer living with them. George found it very difficult at times to cast his family pressures from his mind and concentrate on the classroom task at hand. Kevin, too, often came to school dishevelled and upset, but his limited expressive language skills restricted his ability to talk about his problems.

Karen's and Shane's family was also a frequently disrupted one, with changes of people living in the family home. Their younger sister moved between the grandmother's and the family home and the mother had several partners staying at the house for differing periods of time. There was evidence of violence in the home, sometimes between Shane, Karen and/or their mother. The Department of Community Services was involved in trying to address these problems.
Both of Shane's later primary school teachers stated in their interview that his family conflicts and his unsettled home life affected his behaviour at school and the level of commitment he was able to bring to the learning situation. They, like me, knew the family reasonably well and were most concerned about the effect of the family's problems on all of Shane's learning. Shane was a relatively capable boy, whose innate ability alone placed him in Group A in the literacy profiles. But his volatile emotional state meant that he achieved more in the IM class than in mainstream as the situation was more controlled and less threatening.

Karen, too, experienced difficulties which did not seem to affect her schoolwork as much as Shane's as she displayed more self control and less misbehaviour than Shane. Karen's IM teacher in Year 8 agreed that problems at home may have been a major source of mood changes, low self esteem and lack of personal confidence, all of which were reflected in Karen's poor academic performance. In her Self Description Questionnaire, Karen indicated that she felt negatively about her relationship with her mother, that the two did not talk much except to argue and that they spent little time together.

In spite of these difficulties, Karen's literacy skills were relatively high and she was placed in Group A in the literacy profiles. As with Shane, this was because her natural ability was generally above that of her IM peers. Without these problems, Karen may have progressed much further in her literacy development than she did.

Kate was another student who appeared to show emotional reactions to changes in family structure. Until Year 5, her records did not refer to difficulties at home but, during that year, her father left home and the primary school teacher believed that this affected Kate greatly, interfering with her schoolwork because she was unable to concentrate. Yet, according to her teacher, since the separation of her parents, Kate became more reliant on the friendship structures available in the IM class, which allowed her to settle quickly and revert to her usual practice of completing all tasks set. This, combined with the teachers' knowledge of the students' home situation and her special class placement, were shown to be helpful in facilitating her literacy learning.
Family relationships had a visible impact on Martin, Mitchell and Warren at school. Martin experienced mood changes which seemed to relate to his family situation and often resulted in a lack of willingness to participate in classwork. He was absent from school frequently because of the difficulties at home, including a month at a time on the recommendation of the Department of Community Services. Martin lived in a very difficult situation at home, trying to cope with lack of primary care, disabled family members, unemployment and lack of routine.

Mitchell experienced difficulties in controlling his behaviour. His mother had problems in dealing with his challenging behaviour at home similar to those experienced by his teachers at school. There was a period of family conflict during the time of data collection where his stepfather and mother were having relationship problems, resulting in his leaving the family home. Mitchell's family problems often took his entire attention and he became so emotionally embroiled in what was happening at home that he was unable to focus in the classroom situation. This affected not only Mitchell's own learning, but that of other class members whose lessons were disrupted by his misbehaviour.

Warren gave a glimpse of his family life in his description of his attempts to read at home. In his interview, he stated, "...like, if I read to my Mum, my brother always butts in and Mum yells at him. I lose concentration quickly". Warren's primary school teacher felt that his mother was overprotective of Warren, and mollycoddled him by allowing him to stay home for long periods with minor or imaginary illnesses. He stated also that very little in the way of home duties was expected from Warren and this affected his perceptions of what was required of him at school. I found the same pattern when Warren was in his first year of high school.
**Summary**

Situations at home affected some students' literacy learning at school by influencing their attitudes towards learning, their moods in class and their willingness to engage with print. The literacy profiles demonstrated that when students were angry or upset about happenings at home, their behaviour at school deteriorated and it was much more difficult to get them to participate actively in class activities. Relationships at home often coloured the states of mind with which the students came to school and conflict situations or emotional pressure often had a significant impact on their ability to attend to tasks in class.

### 6.3 Literacy environments at home

The home environment can be conducive to developing skills in literacy in a number of ways. The kinds of language used in the home influence the vocabulary of those within it and the styles of language use which the children develop as their own. Familiarity with print can be enhanced through the reading of books to children, an abundance of reading material in the home and the use of print as a matter of everyday occurrence. Evidence of supportive literacy environments existed in the case study data although not every case resulted in literacy competence. Nevertheless, there was a trend which showed that students who operated within positive literacy environments did tend to develop corresponding positive attitudes to their own literacy learning and were keen users of print.

Clive's family was one where reading and writing activities were common, with the parents being active readers and both siblings competent in written language use. Eric's family, also, used print regularly at home. Eric was exposed to a variety of literacy practices and his parents always encouraged literacy learning by showing him that they valued reading and writing as useful tools and for pleasure.
Eric was provided with any printed materials he required, such as storybooks as a toddler and health and fitness magazines as a teenager. He was constantly exposed to examples of the importance of print in everyday life as he saw his mother reading magazines, books and recipes and his father reading books, the television guide, magazines and newspapers. Eric was aware that both his parents were competent readers and developed a love of books and reading for himself. Both Clive and Eric were independent readers and enjoyed interaction with print.

A similar example of a supportive home literacy environment was Micky's family. Micky belonged to a very active reading family who demonstrated that they strongly valued books and reading and encouraged Micky to do the same, as his mother described in her interview:

Yes, even his younger sister who's six. She ... we're all good readers. That's one thing I've always ... his father and I with both the kids that as far as books and that go we've always had lots of books. Books for Christmas, birthdays. If somebody would suggest, you know, ... what do you want ... what can we get the children, I'll often say books. I've found, just going from other couples, friends of ours who don't read to their children much ... they're not interested in books. Micky always ... and still has ... his favourites. He loves comic books and things like that. My mother got into that habit of buying him comic books.

Micky's home was a place where books and other printed matter were abundant, very highly regarded and actively encouraged. Like Eric and Clive, Micky, too, developed a love of reading and it became a feature of his learning and a recognised strength. These three families are examples of how a positive literacy environment at home can influence literacy learning. The most capable readers in the group came from homes where reading was valued, good models were constantly available and print was abundant.
On the other hand, there were a number of families where, for a variety of reasons, availability and enjoyment of reading and print were not as common. The following four families show the effects of a poor literacy environment at home. In Brian's family, the father and three of the four boys experienced difficulties in reading and writing to some degree, while the mother and two girls were more capable. The use of print was not common, with only three out of eight family members being competent readers.

Brian and his mother did not describe their family as a reading one, but Brian's mother did read to him as a toddler. This practice ceased after the youngest daughter arrived when Brian was seven years old and his mother found that she lacked the time to spend with the others. Brian himself did not demonstrate a great deal of knowledge of print and its purposes and was not a keen reader.

Kevin's family was another example where printed material did not feature in the home. Both parents experienced difficulty in reading and writing and Kevin's two brothers were placed in IM classes. Although the nature of Kevin's disability alone might have prevented his reading development, the poor literacy environment at home did not enhance what innate abilities he had. At school, however, he showed an interest in print and took pleasure in books. Kevin's obvious engagement with and enjoyment of the texts such as "Rocky's Fox" from the Wellington Square series clearly demonstrated this.

Pete and Martin, also, lived with families where print was not used on a regular basis. While Pete had great difficulty in mastering the reading process, he did enjoy listening to stories in class and looking at books with pictures. Pete responded well to school learning and it was clear that, compared to the others, he was positively disposed to this kind of learning experience. Neither Pete's nor Kevin's families showed support for this positive attitude to stories that was shown at school. Neither set of parents was active in reading and did not share their children's enjoyment of books.
Martin, on the other hand, showed little interest in books and print at all. However, his poor family environment and his troubled life at home made school and all it entailed take on less significance for him than for some of his peers. This was shown through extended and frequent periods of absence and the apparent lack of interest in school affairs by his family, an attitude also adopted by Martin.

The other students in the study came from a range of home literacy environments which fell between the very positive and very negative situations described by the examples above. George was aware that his family was not a reading one; Warren had some print available at home; Max's family members were occasional readers and had supported his early learning at home and both Ros's and Mark's families encouraged reading, but lacked high level skills.

**Summary**

These examples demonstrated that literacy environments at home is an important issue to take into consideration when looking at the literacy learning of intellectually disabled students. Those who come from positive environments where print is common and engagement with it is encouraged, are already gaining the print knowledge needed for successful literacy, such as the purposes of using print, its structure and different forms and the possibility of gaining both pleasure and information from it. Many of these students will have gained some basic reading skills from their home environment and, in homes where using print is encouraged, will continue to practise the literacy skills being developed at school.

Those students whose home literacy environments are less positive have more ground to make up at school than those who don't. They are less familiar with many aspects of literacy; they need more time at school to develop their skills; they must rely on school to provide reading material, encouragement to use it and the time to practise their skills. The literacy profiles have demonstrated the benefits of a positive literacy environment at home and the opportunities for advancement of literacy that they provide.
6.4 Parental influences

In some cases, students' basic physiological and emotional needs were not always met. It is not difficult to understand, therefore, why the need for literacy learning within a formal educational setting was not a high priority in the daily functioning of these families. Three students in particular (Kevin, Martin and Pete) experienced problems in basic care at home which adversely affected their learning and behaviour at school.

Kevin sometimes came to school ill-cared for and dirty, occasionally bruised and scratched, and with inadequate food. Kevin was frequently absent and often came to school angry and upset, but as he didn't speak, it was difficult to determine the cause of his emotional state. Martin's family was also a dysfunctional one, according to the Department of Community Services, who intervened frequently in order to ensure that primary care of the children was being provided. There were problems of neglect in the form of inadequate standards of hygiene and lack of appropriate medical attention. During the period of data collection, Martin sometimes came to school underdressed in winter, not bathed and wearing unwashed clothes.

Pete, too, lived with minimal primary care. The Department of Community Services was involved with the family over matters of nutrition, hygiene, lack of appropriate clothing and inadequate supervision. Pete's primary school teacher had been particularly concerned over late nights Pete had spent outside the local hotel. In spite of these problems at home, when Pete came to school he was always cooperative, pleasant and enthusiastic to participate in everything offered.

In all other cases, primary care did not feature as a problem. The families of Eric, Clive and Micky cared for them very well. These three students were among the most settled at school in their secondary years, their learning and behaviour being consistently good.
One major role for some parents in their child's learning development was the early detection of the disability and subsequent intervention, if appropriate, at an early age. Early detection of disabilities occurred in 12 of the 19 cases, with ten of those occurring before the child reached pre-school age. George's cerebral palsy, Mitchell's Fragile X Syndrome and Micky's head injury led to the identification of learning difficulties as babies.

Jackie's disability was detected from an early age as she did not sit and roll as expected as a baby. Martin's inability to fixate and his general unresponsiveness was noted by his mother in babyhood and she became involved with the Early Intervention Unit, Department of Disability Services. The unit's report, issued when he was four years old, described his background thus:

Martin comes from a severely deprived psychosocial background. It was felt that if Martin received more stimulation throughout the language program, preschool and a social worker having regular contact to ensure the family was following through with this stimulation, Martin's development would progress rapidly.

However, there was very little follow up as a result of this report or any other suggested interventions for Martin's family. The Department of Community Services was in close contact with the family over a number of years with few positive changes in the circumstances in which the children lived. The school had similar difficulties in bringing about any changes to the situation at home which adversely affected Martin's participation in class activities.

A common method for detecting an intellectual disability in the young child is a lack of speech development often noticed first by the parents. Clive was two years old when his parents decided to investigate speech therapy for him and followed through the programs suggested. They also supported his early learning by agreeing to his repetition of Kindergarten.
Eric, at two years old, was noticed by his parents as being slow to learn to talk, but they were referred to a special school rather than a speech therapist because of Eric's global delay and supported him in his placement there. Kate, Mark and Max were all slow to learn verbal language too, this difficulty being recognised by the family prior to pre-school age. All three were referred for speech assessments and ensuing therapy gave positive results.

Two cases, Ros and Kevin, although identified early, were not acted upon by the parents, but recognised at school, where intervention began. Although Ros's parents became aware that she had some learning problems before she began school, the mother, in particular, felt ill-equipped to teach Ros to speak beyond "Mum" and "Dad" as she "didn't know much" herself. Kevin was officially recognised as disabled in pre-school, but his parents chose not to act on Kevin's lack of early development.

In the other seven cases, the disabilities were not detected by the parents, becoming apparent shortly after beginning school. Brian's disability was not acknowledged by his parents, but was noticed during his first few years at school. This was also the case for Pete, Warren and Simon. Warren's mother stated that he had "coped reasonably well" in his early school years and "was a little slower than the rest of the children in the class, but his school report was good". Warren's primary school teacher, in his interview, expressed the belief, supported by my anecdotal records, that Warren's mother was denying the fact of her son's disability.

Simon's parents had not been aware that he was experiencing difficulty in learning to talk until it was brought to their attention during Kindergarten. Karen's mild disability did not become obvious until school age, where she began to perform at a level below her age peers. Shane's mild intellectual disability was not detected until Year 2, when his teacher noticed that he was developing at a slower pace than his age peers. Similarly, when Jane went to pre-school, her mother noticed that her verbal language did not progress as she expected it to.
All of the students in the study were identified as having an intellectual disability before the end of Year 2. For Kevin, Simon and Martin, early suggestions for dealing with the disability were not carried through by the family. This resulted in the problems continuing without intervention until some action was taken at school.

Within the 19 case studies there were varying degrees to which the parents supported the literacy learning of their children. Support for literacy learning came most from families where some members, usually parents, valued literacy and believed that reading and writing were necessary and useful skills.

Brian, for example, was reliant on his family, including his mother, for assistance with his homework. He stated in his interview that he received help from his brothers as well as his mother and that he preferred to do his work with others. However, he did not like to read and refused to read as a set homework task. His mother did not force this and rarely signed his reading homework record, but assisted with other kinds of homework. The family appeared to be a close one. Brian often talked about his home life and rarely excluded his brothers from his recounts of everyday occurrences.

The levels and types of literacy support in the homes were as varied as the students themselves. Eric enjoyed a happy and settled family life with parents who were very supportive of him in all he did, including his literacy learning. Eric's parents accepted and encouraged any interest or ability he showed, such as his enthusiasm for fitness, which they supported by providing him with appropriate equipment and reading matter on the subject. Eric's schoolwork was always praised and encouraged at home and he received constant positive reinforcement for his achievements. Eric's parents never viewed him as a failure in any of his endeavours, a fact which was reflected in his own high self concept.
Kate was read to as a child, and although she and her mother did not describe themselves as a reading family, it was clear that Kate received support at home for her learning. As discussed in the next section, Kate's mother maintained close contact with what was happening at school from Kate's early years and co-operated with recommendations from educational and other professionals. Jackie's family was also generally supportive of her reading and learning. She developed an appreciation of books from a young age and her mother read to her when she was a toddler, allowing her to choose her own reading material.

Mark was read to as a child and enjoyed this practice until the end of primary school. His family was supportive of all that he did but his mother, having been categorised as moderately intellectually disabled herself, felt that she did not have the skills necessary to offer assistance with schoolwork. She considered Mark to be quite academically competent and showed interest in all his endeavours.

Max's parents played a significant part in his literacy learning. They tried to teach him to talk as a toddler, having recognised his delay, but without success. They developed activities for him to do at home such as matching words to pictures. The family was a reading one and Max was frequently exposed to print as a part of everyday life. In class at times, Max was reluctant to show his work, considering it of an inadequate standard.

Micky was a child whose disabilities were manifested in many ways. His mother showed an in depth knowledge of her son and was able to share this knowledge with school staff and other professionals. He displayed some very difficult behaviours from his early school years and his parents were extremely supportive of all endeavours to allow him to learn as much as he could. Micky's home was a place where reading and books were ubiquitous, very highly regarded and actively encouraged.
Micky's parents and I maintained close verbal contact with reference to his learning difficulties and social and behavioural management. After the initial conflict surrounding his injury, the family consisting of the mother, a younger sister and a stepfather, became a settled and happy one. Micky's primary school teacher agreed that his parents did all they could for him in a very positive manner. In our interview, he stated that he formed this opinion

... because the parents have so much influence on the child ... (Micky), (and his) parents fully accept where he is. They fully accept what Micky is. Extremely realistic people. Dad, who's not the natural Dad, but is 'Dad' is an incredible man. He's so supportive ... but they realise that Micky will always have a problem.

Other families were not as encouraging of literacy endeavours as those described above, there being individual reasons and practices within each. The situation in George's family did not always favour George's academic development. His mother worked full time and experienced some problems in communication with his father, who had separated from the family and spent considerable time in psychiatric care.

Both George and his mildly intellectually disabled younger sister demanded attention from their mother due not only to the nature of their disabilities, but also to George's unacceptable behaviour at school. Although there was evidence of homework being completed, George rarely had assistance with it. There was little support for reading at home and George was generally left to cope as well as he could with the academic demands of school.

Literacy endeavour did not feature in Shane's and Karen's family for similar reasons. The occurrences of everyday life took precedence over academic learning. Karen displayed some emotional disturbances which led to poor behaviour, an example of which was her refusal to attend school. Shane, too, experienced social and behavioural difficulties at school resulting in aggression and sometimes violent behaviour.
Both Shane and Karen were capable of literacy work at least at a high IM level. Shane was academically suited to placement in a mainstream class, but was hampered by a quick temper and influences such as peer conflicts and teasing outside the classroom. Their literacy achievements, which placed them in the higher group of literacy profiles stemmed mainly from their innate abilities, with disabilities in the very mild range and positive literacy learning environments at school.

The sincerity of the support given at home for literacy learning was difficult to judge in both Warren's and Pete's cases. Warren's mother showed that she cared for him by meeting all his basic needs and demonstrating an interest in his schoolwork. His primary school teacher, however, stated that the mother's attitudes and expectations towards Warren's learning were unrealistic. "She found it difficult to accept that Warren was intellectually disabled and that he was never going to be a mainstream child". This was a view with which I, during the time of data collection, came to agree. In reference to his reading homework, the primary teacher stated that "his mother would write 'Warren read this book really well' and I knew damned well he'd never opened the book".

Pete's parents, similarly, on being interviewed, were always positive and outwardly supportive of his literacy learning, but there was little evidence of actual help with his reading or homework and Pete could not rely on support of any sort at home with his schoolwork. Kevin's family had yet another different set of relationships. From an early age, there was no evidence of support at home for schoolwork. It appeared that neither the parents nor the brothers greatly valued literacy and little was done to help Kevin with projects or activities he brought home from school.
Parental expectations of their children varied also, but one common thread was that the parents expected their children to achieve as much as they could, according to their abilities, at their own levels. An exception to this was Warren, whose parents found it difficult to accept his disability and believed he was more capable than he showed. The parents who held positive expectations knew their children well and were aware of their strengths and limitations. Their expectations were often linked to what the rest of the family had achieved.

Eric's family was realistic and non-judgmental in their hopes for Eric to lead a happy and productive life, regardless of the limitations placed on him by his disability. Clive's and Micky's families, also, wanted only for them to be happy, settled and as self-sufficient as possible. If they were doing their best and behaving well at school most of the time, the parents were satisfied. Warren, Simon and Mark were expected to perform well enough at school to find employment when they left. In all three families, the fathers were employed in unskilled positions.

Parents of seven of the students (George, Mitchell, Jackie, Max, Kate, Ros and Jane) were unsure of what their children might be doing when they left school, but expected that they behave well and try their best. This group of parents did not expect their children to use language at a level that might be expected of their non-disabled peers, but assumed that they would be able to function well in their communities. This assisted in building the students' positive beliefs in their own abilities and allowed them to live and work without unrealistic parental pressure.

Kevin, Pete, Karen and Shane, Martin and Brian all came from families which were either dysfunctional or had other members with significant learning difficulties. These parents felt that their children would do much the same as they had. Kevin and Shane, for example, were expected to work with their fathers, both in the building trade, after leaving school, while Martin and Pete were expected to continue living in the family home. Brian's family expected him to do his best and nothing more, but were pessimistic about his future prospects given his mother's comment that "like everyone else, he'll join the unemployment line".
Summary

Early detection of disabilities was important for the subsequent learning of the students, particularly in literacy, as it was often in speech and language that the disabilities initially manifested themselves. The attention of parents and teachers was drawn through early identification to the need for more detailed assessment, medical intervention, the possible need for special placement or individual programs, home support for literacy and learning in general and in some cases led to a positive relationship between the home and the school. Although these ways of improving students' learning outcomes were not always taken advantage of, in the cases where they were, the results were shown to be beneficial.

As in all learning, a supportive group of parents, family members and teachers is valuable in encouraging students to use their literacy skills and to undertake all aspects of schoolwork. In some cases where parents and families did not value school and literacy, the students adopted similar attitudes and did not approach literacy tasks in as positive a manner as they could. Conversely, in homes with constant, positive literacy support, such as interest in what was happening at school, help with homework and the demonstration of positive attitudes to literacy, the children tended to be more willing to attempt challenging literacy tasks at school and participated more positively in class activities.

However, there were also exceptions to this pattern. Karen and Shane experienced a negative environment at home, yet achieved positive literacy outcomes at school. On the other hand, Mitchell remained in the lower literacy group (C) although he had a positive home literacy environment. These discrepancies indicate that there is a wide range of influences on literacy learning, with each individual being affected in a different way. While trends appear, it is necessary to maintain a holistic view of literacy learning and consider all influences on it.
The main impact on literacy learning of these expectations was in the attitudes that the students brought to their learning situations. Those students whose families held positive expectations, such as Eric and Clive, tended to approach tasks with the attitude that they were capable of completing them and that their attempts would be accepted and praised. Students from families with negative expectations, such as Brian and Shane, felt that acceptance was not automatic, that their attempts may not lead to anything significant and that they had no real purpose. These attitudes directly affected the effort which was put into literacy activities in the classroom and was reflected in the outcomes of the tasks.

These long term expectations, which varied widely influenced the expectations that the students held for themselves. Although potential expectations might not have been obvious always to their children, they were present in their day-to-day interactions, subtly influencing the attitudes that the children brought to their learning situations. The students' attitudes to their own learning were very much affected by the opinions of those close to them such as parents, siblings, peers and teachers. These varied widely from student to student, across time and in different settings.

6.5 Sibling influences

Siblings performed three main roles in students' literacy learning. The first one was that of setting an example of someone more capable in literacy than the student him/herself. In the families where this occurred, these brothers and sisters were both older and younger than the participants in the study, both able and disabled, but often demonstrated that reading and writing were of practical use and hence valuable. For example, Clive saw his sister making her way successfully through University, while Mark, Max, Micky and Simon had siblings in mainstream classes at different levels.
The second role played by siblings was that of lending assistance at home with schoolwork, which was evident in Brian's descriptions of his homework and the help he received from his brothers. There was evidence that this assistance also occurred for Warren, Simon, Shane and Ros. A third role played by siblings which parents felt was significant was the situation where older brothers or sisters "spoke for" their younger siblings as toddlers, thus affecting the speech development of the latter. This speech assistance was present in the families of Brian, Simon and Shane, where they had older brothers or sisters who were more capable in verbal language than themselves. In this way, these students provided contextual role models for speech, but also removed some of the need for the younger brothers and sisters to speak for themselves, delaying speech development.

Simon's parents were unaware that Simon was not learning to talk as expected until the age of five, when it was brought to their attention by the school staff in Kindergarten and he was referred to a speech therapist. They claimed that they were not concerned about Simon not learning to speak as "his brothers spoke for him". Shane's mother felt that his older sister, Karen, inhibited his speech development by "speaking for him" from the time he was born, negating the need for Shane to speak in order to have his needs and wants fulfilled. The mother in this family considered that Karen's influence here was considerable, and commented on the fact that Shane spoke more when Karen was not present.

**Summary**

The impact in the classroom of this kind of assistance was that the students who had relied on siblings in the past were left without that support and had to acquire quickly the independence in communication that their peers had been developing for some time. For some of these students, evidence of sibling dependence in the classroom was shown in the anecdotal records through instances where these students were reluctant to take on tasks without assistance.
6.6 Involvement of parents with school personnel and professional agencies

In the area of intellectual disability and special classes, teachers and other professionals are often in contact with families, seeking support for educational interventions. Two major aspects of this contact are a) assessments, interventions and placements; and b) the relationships between parents, schools and professional agencies.

Some parents reacted more positively than others to the assessments, interventions and suggestions put forward by people outside the family. Initial placement in a special class was an issue that parents raised when discussing the early learning of their children. Parental reactions to initial class placement set the scene for the students' early learning settings and the attitudes of the parents were important in how the students themselves felt about them.

George's mother was pleased when he was placed in an IO class as it "... suited his needs. It allowed him to be himself and reduced the need to compete". It also meant that, as his mother wanted, his individual needs in literacy learning could be more appropriately met through an individual education program. Kate's mother, too, made the comment that she was "glad if that's what's needed". Kate was unhappy in a mainstream class and struggled with the academic work required of her, particularly in the area of literacy. In light of this, her mother was satisfied that the school had begun to address Kate's needs and was more supportive of the school as a result.

Initially Mark's parents wanted a mainstream placement for him, but were convinced by the school staff that the IM placement was the most appropriate alternative and by the time he was in high school, they were very impressed with the progress he had made in that setting. This change in attitude was a positive step for Mark's literacy learning, as his parents gained a more realistic view of his potential abilities.
Micky's mother maintained close and positive contact with the school and, in her interview, explained her reaction to Micky's class placement in Kindergarten as one of relief and fulfilment of expectations. This might have confirmed her beliefs about the extent of Micky's potential abilities and made it easier for her to lend realistic support in providing appropriate literacy learning experiences at home. As his mother explained, he was

... pulled out of mainstream, had to be assessed then we were told he would go into IO. We sort of expected it. I was relieved in a way because I knew that he would have a better chance of learning with a Special Education teacher and fewer children in the class. Micky had a cerebral haemorrhage when he was a few months old. I knew his learning would probably be affected in some way.

The families of Pete, Ros and Simon all responded positively to the special class placements of their children. When Pete moved into an IM class in Year 2, his mother felt "very good" about this change and thought that from there he "went on in leaps and bounds". Ros's mother's comment was that IM placement was "good because she was actually getting the help that she needed, that I couldn't get at school".

Simon, also, was supported by his mother in his move to an IM class as she was aware that he was not coping with Year 2 mainstream work. Another change occurred, instigated by Simon's mother, when he moved from another local comprehensive high school to Payton High School as his mother wanted to "get him away from children who were influencing him". This was due mainly to his poor behaviour which improved with the move to his new school, thus improving all aspects of his academic development.
Clive's family was particularly supportive of Special Education professionals in finding the right placement for him. When Clive was first placed in an IM class in Year 3, the mother believed that this move had been "the best thing ever done". The family worked co-operatively with speech therapists to whom Clive was referred by implementing the home programs developed by them, with significant results in increasing his verbal and written vocabularies.

In Year 9 Clive tried a mainstream placement but did not reach the academic and social expectations of his teachers and parents. The parents, in conjunction with counsellors and teachers at both his present school and Payton High School, decided that he would gain more from an IO class rather than an IM placement. This was the direct result of the parents' belief that Clive needed a more supportive and protected environment than he had experienced thus far, as they felt he was in a "fragile state of mind".

Clive's family was supportive of him in his learning and played a significant role in his placements. The settled family home provided a stable environment in which Clive was able to make these changes. The families of Eric, Jackie, Brian, Kevin, Martin and Mitchell all expected special placement from an early age and felt it was appropriate. Max's and Warren's families also felt that special class placement would help their sons to learn.

However, not all the families of the students involved in the study reacted as positively to the change to Special Education for their children. Jane's mother was particularly upset with Jane's reception into Kindergarten and stated that "she was not taught well in her first year. It was because they didn't want her". Jane's mother explained in her interview that she thought Jane was not welcomed into the school because of the learning difficulties which had been identified in pre-school thus impeding her learning.
Shane's and Karen's mother also held a negative attitude to special class placement as shown in her interview. In Shane's case, his mother thought that the IM placement had resulted from his poor behaviour rather than an educational need. In his sister Karen's case, she stated that in Kindergarten, "the teacher had her favourites and Karen was not one of them". She had difficulty at times in encouraging Karen to go to school at all and expressed the opinion that this was the fault of her placement. In her interview, the mother said that both Karen and herself considered special class placement a punishment and believed that Karen's move there had been unfair.

Parental attitudes to special class placements were important because the children, especially in the early years of learning, were very receptive to how their parents were feeling and often copied their reactions. The attitudes that the students brought to their learning situations permeated all aspects of learning, including literacy, in the ways that tasks were approached and the commitment and perseverance brought to them.

However, there were inconsistencies within these general patterns. Although Mitchell's parent's attitude was positive, because of his Fragile X Syndrome he was unable to learn successfully in the special class environment. Jane enjoyed her classwork and responded positively in spite of her mother's perception that the original placement was unsound. In some cases, such as Pete, Martin and Kevin, opinions of the parents were neutral and these students had mixed attitudes. These discrepancies again bring attention to the unique nature of the learner on literacy learning.

The level of co-operation between parents and professional agencies varied greatly among the students in the study. Kate's mother co-operated with the pre-school recommendation that Kate undertake speech therapy programs at home in order to increase her verbal competence. As a result, the pre-school teacher observed an increase in verbal comprehension. Ros's mother, too, was very supportive of school and class activities and showed this support through attendance in the IM and IO classes at school, rather than independent assistance at home. Ros was exposed to a positive attitude to learning by her mother's participation in school activities.
Jackie's parents were in frequent positive contact with the school and often worked co-operatively on behaviour management programs. Eric's mother was the teacher's aide for the IM and IO classes and was closely involved with all the students every day. Mitchell's mother, because of his erratic behaviour, was often called to the school and kept contact in co-operation with staff in the management of his problems.

Max's family was more practically oriented in their co-operation with the school and other professional organisations. They followed through the recommendations of speech therapists made in pre-school and kept close contact with the school during Max's infants years. In his early childhood, these home programs consisted of drill of sight words and the practice of recognition of letters and their corresponding sounds, achieving positive results. In later years, the parents became less practically supportive of Max's learning, as there was little that the school asked of them at home.

Some parents chose to be less involved and co-operative when dealing with school personnel and other professionals. Karen's and Shane's mother, for example, had frequent, but not always pleasant, contact with the school, mainly due to Karen's prolonged and frequent absences and Shane's behavioural difficulties. She usually found their behaviours challenging and was unable to act on the recommendations of the school, except to supervise suspensions where necessary.

Kevin's family was often called to the school because of his behaviour. Kevin had several late nights, evident through his knowledge of movies shown in late-night time slots and was frequently asleep or irritable in class. His parents rarely followed up contact from the school and felt that his sleepiness and misbehaviour were an accepted part of his disability and something that could not be changed. Kevin left school abruptly at the end of Year 9, shortly after turning 15, with no explanation from the parents.
It was unusual, also, for Martin's family to follow through any recommendations of social, medical or educational origin. As stated previously, this may have been due to the fact that as his home situation was so difficult, his parents found it impossible to act independently on the advice of others. From my observations of Martin, as his teacher during the period of data collection and through my experience within Special Education, I would have expected him to measure in the range of moderate intellectual disability rather than mild. Yet, he measured as an IM student through psychometric assessments, thus indicating that perhaps his home life affected his learning more adversely than his innate abilities suggested so that school programs were less effective than expected.

**Summary**

The two main areas where parental involvement with school and professional agencies had a major impact on the students' learning were in their reaction to initial special class placement and their level of co-operation with educational and professional agencies. In the cases where the parents felt that special placement was appropriate and desired, the students responded well in their first few months of being in an IM or IO class and participated as expected in the activities prepared for them.

Co-operation with teachers and other professionals and follow up of suggested interventions also affected literacy learning as it guided the attitudes that the students brought to the programs designed for them. Students whose parents were co-operative and supporting gave the impression that they valued these learning activities and that they were available for the students to rely on for help, encouraging positive learning attitudes.
6.7 Conclusion

The influences of the home and family must be viewed in conjunction with other influences on learning such as the disability itself, social and emotional development and school issues. The state of mind of the student permeates all that he/she does, perhaps more so for students with intellectual disabilities than their non-disabled peers as they tend to have less control over their emotional reactions.

Particular family circumstances, both positive and negative, either supported or hindered the effectiveness of classroom activities and individual programs. In some families where the primary needs of food, warmth and hygiene were not met, the higher order needs of literacy and a formal education took a lower priority. This became evident in frequent absences from school due to home difficulties and the requirement of the school staff to meet these basic needs when the child concerned was present. Conversely, where there was support at home for literacy endeavours, this served to bolster the children's attitudes towards books and reading and in some cases led to a love of print and the successful use of reading and writing as tools of communication and pleasure.

Early detection of the children's disabilities proved to be a crucial feature. All of the students in the study were identified as experiencing some sort of intellectual disability by the age of eight, often earlier. The result of these early identifications varied greatly from student to student, depending on the action, if any, which was taken. For most of the students, early intervention in the form of speech therapy, medical and behavioural programs and special class placement resulted in positive outcomes, such as an improvement in the disposition of the child, more appropriate behaviour and increased verbal and/or written competence. Such intervention set the child on a pathway to learning, the outcomes of which varied according to how the array of other factors impinging on the intellectually disabled learner interacted in educational contexts.
Looking at the development of the child as a whole and at his/her literacy learning in particular, it is clear that those students who lived and worked in a positive home literacy environment where there was modelling, provision of materials, encouragement, praise and acceptance of reading and writing attempts brought to the learning situation of school a sense of the value of print and of the skills of reading and writing. The provision of an environment where books and reading were prolific stimulated the innate abilities of the students to process print, assisting them to develop positive attitudes to the processes of reading and writing.

Eric, Clive, Micky and Jackie, four of the more capable readers all came from particularly supportive homes. On the other hand, there was evidence of negative attitudes to books and reading presented by Martin, Karen and Brian, who had little support for literacy learning at home. For students with disabilities, blocks to learning are already present so it is important that the students’ learning environments at home and at school be as positive as possible in order for them to acquire literacy according to their potential. Family and professional support can play an important role here.

Family conflicts and unsettled conditions at home frequently interfered with the performance of students in class. Evidence of this from personal observations, comments by past teachers and anecdotal records referred to absences from school, fluctuations in concentration, irregular behaviour, changes in the levels of commitment to work, mood changes, lack of confidence and reduced self esteem. These effects on learning were many and varied across the student cases, and changed frequently as family circumstances changed making it particularly difficult to achieve any consistency in programming and daily teaching.

A major feature in the literacy learning of all of the students in this study was the involvement that parents had with other parties interested in the education of their children. Close contact with teachers is often a common occurrence in Special Education classes because of the need for co-operation between the teacher and the parents to ensure that positive learning outcomes are durable and transferable.
Pre-schools, schools and professional agencies such as hospitals, counsellors and speech pathologists played their roles, also, in the interventions that occurred in the children's learning processes. The attitudes of parents to such interventions including school selection, class placement, assessment procedures and results and the implementation of suggested programs at home and at school were influential in the pathways of learning taken. There was a very strong link in the literacy profiles between the issues at home discussed here and the influences on literacy learning in the school context. The following chapter explores the school issues which affected literacy learning for the students in this study.
CHAPTER 7  SCHOOL INFLUENCES

Introduction

School influences on the literacy learning of students in this study centred around four main themes. These were school intervention, class placement at school, supporting literacy learning in the classroom and behaviour management. School intervention most commonly took the form of speech therapy and special class placement or modified programs. Appropriate school and class placement of students determined the learning environments in which they worked, the level of assistance they received and the nature of the educational program in which they were enrolled.

Features of supporting literacy in the classroom included monitoring and programming for individual progress, behaviour management and the role of the teacher's aide. This chapter explores the significance of these school influences on the literacy learning of the students and the ways in which an optimum learning environment can be developed.

7.1 School intervention

Early learning was a recurring theme in the acquisition of literacy by students in this study which was investigated through school records and interviews with parents. Key needs identified were speech development, socialisation, basic physical skills and learning independence in personal care. One way these children's early learning needs were addressed was through early intervention strategies which were as varied as the children themselves.
For the purposes of this study, early intervention is defined as those programs and referrals which took place before the child's first year of school, the most common of which was intensive speech therapy. This involved regular sessions with individual programs designed by trained professionals to improve language knowledge, vocabulary and articulation. Such programs were sometimes implemented by speech therapists, and were often carried through by pre-school staff, volunteers and/or parents. Most parents expected some improvement in verbal language use through pre-school attendance and speech therapy and in most cases were impressed with the results.

Six of the 19 students in my study received speech therapy before entering school, with five reporting improvements. These improvements took the forms of increased vocabulary and better pronunciation and often led to further investigation of educational needs which affected subsequent school choice and class placement.

George attended pre-school for two days per week, then three and four, for two years. His mother indicated in her interview that there was a marked improvement in his verbal language development as a result of individual attention at pre-school, a greater improvement than she had expected to occur without intervention. Kate also received assistance at pre-school. Kate's verbal capacity increased after an intervention instigated by her teachers. She was referred to a speech therapist who provided intensive speech development programs to be undertaken at home. These were diligently followed by her parents, with a significant, positive result. Both Kate's parents and the counsellor to whom she was referred indicated that there had been improvement in language, especially in pronunciation.

Max and Ros also showed improvement in speech after a similar intervention organised through their pre-school with Max experiencing a high degree of success and Ros less so. Max's parents undertook a home program, while Ros's teachers at pre-school were responsible for the implementation of her therapy.
In these examples parents and professionals worked co-operatively to produce valuable results. Max's verbal skills reached a level where he could communicate successfully in most situations and Ros improved specifically in her pronunciation of words. Jackie attended pre-school where she received speech therapy also, resulting in an increase in her vocabulary. She was referred to a special class for Kindergarten.

Micky attended pre-school for two days per week from four years of age and received speech therapy, where he showed a slow improvement. His parents were supportive of the intervention, but were not convinced that it was solely responsible for his improvement, which they thought might have occurred with maturation, a positive home environment and general classroom stimulation.

Early identification of disabilities in the cases of Kevin and Martin led to particular educational placements. For Kevin, the recommendation made by a Special Education consultant was for a repetition of pre-school and placement in a special school. How effective this was is difficult to gauge as Kevin could demonstrate so little learning. He had extremely limited verbal skills and was unable to show in speech how much he had learnt. There was no evidence from his records or his parents' knowledge that there was any discernible change in his play, behaviour or speech which could be attributed to early intervention.

Martin demonstrated learning difficulties very early and, following a referral by the family doctor to an Early Intervention Unit, was enrolled in a pre-school for disabled children. Due to behavioural problems and a relocation by the family, he did not continue to attend. For both Kevin and Martin the effects of special placement at an early age are difficult to assess as there were other environmental influences acting on their development at the time such as the home environment, family conflicts and lack of primary care. Educational needs took a lower priority as their home lives were very unsettled.
Simon and Brian were not assisted by specific early intervention. Simon attended pre-school for three years from two years of age and began Kindergarten later than his age peers, but there was no evidence that special programs were offered. Brian, too, attended a regular pre-school with no special intervention. His mother found no marked change in Brian's language when he was at pre-school and no special recommendations were made.

As Warren did not attend pre-school, he was not referred for speech therapy until the Kindergarten year at school, where a special program was considered a high priority and undertaken by volunteers. Improvement in his verbal expression was reported. On advice from the specialists to whom he was referred, Warren also began an individual education program in the class, concentrating on co-ordination and language. He used shared resources from the local pre-school which offered advice regarding activities for a child at Warren's developmental level. However, his teachers indicated no evidence of a change in Warren's literacy learning.

The other nine students in the study did not experience any intervention in the early years before attending school at the age of approximately five, when they started in mainstream classes. In these cases, it was in the first few years of infants school that their disabilities were recognised, diagnosed and interventions and/or special placements were recommended.

Eric, Clive, Karen, Mark, Jane and Shane were relatively capable users of language in their early years without behavioural problems, which might explain why they were not targeted for early intervention. Pete's family did not choose to seek assistance for his difficulties and Mitchell's Fragile X Syndrome was being monitored from a medical perspective rather than an educational one at that stage. It is difficult to gauge whether lack of intervention may have had an effect on later literacy learning, but the improvements shown by those who did utilise special programs demonstrate the benefits of such interventions for them.
Summary

For most of the students who were identified as having a learning problem before they entered school, the interventions, individual attention and recommendations resulted in improvement to varying degrees, as seen in the cases of George, Kate, Max, Ros, Jackie and Micky. Speech therapy was closely linked to increases in verbal functioning as shown in the cases of Kate, Max, Ros and Micky. As it is acknowledged that having a wider repertoire in speech and a greater understanding of how verbal language works are essential to learning the processes of reading and writing, early intervention to develop these skills is necessary for those children assessed as lacking speech development.

7.2 Class placement at school

The educational needs of each student change with time, maturation and learning and the school system can assist in meeting these by providing appropriate placements at appropriate times. The centralised state school system within which the students in this study were enrolled was able to cater to some extent for individual needs in that it allowed children to start school at different times, repeat classes and move between classes as necessary.

Placements in IM and IO classes are available across New South Wales, so that transfer between schools is possible without further testing and students can be assured of a comparable placement within similar programs. Both IM and IO classes work on individual programs. The main differences between them are class sizes and the nature of the disabilities of the students within them. An example of appropriate use of this flexibility was the case of Clive.
Clive changed schools and classes frequently until he found an appropriate placement in the IM class at Payton High School where his literacy skills flourished. Before his arrival in Year 9, he had attended a combination of IM and mainstream classes which he found most traumatic, mainly due to his lack of self confidence, inadequate interpersonal skills and slow rate of work. He was reluctant in mainstream classes to seek the help he required with many tasks and his parents and counsellor felt that he needed the secure and protected environment of a small class.

On their request, Clive came to the IO class at Payton High School, although he was categorised as IM. He then moved gradually to the IM class with part time attendance in the IO class. This suited his learning style as he came to my IO class for four periods per week to work on literacy learning, where the tasks and time allowed were designed to meet his individual needs. Although Clive was academically capable of mainstream placement, he could not work at the pace required and performed much better in IM and IO classes, both singularly and in combination.

In his first semester of IM and IO placement, Clive's reading and writing improved and he became more confident in presenting his own work and in reading and writing for pleasure. His forte was creative writing where he wrote in great detail using lengthy and complex sentences. He was encouraged and supported in his efforts with constant praise and unlimited time to complete his pieces. This was an easier way for Clive to start a new school, where he began in a very protected social environment with only seven other students in the class. As his confidence grew, he was able to proceed to a more educationally appropriate place in the IM class with some eventual mainstream placement.

When students are referred for assessment to determine their eligibility for IM or IO placement, they undergo an IQ test which allows for entry if the scores fall into the categories for mild or moderate intellectual disability respectively. Parents, teachers and counsellors then use a variety of data sources to determine individually appropriate placement for the student, based on their knowledge of the child and the classes which are being considered.
In examining the early written data on the students in the study and in the interviews with parents and teachers, the issue of appropriate class placement was frequently raised as an important aspect of learning. Many of the students were unable to function in mainstream classes for a number of reasons, one of the most common being that they did not have the literacy capabilities required to participate in the lessons presented.

However, there were several benefits to learning in general, and literacy learning in particular, of special class placement. These stemmed from academically appropriate programs, suitable social groupings and the emotional support provided by individual attention from appropriately trained professional teachers. Examples of such placement included Ros and Shane.

Ros was placed in an IM class in Year 2 after beginning in mainstream, where significant improvement in basic skills was reported after a short time. Through all her years in special classes up to the time of data collection, Ros required individual assistance. She frequently asked for help with her literacy work, which was afforded her in the small class situation. She attended mainstream lessons for Art, Maths, English and Science for short periods of time, but did not remain in these for long as she preferred the assistance and lack of time restraints available in the IM class.

Shane began school in a mainstream Kindergarten class but was very unsettled and frequently ran away from school. He was placed in an IM class at the beginning of Year 1, where he responded well to small group instruction. He displayed behavioural difficulties, requiring constant supervision, time and attention from the teacher. However there had been significant improvement in this area by mid Year 2 as a result of his special class placement.

Most primary schools the students attended offered flexible entry and some integration into mainstream classes, as well as the occasional individual education program within a mainstream class. At Payton High School students were able to attend mainstream classes in particular subjects for flexible periods of time, depending on the success of the placement. Movement between IM and IO classes was also possible for students whose abilities and skills cut across both classes.
These changes between learning environments were generally quite flexible, often negotiated by teachers with some degree of parent involvement. In this study, students such as Eric and Clive attended the IM class for some subjects and the IO class for others. Classroom teachers made their decisions about such placements based on their knowledge of the students and their educational needs. Parents were informed of these recommendations and given the opportunity to participate in the decision-making process if they wished. The benefits of this flexibility in class placement were that the individual needs of the students at any given time could be addressed across different learning environments.

**Summary**

The classroom environments within the special classes were quite different from what was available in mainstream classes. In IM classes, the maximum number of students in the class was 18, and eight in IO classes. A teacher's aide was employed for assistance with both classes and spent considerable time implementing the programs designed by the teachers with individual students. This small class size and the presence of two trained staff allowed for greater individual attention for each child.

The evidence presented in this section shows that appropriate and flexible class placement based on the changing needs of students can be beneficial for their school learning. It supports the need for extensive knowledge of the students and their educational requirements, so that sound placement decisions can be made. Although not all students made demonstrable gains in literacy outcomes, their overall development as children and adolescents was enhanced within the limits of their disabilities.
7.3 Supporting literacy learning in the classroom

School influences play a significant part in the literacy learning of mildly and moderately intellectually disabled adolescents and work in conjunction with the home and family, social and emotional influences and the cognitive development of the students in building the whole picture of how they learn literacy. These influences included monitoring and programming for individual progress, behaviour management and the impact of the teacher's aide.

A major school-related issue which emerged from the literacy profiles was monitoring and programming for individual progress. The importance of meeting personal and educational needs on an individual basis was emphasised by the range of individual differences apparent among the students. In order to develop and maintain appropriate individual programs able to change as needs changed, accurate, continuous monitoring of students' handling of classroom routines was necessary. A comprehensive understanding of each student's strengths and limitations led to the development of appropriate individual educational programs.

While all of the students in this study showed that their personal, social and educational requirements were individual and changeable, some common basic features of their individual education programs emerged from the literacy profiles. These were a) the need to understand the manifestations of the disability; b) the need to recognise strengths and capitalise on them; c) the need to recognise and address gaps in literacy learning that were not provided for at home; and d) the need to increase literacy independence through specific tasks.

In order to devise appropriate literacy programs for each student, it was necessary for the teacher to understand the disability, to recognise strengths and put in place strategies for bridging the gap between home and school, thus increasing literacy independence.
A sound understanding of the ways in which the students’ disabilities affected their learning assisted in outlining those literacy areas which would benefit most from intervention. Examples of the importance of this understanding were demonstrated in the literacy profiles of George, Mitchell, Clive and Micky.

Knowledge and acceptance of the effects of cerebral palsy in George's case and Fragile X Syndrome in Mitchell's case led to programs designed specifically to meet their individual needs; George in recognising his verbal strengths and compensating for his physical limitations; Mitchell in understanding his erratic emotional states and creating a classroom environment where he could work without threat.

George was rarely asked to write independently, but his verbal contributions were valued. Mitchell's program changed daily depending on his moods. If he was particularly receptive, he would be given a challenging activity, but if he was in a fragile emotional state, the activity would be quiet, passive and not demanding of him. However, regardless of the activities given, there was very little evidence of any academic improvement in his skills owing to the infrequency of his willingness to participate in class activities and his innate abilities.

Clive's disability was essentially emotional in nature, an important factor in ensuring that his relatively high literacy skills were maintained through his individual education program in a special class setting. This was done through the provision of literacy learning experiences which met his learning needs. His program included developing the literacy skills he already had, such as writing, vocabulary and comprehension, while catering for his emotional needs through a protected setting, individual attention, unlimited time to complete tasks and acceptance of all attempts. This resulted in more complex understanding of language and its uses.

Micky's head injury affected his brain function in a number of ways including behaviour, speech and memory, knowledge of which provided teachers with a background on which to build programs to suit his needs. His program included practice in using speech to articulate thoughts, basic phonic, sentence structure and spelling, with slow, slight improvement over the period of data collection.
The identification of individual strengths was an important factor in literacy learning in the school context. Each student, regardless of the level of the disability, demonstrated some personal strengths, an important influence on the development of appropriate individual education programs. Examples of the ways in which knowledge of these strengths affected what happened in class were clear in the literacy profiles of Brian, George, Micky, Simon, Warren and Max.

Brian brought to school a high level of practical knowledge as shown by his ability to shop and travel in his local area. He was socially and verbally capable and showed a particular flair for art and practical activities. These strengths were used as vehicles for literacy learning, encouraging him to use his language skills in the contexts of practical activities such as excursions and attending mainstream classes.

George, Micky, Simon and Warren possessed verbal language skills which were much more developed than they were able to show through writing. To build on these strengths, these students were given many opportunities to express their ideas verbally in class, which was possible because of the small class size and the presence of two adults. They were also given the assistance of a scribe who helped in transferring their verbal contributions to the written form. This assisted in helping the students make the mental connection between words heard and words seen on paper and their writing skills increased to varying degrees.

Although George's cerebral palsy greatly limited the processes of reading and writing, he showed extensive language knowledge. This was a strength which could be used as a base on which to build literacy activities. The learning experiences designed for George included activities where he could use his verbal skills rather than his written skills. Examples of such activities were presenting information to the class or teachers in a speech, selecting pictures to illustrate what was wanted and talking about them, using a scribe for any written product and researching through talking to people. This allowed George to demonstrate his abilities without the restriction his physical disability imposed. Micky, Simon and Warren also showed evidence of sound verbal structures, but had difficulty transferring these to written skills, a strength which was recognised and capitalised on through the use of a scribe.
As Max was very quiet, it was necessary to explore his skills actively to identify his strengths and areas of need. In the IM class, he was not allowed to remain unattended and his work was constantly checked by staff. Under this supervision, Max was able to produce some work of a standard of which he could be proud, which in turn encouraged more attempts at practising his literacy skills. Pete showed appreciation and enjoyment of stories, so this strength was used in class by using favourite stories as a basis for simple reading and writing activities, thus improving his knowledge of phonics and the structure of print, however minimally.

It became evident throughout the literacy profiles that the influences of the literacy environment at home and the support that the students received in their literacy learning were important factors. In cases where conditions at home were not ideal for enhancing literacy learning, it became the role of the school to compensate for this by providing programs which featured experiences to make up for these deficits.

Brian, for example, lacked an environment which was rich with print and his family did not expect him to progress very far in literacy. At school, he had a higher level of interaction with books and print of several types and the staff made sure that he knew they had confidence in his abilities to achieve in literacy endeavours, thus increasing his participation in classroom activities. Kate needed support at school to help her cope with her emotional insecurities, especially after the divorce of her parents, in order to allow her to concentrate fully on classroom tasks. This was achieved by having a small, stable environment at school and through the availability of staff to act in the role of counsellor as well as teacher.

Both Kevin and Pete had home environments where no print was available and reading and writing activities were not valued. They both showed in class a particular enjoyment of stories and were provided with opportunities to enjoy and appreciate print which was not available at home. Many of the literacy activities presented to these students were based on appropriate literature, thus reinforcing their enjoyment of print and encouraging participation in activities they particularly enjoyed. However, there was very little progress evident in the areas of independent reading and writing.
Ros benefited from specific literacy tasks provided at school as her mother felt she was unable to help in this area. These ranged from basic comprehension skills to the use of a variety of genres in her writing and included learning to understand the many purposes of the print she used. For Warren and Martin, school experiences were less effective. Warren's absences restricted the continuity of learning he could maintain and Martin's home difficulties were so severe that the school was unable to engage him in successful literacy activities very often at all. In these cases, the programs were designed to teach basic living skills which required literacy, such as reading and understanding common signs, using instructions, reading directions, bus and train timetables and the like. These activities were short and self-contained, so that unexpected absences did not interfere with their continuity, but their effects on the literacy learning of these students were minimal.

The goal of specific tasks provided to meet the needs of individual students were to increase independence in literacy. This was achieved by using knowledge of individual students and their patterns of literacy learning. As each student brought different strengths and limitations to the learning situation, they required a range of activities on which to build their literacy capabilities. Particular provisions were put in place in order to develop the literacy independence of each student.

Brian undertook specific work which was aimed at developing his skills in concentration and memory. He also learned to write his name, address and other personal details by rote. Clive's program included tasks at a mainstream level with ample time and encouragement for him to complete them as well as instruction and practice in using accurate tense and grammar, resulting in these skills, as well as his speed, increasing over time.

Eric was given specific training in reading comprehension and was challenged with texts requiring more than literal comprehension. He was given time to talk, thus improving his skills in verbal communication. George benefited from training in the practical use of literacy such as shopping, travel, using banks and post offices and the like. Jackie's special program involved working on increasing her level of acceptable social practices, improving her level of personal independence and specific lessons in accurate grammar, punctuation and handwriting, with some improvement as a result.
Jane found the setting of secondary school particularly beneficial to her literacy learning. She fitted in well socially and enjoyed the work she was doing in the IM class. She needed encouragement in her use of print as she was not confident in her own abilities and thrived on the reassurance she received. Her specific literacy needs focussed on comprehension and fluency in reading, and grammar and spelling in writing, as these were the main blocks to her further development. To address these needs, her program included activities designed to challenge her level of comprehension and practise the skills required for reading and writing. Over the period of data collection, her reading skills improved and her writing encompassed a greater range of purposes.

Kate also lacked confidence in her own abilities and her program was designed to develop personal assertiveness, as well as increasing skills in using accurate basic grammar and patterns of sentence structure. In the special class setting, her confidence increased and she was able to extend her reading and writing skills to the point where she was undertaking literacy activities suited to a mainstream class.

Simon, Mark and Max were all reluctant readers and writers and needed encouragement and time in class to process print and complete tasks. This was provided in the special class, but results were minimal. Martin's needs were many, with his poor home environment and low level of skills. The school was unable to assist in his literacy learning as other issues such as primary care and family problems took a higher priority and he was rarely at school or in any state to receive literacy instruction.

Micky's disability was such that he required help mostly in oral reading, comprehension and the basic skills of phonics and sentence structure in writing. His program focussed on gradually challenging his skills to work towards independence, which he gained well in reading. It was not as successful in improving writing which he continued to find difficult to undertake on his own.
Similarly, Ros benefited from training in basic reading and writing, increasing her independence through practice of skills. She also built confidence and improved her memory skills through specific activities. As with many students, she needed to develop her independence in working on given tasks and was encouraged to self-correct her own work.

Shane’s level of literacy was high enough for him to attend a mainstream English class, but he did not have the social skills and emotional control to make this a viable option. In the IM class, he was provided with an individual education program which catered for his literacy capabilities while allowing him to remain in a special class. Warren’s absences were a particular disruption to his learning. The main role of the teacher in Warren’s class was to maintain some continuity in his literacy learning despite his absences. This was only possible through an individual education program which could be followed erratically to suit his attendance. This problem was investigated by the school, but did not result in more consistent attendance, nor was there any evidence of improvement in literacy learning.

The role of the teacher’s aide in developing students’ literacy learning was important in this study for a number of reasons. Firstly, she provided another adult supervisor for the students to look to for assistance. She not only helped in maintaining their focus on the task at hand, but was able to provide individual tuition in the processes of reading and writing. She often sat with individual students and read to or with them, explained instructions and acted as a scribe.

This was essential for Pete’s, Brian’s and George’s development because it allowed them to use literacy knowledge which was blocked by an inability to express themselves in writing. Pete’s problem in handwriting was addressed by having his written ideas to trace, thus producing an original and legible product, something Pete was incapable of independently.
Brian showed limited knowledge of sentence structure but with the use of the teacher's aide to write for him he was able to express his ideas and also increase his knowledge in the areas of language he required. Similarly, George benefited greatly from the use of the teacher's aide as his verbal ability was considerably higher than his physical disability would allow him to demonstrate, so a scribe removed this barrier and allowed his mental strengths to be shown.

Secondly, the teacher's aide was a social and emotional support for students who required it, allowing them to feel more capable of succeeding at the tasks presented to them. She assisted Jackie by providing individual emotional support and one-on-one attention in developing appropriate social behaviours and working through her individual education program. This was particularly important for Jackie as she was very reliant on adult attention and assistance. Max needed particular help in focussing on the task at hand and benefited from the reassurance and confidence building provided by the teacher's aide.

Lastly, she provided valuable assistance in conducting this study through collecting printed data from school records, reading questions to students completing questionnaires and keeping a journal which recounted individual student progress. She provided a competent role model in the class and acted as a confidante and friend for the students. She acted as a liaison between myself and the students and provided valuable personal and educational information I could use for assessment and development of individual education programs. In class, the teacher's aide assisted in maintaining the focus of the students on the current learning activity and provided a stable influence for those requiring individual attention, instruction, encouragement and emotional support.
Summary

The evidence provided by the literacy profiles and presented in this section emphasise the benefits to the literacy learning of the students for teachers to have a comprehensive understanding of the unique nature of the ways in which they learn. This knowledge can be used to recognise and capitalise on particular strengths, identify and address gaps in literacy learning between home and school and make the best use of the presence of the teacher’s aide in the classroom. Through these avenues, teachers can best address the individual needs of students and thus increase their independence.

7.4 Behavioural management and literacy learning

One common theme in the literacy profiles was the impact of inappropriate behaviour on literacy learning. A number of behaviour management strategies were used for the students in this study with a range of responses. They included counselling, allowing time for students to gain emotional control, drug therapy and immediate intervention in poor classroom behaviour which involved rewards, punishment, suspension and parent involvement. However, most of the benefits which were seen in the students' learning were the result of appropriate individual academic and social programs supported by the individual attention afforded them in a special class and the flexibility of these programs which were frequently adapted to meet the changing needs of the students.

Of the 19 students in the study, 10 displayed behaviour which inhibited the progress of their learning over an extended period of time. These behaviours were diverse and ranged from aggressive and confrontational behaviours which disrupted the whole class to frequent absences and personal withdrawal from class activities. Because of the major effects on learning of these behaviours, the ways in which they were managed in the classroom had a significant bearing on the students' literacy learning.
The students who did display behaviours which were detrimental to classroom literacy learning fell into three categories according to the reasons for those problems. There were those students who misbehaved as a direct result of their disabilities; those for whom misbehaviour was a result of emotional disturbance; and those who were frustrated by their own academic inabilities. In this section, the focus is on the ways these behaviours were managed and how this affected literacy learning.

Kevin's disability and his home environment led to frequent absences and poor playground behaviour. However, he was mostly co-operative in the classroom provided that the activities set for him were simple and enjoyable, demonstrating the benefits of careful individual programming with the support of placement in a small class.

Micky's early learning was severely disrupted by violent and unco-operative behaviour, but this was managed most successfully by the use of the drug Dexamphetamine. Mitchell's poor behaviour was one of the main manifestations of his Fragile X Syndrome. The management of his behaviour was on a daily basis and included providing him with appropriate activities that he enjoyed and literacy tasks in which he could succeed.

Five of the students (George, Karen, Shane, Martin and Jackie) experienced behavioural difficulties as a result of emotional disturbances initiated outside the classroom. George became easily emotionally disturbed, a state of mind which affected his participation in literacy activities in the classroom. These difficulties were addressed during the period of data collection by allowing George time to complete tasks which were designed to bring him success, allowing him time to "cool off" when angry and by the individual attention of myself and the teacher's aide in class and on excursions. He was frequently counselled at school both in the classroom and through the school counsellor where his family was often involved. The settling effect these interventions had on George allowed him to participate more fully in classroom literacy activities by increasing his concentration on the task at hand.
Karen, although relatively more capable in literacy than most of her disabled peers, was restricted by her emotional and attitudinal difficulties which resulted in an unwillingness to attend school, a lack of participation in written activities when she did attend and disruption of other students by her classroom behaviour. Karen's behavioural difficulties were managed as they arose with verbal reprimands, positive reinforcement for co-operative behaviour and removal from the classroom where necessary. Karen also undertook occasional suspensions from school requiring a parental interview.

Shane, Karen's younger brother, also brought some emotional disturbances to school stemming from his home environment. The interventions tried for Shane included behaviour management programs where behaviour was monitored on a daily basis with rewards and punishment for his actions. These met with some success, as Shane was often in class and actively involved in literacy activities which were designed to meet his needs.

Martin's severe personal and behavioural difficulties were particularly influential on his literacy learning. Because of the severity of Martin's problems outside the school, there were few interventions in place at school which were effective. Jackie experienced major social behaviour problems and benefited from the direct teaching and practice of appropriate behaviours and exercises in self control. This was part of her individual education program which was designed to develop her understanding of the differences between appropriate and inappropriate social behaviours. Although the gains Jackie made were small, they did allow her personal interactions to be less intrusive to her literacy learning in the classroom.

Max and Simon were two students whose misbehaviour appeared to stem from frustration related to their perception of their own academic weaknesses. Max was reluctant to read and write in class and did not feel confident in showing his work for fear of it being below what he considered an acceptable standard. To address this, Max's placement in a small class was most beneficial in that his work could not be hidden or left incomplete and he received the positive reinforcement and individual attention to his skills that he required.
Simon's behaviour was frequently disruptive in class as he refused work and disrupted others. However, he responded extremely well in literacy activities in which he could experience success. In situations where he was able to have the teacher's aide for individual assistance with reading and writing tasks, he behaved well and was proud of his achievements.

**Summary**

The effects of poor behaviour on literacy learning were clearly outlined in the literacy profiles. The ways in which these behaviours were managed influenced the students' literacy learning. The strategies which worked best included a range of actions, mostly carried out through individual programming and personal management of difficult situations. Successful management of poor behaviour generally resulted in increased participation in individually designed literacy programs, thus allowing the students access to learning experiences which could meet their immediate literacy needs within the limits set by the array of other factors influencing their lives at home and at school.

**7.5 Conclusion**

The school issues which were of most importance to the literacy learning of the students in this study were school intervention, class placement, supporting literacy in the classroom and behaviour management. The literacy profiles, which emphasised the range of individual differences between the students, clearly demonstrated the need for and benefits of individual assessment of literacy needs and consequent development of appropriate and flexible individual education programs. Early intervention allowed this process to begin at the outset in the child's formal schooling and special class placement provided, in most cases, a context in which it could happen.
The early intervention which had most benefit was speech therapy. It proved advantageous in consolidating the skills and knowledge of verbal interaction which formed the basis for later language learning. Seven of the students in this study demonstrated delayed skills in verbal development before entry to school, which signalled to parents and teachers the possibility of intellectual disability. Interventions in pre-school through assessments and speech therapy led to improvements in verbal competence for five of these children and provided parents, teachers and other agents with some evidence of abilities with which decisions could be made regarding future class placements. Another two children also showed improvements after intervention at a later date.

The flexibility of the school system met the unique literacy needs of each student as they changed over time by allowing flexible placements in IM, in IO and in mainstream classes. These placements allowed for students' reading and writing skills to be addressed individually. Those who were capable could attend mainstream classes and participate in a full program, while those less capable were given reading and writing activities in the special classes commensurate with their abilities at the time.

School and class placements worked best in the development of literacy for these students when it was based on the premise that they had very different and individual needs. Recommended changes of school, class placement, individual programs and the flexibility to move between IO, IM and mainstream classes allowed each student the opportunity to find the best possible learning environment. Particular aspects of special class placement also catered for individual needs. These included small class sizes, the presence of a teacher's aide, the ability to utilise excursions on a regular basis, lack of time restraints and the flexibility for teachers to concentrate on specific areas of learning needs, be they academic, practical, social or personal.
The issue of monitoring and programming for individual progress is the key to successful learning in special classes and the main educational reason for their existence. The evidence presented in the literacy profiles emphasised that each student has idiosyncratic needs as a result of a number of interacting factors, including innate abilities, the nature of the disability, the home environment, personal characteristics and learning styles. Understanding the effects of the disability, recognising individual strengths, addressing gaps in home literacy and programming for increasing literacy independence have been shown through the literacy profiles to be key features in improving the literacy learning of disabled students and are particularly important in successfully teaching these students.

Without appropriate behaviour management strategies, appropriate school and class placements would have less impact as many of the students' learning difficulties were exacerbated by behaviour problems. Strategies employed varied from child to child and situation to situation and included counselling, individual programs, rewards, punishment and parent involvement. The teacher's aide helped considerably, being an integral part of the literacy learning of the students by providing academic, emotional and social support for them. Her personal support was influential in guiding them along the path of their literacy learning.

The evidence shows that these influences were not operating equally in each student's case. Nor was any one more significant for students' learning across cases than any other. It is in these respects that the school has a particularly important role to play in meeting each student's unique circumstances with placements, planning and teaching strategies that give them the best chance to achieve literacy skills for life.
CHAPTER 8  CONCLUSIONS AND RECOMMENDATIONS

Introduction

It was clear in the literature review that the fields of intellectual disability and literacy learning are widely addressed as separate entities. Most of the literature available on literacy learning and education deals with literacy in the context of mainstream schools and classes, with some references to students with special needs. The literature available in the area of Special Education has a substantial component which deals with literacy learning, but is generally focussed on classroom practice. This study goes beyond classroom practice and investigates a comprehensive array of influences on literacy learning for students with intellectual disabilities, including the unique nature of the learner, home and family factors and school issues. These influences are interconnected and work together in the life of the whole child.

It has examined the literacy learning of students across a range of contexts including the classroom, the playground, excursions, the home environment and the community environment. It also spanned a time-frame from babyhood to adolescence as data collected related to events in the children's learning experiences across time. The results referring to influences on literacy learning are therefore comprehensive descriptions of the students holistically. This chapter links these themes, which emerged from the data, in order to identify and discuss their implications for the ongoing literacy learning of adolescent students with mild and moderate intellectual disabilities. This process is outlined in the following diagram.
Figure 8.1: Implications of the study

8.1 Links between the unique nature of the learner, home and family factors and home and school issues

The unique nature of each student in the study, given their disabilities, was most important in providing for their individual educational needs. Recognition of their individuality and appropriate management of difficulties through individual education programs are paramount in successful teaching of literacy to these students.
The extent of relevant data found outside the classroom demonstrates the
necessity for educators to step beyond the classroom walls in order to gain an entire
picture of the learning environments of these children and thus improve their
knowledge of the child in all his/her learning contexts. The whole child includes
cognitive, social, emotional and physical states, which vary across time and settings
and must be constantly reviewed and addressed to create an optimum environment for
learning. How it is best addressed is very much an individual matter.

The literacy profiles in this thesis have shown that the school and class
environment, including class placement, played a major role in constructing an
appropriate setting for optimum school learning. In conjunction with individual
education programs, the school environment affects students’ emotional stability, their
levels of confidence and their personal attitudes brought to school, thus increasing the
chances of successful learning. Kauffman (1985) supports this view as he stated in
Ashman and Elkins (1998) that the school can contribute significantly to the ways that
students behave.

This study shows that knowledge of students’ backgrounds is vital in making
appropriate decisions on class placement and the development of individual programs.
As stated by Notari-Syverson (1996, p 4), "little is known about the development and
teaching of early literacy skills to young children with disabilities". Gavidia-Payne
(1995) and Marvin and Miranda (1993, in Notari-Syverson, 1996) also acknowledge
that there is a dearth of information and knowledge about this specific group.

Teachers need to seek out and be provided with information about the range of
conditions stemming from the students’ disabilities and their implications for learning.
These suggestions are supported through research by Leslie and Jett-Simpson (1997)
in their recommendation that assessment of literacy should be measured using several
techniques so that students with different experiences are more likely to demonstrate
their abilities. Knowledge of the students' individual circumstances is particularly
important for teachers designing literacy programs. Cambourne (1988) supports this
view in his statement that background experiences are vital to the reading process and
are unique to each individual.
The literacy profiles in this study also revealed how social and emotional difficulties affect the literacy learning of intellectually disabled students. Knowledge of these difficulties has curriculum implications for the special classroom, while inappropriate behaviour is a particular concern of teachers generally. Mitchell, Shane, Kevin, Martin and Simon all displayed classroom behaviours which interfered with their own work and/or the work of others, thus reducing the time that was spent actively engaged in using literacy. These problems were dealt with initially on a daily basis as they arose, but for persistent difficulties, individual programs were developed to teach the students appropriate behaviours.

Taking into account the unique nature of each student, their backgrounds and family influences and their personal, social and emotional characteristics, teachers can devise individual programs which best suit their educational needs. Goodman (1986) and Knight (1997) agree that the aims and objectives of an effective program need to be based on the needs of individual students as well as being broad and flexible so that they can accommodate a number of individual learning styles.

This thesis demonstrates, through the evidence in the literacy profiles, that there are strong links between the unique nature of the learner, the impact of home and family factors and the influence of the school on the success of literacy learning of students with mild and moderate intellectual disabilities. The recognition of these links leads to the implications of the study which span all settings where learning takes place and are relevant to all stakeholders in the literacy learning process.
8.2 Implications of the study

8.2.1 The holistic nature of the learner

Roller (1996) believes that the acceptance of individual differences is critical to the literacy learning of struggling readers. By investigating the literacy learning of the students in the study through literacy profiles, I have identified the importance of knowing about the individual student, his/her background and the strengths and limitations he/she brings to the learning situation. I used this knowledge to work with the students and their families, teachers and other professionals. My aim was to implement the most appropriate and successful individual classroom programs for these students based on extensive knowledge of the whole child.

All people involved in the literacy learning of an intellectually disabled student should have a clear understanding of the nature of the disability and the extent to which it affects intellectual, physical and emotional functioning, especially in the areas required for the processing of language. Teachers, in particular, should find out about the history of disability in the family, the nature of each child's disability and how it affects literacy learning, any family circumstance which might affect learning and the individual strengths and weaknesses brought to the learning situation.

Background information obtained from parents and educators needs to be shared. This may be facilitated by employing case management techniques as used by many social welfare organisations. In this system, information on each child including their learning strengths and weaknesses, family background and current situation and any other individually relevant material should be collated cumulatively by the child's teachers, therapists and professional agencies, filed in the educational setting at the time and made available to those involved in the child's education. In this way, each individual case can be managed from a comprehensive profile about the child and informed educational decisions taken.
The value of this kind of holistic research can be found in the recognition that there are several influences on learning, and specifically literacy learning, of intellectually disabled adolescents. This study has emphasised the focus on the individual and the tools for making well-informed, sound educational decisions based on individual needs. It recommends that all those involved in the literacy learning of mildly and moderately intellectually disabled adolescents compile comprehensive records such as literacy profiles of such students to form a complete picture of them as persons and learners and to use this knowledge to meet their educational needs.

8.2.2 Early identification of disabilities and subsequent intervention

In this study, early intervention emerged as an important strategy in managing the individual education programs and often triggered the first formal attempts to address the students' learning difficulties. This study has found that early intervention resulted in assessment of the students' intellectual functioning and the implementation of programs designed to improve speech development, vocabulary and language recognition. The consequences of these interventions were increases in literacy competence and/or investigation of the possibilities of further interventions including continued speech therapy, medical attention and individual education programs.

Early detection of disabilities is essential so that intervention can be put in place as soon as possible. This is so that the differences in knowledge and skills between the disabled child and his/her non-disabled peers can be lessened, to some degree, and so that the former can be given opportunities to reach their innate learning potential. Although all of the students in this study had been identified by the end of Year 2 as having a disability affecting their ability to learn, those for whom extra educational support was provided early demonstrated improvements as a result.
A major implication of early identification of a disability is that the student might be placed in a special class, either on school entry or soon after. In this study, five of the students began school in special classes from the beginning of Kindergarten and all the rest had been placed in them by the end of primary school. Specific benefits were evident for some students, although results varied among them. This study recommends that wider community awareness of disabilities and their identification be encouraged and that early childhood educators, in particular, be specifically trained to recognise developmental anomalies requiring further investigation and to act appropriately.

This study encourages the early identification of disabilities through a greater community awareness of the normal milestones of child growth and development, increased training of early childhood professionals, the provision of support and advice for parents through home visits and maintenance of close contacts between parents, pre-school teachers, early school teachers and other professionals.

### 8.2.3 Tailoring class placement

Parents, teachers and counsellors need to ensure that the choice of school is appropriate to the child's disability and learning needs. They should become familiar with the school's size, ethos, playground atmosphere, the possibility of movement between classes and the student/teacher ratio in the special classes, so that students can be matched to a school environment that suits their needs. In this study, appropriateness of the school and class environment was unique to each student and, although an ideal placement was not always possible, the particular examples of Clive, Pete and Kevin illustrate the effects that school and class placements can have on students.

Clive had tried a number of placements for middle secondary school, none of which catered to his academic and social strengths and weaknesses. When he came to Payton High School in Year 9, he found that IO placement worked for him because he could operate on a relatively high academic level through his individual program, especially in literacy related tasks, while maintaining the social security of a small class.
Pete thoroughly enjoyed high school, finding that he was comfortable in the IO class and that the literacy tasks required of him were individually suited to his needs. Although Kevin did not progress far in literacy, his placement in the IO class allowed him to improve his skills in simple word recognition, writing of his name and, also importantly, introduced him to the enjoyment of books and stories.

A combination of special and mainstream placement gives a wide scope of opportunities across all subject areas for students to access. This allows students capable of handling both settings to access subjects in their areas of interest and those designed to provide challenging literacy opportunities. Teachers in both primary and secondary schools, after careful assessment of students' abilities, personal attributes, behaviours and attitudes, should ensure that this flexibility is available to their students and use it to gain the best possible learning environments for them.

It is also important that these placements be continually reviewed within the school context and adjusted accordingly in view of the changing needs of the students. Although school and class placements are not always fruitful, they need to be selected and changed based on comprehensive information about what is likely to work best for the child.

The structure and organisation of literacy learning in Special Education in secondary schools is a particular focus of this study where a contribution to current knowledge and practice has been made. Optimum use of the school system is important in finding the most appropriate learning situations for these students, thus increasing the chances of positive literacy progress. Especially, this study has supported the need for a flexible system in secondary schools where students can move between special classes and mainstream classes. Such flexibility is of particular value to mildly and moderately intellectually disabled children's literacy learning, and one which should be adopted more widely.
The flexibility of class placement, in particular combining Special Education and mainstream classes, which can occur in both primary and secondary schools, is a field where further research could enhance and increase the opportunities available to students at different levels and in different subjects. These combinations could include secondary and primary schools, special classes and schools, pre-schools and post-school training establishments.

### 8.2.4 Optimum learning environment

The need for positive school and class environments is well-supported in the literature. The National Health and Medical Research Council (1990) stated that inadequate environmental experiences were considered to contribute to problems in developmental and academic skills. They also indicated that, in most cases, learning difficulties are the result of complex inter-reactions amongst a number of factors.

Kirk and Gallagher (1989) and McLaughlin and Wehman (1996) also reached the conclusion that a lack of appropriate environmental stimulation may contribute to intellectual disability and delays in learning. Clay (1986) identified that deficiencies in literacy experiences may result in limited language skills and difficulty in reading. Finally, Allen et al (1991) made the recommendation, as does this study, that students should be encouraged to take risks in a supported environment.

To enhance the literacy environment, the classroom should be rich with print of all kinds. This study demonstrated the benefits this for Pete, Brian, Mitchell, Karen, Jane and Mark. Pete gained exposure to print and its enjoyment that was not available to him at home. Brian and Mitchell were both observed actively consulting charts around the classroom for information to assist them in completing literacy tasks. Karen and Jane both enjoyed copying and reading poetry and Mark followed a story I was reading with a second copy of the book. The outcomes of these activities were that the students had more experience on a daily basis with print than they would otherwise have had and this contributed to the development of their independence in literacy.
Teachers need to collect print, allow the students to contribute, ensure its continuing relevance to them and what they are learning, make use of it and change it regularly. This print can include (a) environmental print, such as commonly seen signs, labels, advertisements, warnings; (b) instructional print, such as maps, recipes, cooking instructions, opening/closing instructions on packaging, operating instructions on machines and appliances; (c) informational print, such as newspapers, journals, non-fiction books; and (d) recreational print, such as fiction books, stories, magazines, comics, leaflets.

Literacy activities can be designed to address specific areas of need such as recognition of the importance and relevance of print in everyday life, practical application of basic reading and writing skills, phonics, sight word recognition, reading comprehension, writing for a range of purposes and knowledge of text types and their applications. Such programs should also include behaviour management strategies used to optimise academic activities by encouraging students to use their time asproductively as possible.

A common theme which arose from the data was that of the slow speed with which the students were able to work, especially in the skills of reading and writing. In all cases, but especially so in Clive's case, allowing sufficient time for them to complete given tasks was significant. This lack of time restraints in the special class was shown to be important in the literacy learning of the students in this study. An awareness by special class teachers of the slow speed of language processing by their students can be addressed with appropriate activities, instructions and individual attention. The teacher needs to allow enough time, not necessarily in a single block, for a student to complete the task required.
Teachers should actively search for aspects of literacy learning to praise, and publicise the strengths of each student through verbal accolades and displays of students' work. Liaison with families to report individual achievements is one avenue of recognising strengths. A holistic understanding of the children they teach leads teachers to provide the best possible environment for them in the classroom. The presence of the teacher's aide as well as the teacher in the small Special Education class, allowing plenty of opportunities for individual attention, is the best way of ensuring fruitful implementation of such programs.

Teachers can foster a positive literacy environment at home, supplemented from outside the family through (a) information for families, (b) the involvement of parents and families in school activities, (c) provision of written material for home use, and (d) maintenance of close relationships between home and school.

This study has shown, through specific case examples, that the learning environment in the classroom is a significantly contributing factor in the literacy learning for students with mild and moderate intellectual disabilities. The literature recognises this view and emphasises its particular relevance to disabled students whose mental capabilities and home circumstances may increase the need for a supportive and positive learning environment at school.

8.2.5 Professional development

Educators require training in using appropriate methods, both quantitative and qualitative, for assessing the strengths and weaknesses in the literacy learning of their students. Ongoing professional development in the recognition of disabilities, early intervention and referral procedures is recommended so that disabled students have appropriate intervention at the earliest opportunity. Teachers also require extensive knowledge of how the school system in which they work can best be utilised to provide quality literacy outcomes for the children in their care.
Many intellectually disabled students experience emotional, social and behavioural problems to a greater extent than their non disabled peers. Current knowledge of effective practices in behaviour management and counselling skills are essential for helping children manage their difficulties and providing a classroom environment which enhances the literacy learning of all students.

Teachers require training in the physical management of their classrooms to provide an appropriate literacy environment. In the important area of interpersonal relationships in the classroom, focus is needed on teacher attitudes and strategies for dealing with difficult situations. Further education for teachers in looking beyond the classroom to the wider community where these children live and work will add to their abilities to make the students' literacy learning as real, practical and durable as it can be.

Establishing and maintaining positive relationships with families of disabled children is often challenging for teachers. Courses which equip teachers with skills in this area would assist them in providing students with appropriate teaching and support across a range of contexts. This study recommends that providers of professional development for educators, allied professionals and support personnel include these recommendations in future policies and practices.

This study has demonstrated that the teaching of literacy to intellectually disabled adolescents is very complex and requires professional expertise in a number of areas. These are (a) identifying strengths and weaknesses in language processing, especially in reading and writing; (b) devising programs which extend these strengths and remediate the weaknesses; and (c) monitoring individual progress and the effectiveness of the programs implemented. To fulfil the many roles expected of Special Education teachers, ongoing professional development is required to ensure optimum teaching and learning.
8.2.6 Bridging the gaps between home and school

Bridging the gaps between home and school is an important issue in achieving success in literacy learning for students with mild and moderate intellectual disabilities. The links between the unique nature of the learner, home and family factors and school issues highlights the need for these to be brought together in order to teach the whole child, taking all influences into consideration.

In the cases of Martin, Kevin, Pete, Mark and Ros, there were particular difficulties at home which, once known, could be compensated for to some degree at school. Both Martin and Kevin lacked primary care at school. This was dealt with by ensuring that relevant authorities such as the Department of Community Services were aware of the home situation and acted on it. Also, if these students arrived at school cold or hungry, their parents were contacted and they were clothed and fed through a clothing pool and special lunch program at Payton High School. These students' circumstances led to literacy programs designed to help them cope with daily living, learning how to write personal details and how to use literacy in practical ways such as recognising common signs, shopping and travelling.

One of the roles of the teacher as a member of the case management team is to ensure that all is well in this area at home, through close links with the child in the family setting and to notify appropriate agencies where necessary. In my experience, teachers who work within Special Education settings do get to know the nature of the family quite well and are often the first port of call when difficulties arise, both from the parents and from the students.

In these cases, the teacher is in a position to recommend intervention by medical professionals, counsellors and social workers. Mainstream teachers, too, who teach these students should form part of the case management team, participating in group discussions and ensuring their knowledge of each child is incorporated into his/her profile. Maintaining a link between home and school and identifying the need to work towards bridging gaps between home and school is a feature of this study.
8.2.7 Providing support for parents

The need for support for families stems from the thesis' finding that the family has a major influence on the foundations and development of children's literacy learning. This begins with the home environment and continues with the detection of the disability and the subsequent action taken by the parents. Weinberger (1996, p15) concluded that "children spend most of their time outside school and much of their literacy learning occurs within a family context at home", a view supported by Fishman (1992).

Families need support in learning specifically how they can best assist their children at home in literacy, through homework, programs designed for use at home and generally being involved in the literacy learning process. This thesis has documented the need for such support and discussed ways in which families can take a role in the literacy learning of their intellectually disabled adolescents. It recommends that this can best be done through a case management approach, led by the classroom teacher using co-operation between parents, educators and other professionals where possible, direct contact between the home and the school and assistance with specific literacy programs.

In order to facilitate the early detection of intellectual disabilities, properly planned and funded community programs are useful in alerting parents to some indicators of possible difficulties. Such programs could be undertaken through early childhood centres, community nursing services, media advertising, and schools. Because of the importance of early detection, early childhood educators need to be knowledgeable about the identification of difficulties in young children so that they can alert parents and recommend referrals. Once intellectual disabilities are identified, parents need support in accepting the need for, and provision of, ongoing monitoring and intervention for their children whether they be at home or in the pre-school.
This recommendation is supported by Marvin and Miranda (1993, in Notari-Syverson et al, 1996, p 3) who stated that "fewer literacy experiences were provided at home for children ... with disabilities than for children who were developing normally". This indicated that perhaps families of disabled children found the provision of appropriate experiences more difficult than others.

Teachers can make recommendations on how the needs of the child can be met, in part, by the family. In families with a history of disabilities, such as in the cases of Brian, Martin and Ros, support for literacy learning ought to be provided by educating the parents and children in the importance of achieving success in reading and writing. Parents can be taught how to assist in literacy learning by reading with their children, being aware of print at home and in the environment and by providing printed material, such as books, newspapers, instructions, magazines and the like, where required. Teachers, in particular, can draw attention to the student's individual strengths and co-operate with the family to enhance these by providing appropriate opportunities and materials.

Examples where such assistance was used included Kate's early learning experiences, where programs were sent home from a speech therapist and Ros, whose mother felt she was ill-equipped to help with her daughter's literacy learning and became closely involved with the class. Simon was an example where home support for early programs was not apparent. The programs sent home were not completed and Simon rarely had help with his homework in later years. Reasons for this might include Simon's large family of boys who dominated his mother's time with the provision of primary care. If this was the case, then education in managing a demanding family while supporting literacy learning could have been valuable.

Parents, too, can benefit from participation in learning experiences designed to assist them to help their children cope with their disabilities and lead happy, productive lives. Suggested courses include community training for parents in child and adolescent development, so that difficulties can be recognised early, and providing opportunities for teachers to learn more about how to manage individual cases as described above.
The results of this study led to the conclusion that students' literacy learning would be improved if families were assisted, as required, in (a) early intervention and class placement decisions, (b) providing primary care, (c) fostering positive attitudes to school and learning, (d) learning about the importance and relevance of reading and writing to their children, and (e) providing a rich literacy environment at home. These conclusions are supported by the National Health and Medical Research Council (1990) as they identified family factors such as disruption, inter-reaction problems, inappropriate expectations and psychological deprivation as contributors to learning difficulties.

8.2.8 Positive relationships with parents and professional agencies

Knowledge of each child can be gained from speaking with parents and past teachers and obtaining written reports from school personnel and professional agencies. The small class size afforded teachers of students with special needs makes this possible for teachers as part of a professional approach to quality teaching. They can then use this knowledge to develop individual education programs which match curriculum intentions with the needs of the students in pursuit of quality learning outcomes.

Many programs for early speech intervention, for example, simply are handed to the parents for implementation. In this study, some parents did not follow up on these recommendations because of lack of support from professional agencies through home visits and close contact between teachers, therapists and parents. Co-operation between pre-school teachers, speech therapists, counsellors, families and other involved people is necessary so that each is aware of the interventions taking place in these early years and their roles in achieving success.
These professionals should work closely with schools and teachers so that they can advise parents accurately on what is available for their children. Closer communication between those involved in placement decisions might ensure that those decisions are most appropriate. Van Kraaynord et al (2000) support this recommendation in their suggestion that regular class teachers should combine their professional knowledge and skills, share their knowledge of students with support staff and use a team approach to devise individual programs.

Teachers should work towards building positive relationships with the students and their families, so that their knowledge can remain current and any difficulties can be addressed or compensated for through informed intervention. In many cases parents in this study worked with early childhood educators on intervention programs and special placements. As their children progressed through the school system, the parents continued to have a major impact through the support they were able to provide at home for the learning experiences of the children.

8.3 Conclusion

This thesis has addressed its research questions through comprehensive data analysis leading to the conclusions and recommendations presented in this chapter. It has highlighted the role played by the students' disabilities in their literacy learning. It has followed, in each case, how the nature of the disability affected their early learning, decisions on interventions and classroom performances. From the case studies and literacy profiles, it has emphasised that teachers need to consider the holistic and individual nature of children's development and recommended that they use this knowledge to develop programs which lead to optimum literacy learning for these students.
The importance of the background literacy experiences of students has been a focus of this study. The literacy profiles have demonstrated that they contribute significantly, both positively and negatively, to the students' educational needs and influence the ways that they learn. Thorough knowledge of the strengths and weaknesses students bring to the learning situation will guide teachers to meeting the needs of every student.

This study has identified that there is a number of people who are influential in the literacy learning of students with intellectual disabilities. They are not restricted to educators, but can include family members, medical professionals, counsellors and support service personnel. It has shown that these people are key influences on literacy learning and that their roles should be taken into account in planning educational placements and learning which will be of maximum benefit to the students.

The home environment impacts on literacy learning by influencing what happens as a result of identification of the disability, affecting attitudes to literacy and learning and supporting or hindering the effectiveness of classroom activities and individual programs. Identification of how the home and family influence literacy learning is valuable in determining the areas where assistance and support to families is required in making these influences as positive as possible.

This study has highlighted the school environment's significant impact on literacy learning through appropriate class placements, the nature of the special class, individual education programs and the management of personal, social and emotional difficulties. The effective management of the school and class environments, according to the principles of meeting individual needs based on thorough knowledge, leads to situating the learning experiences in appropriate contexts with appropriate programs so that the students gain the most benefit from their time in formal schooling.
This thesis brings together the fields of literacy and intellectual disabilities which few studies have done. This is important because disabled students need to be able to live productive lives in a literate society and need to be given the best opportunities to use their limited innate abilities to their potential. In particular, the thesis provides valuable insights into the nature of literacy learning in the special educational field of mild and moderate intellectual disabilities.

There has been relatively little classroom-based research in this specific area, in which an emphasis has been placed on how best to meet the needs of special children. The conclusions reached will assist researchers, classroom teachers, teacher-educators and support services in determining future directions for policy, practice and research in this area.

The students in this study, their case studies and literacy profiles have been invaluable in documenting their literacy learning. Over the period of the research, I got to know them well, was able to look into their personal lives, their homes and relationships, their past experiences and their personal strengths and weaknesses. They formed the cornerstone of this study and any future benefits it may provide in educating intellectually disabled students must be credited to them.
CHAPTER 9 REFERENCES

BOOKS


JOURNAL ARTICLES AND PAPERS


INTERVIEWS

Students
Primary school teachers

QUESTIONNAIRES

Reading Questionnaire
Early Learning Questionnaire
Parent Questionnaire
School Life Questionnaire
Self Description Questionnaire
My Schoolwork

SCHOOL AND OTHER WRITTEN RECORDS

School counsellor's reports
Assessments by Guidance officers
Psychologist's reports
Reports by Special Education Consultant
Infants/Primary Pupil Record Cards
Secondary school reports
Progress reports for review
Teacher's progressive notes
Student profiles
Teacher's aide diary
Stewart House report
Department of Community Services report
Report from Child Development Unit, Royal Alexander Hospital for Children
Report by paediatrician
Hearing assessment report by Wollongong Hearing Centre
Speech pathology assessment reports
Notes: The Fragile X Syndrome. The Fragile X programme. Prince of Wales
Children's Hospital
Report on assessment from the Irlen Dyslexia Centre

**STUDENT ASSESSMENTS**

Miscue analysis
WISC-R results

**OBSERVATIONAL DATA**

Students' work samples
Audiotapes and videotapes of classroom activities

**APPENDIX A  LITERACY PROFILES**

The 19 literacy profiles are presented on CD available at the end of this publication.
Hearing assessment report by Wollongong Hearing Centre
Speech pathology assessment reports
Notes: The Fragile X Syndrome. The Fragile X programme. Prince of Wales
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APPENDIX A  LITERACY PROFILES

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APPENDIX B  QUESTIONNAIRES AND INTERVIEWS

1. Self Description Questionnaire
2. School Life Questionnaire
3. Reading Questionnaire
4. My Schoolwork Questionnaire
5. Parent Questionnaire
6. Student interview
7. Early Learning Interview
8. Past Teachers' Interview
9. Present Teachers' Interview

1. Self Description Questionnaire

This tool is a multidimensional questionnaire designed to measure levels of self concept across a range of areas. These are:

a. physical appearance
b. physical ability
c. general academic performance
d. reading
e. mathematics
f. relationships with parents
g. relationships with friends.

The students are asked to respond to each of 76 questions with a choice from the following:

false, mostly false, sometimes false/sometimes true, mostly true, true.

The questions are presented here:

1. I am good looking
2. I'm good at all school subjects.
3. I can run fast.
4. I get good marks in reading.
5. My parents understand me.
6. I hate mathematics.
7. I have lots of friends.
8. I like the way I look.
9. I enjoy doing work in all school subjects.
10. I like to run and play hard.
11. I like reading.
12. My parents are usually unhappy or disappointed with what I do.
13. Work in mathematics is easy for me.
15. I have a pleasant looking face.
16. I get good marks in all school subjects.
17. I hate sports and games.
18. I'm good at reading.
19. I like my parents.
20. I look forward to mathematics.
21. Most kids have more friends than I do.
22. I am a nice looking person.
23. I hate all school subjects.
24. I enjoy sports and games.
25. I am interested in reading.
26. My parents like me.
27. I get good marks in mathematics.
28. I get along with kids easily.
29. I do lots of important things.
30. I am ugly.
31. I learn things quickly in school subjects.
32. I have good muscles.
33. I am dumb at reading.
34. If I have children of my own, I want to bring them up like my parents raised me.
35. I am interested in mathematics.
36. I am easy to like.
37. Overall, I am no good.
38. Other kids think I am good looking.
39. I am interested in all school subjects.
40. I am good at sports.
41. I enjoy doing work in reading.
42. My parents and I spend a lot of time together.
43. I learn things quickly in mathematics.
44. Other kids want me to be their friend.
45. In general, I like being the way I am.
46. I have a good looking body.
47. I am dumb in all school subjects.
48. I can run a long way without stopping.
49. Work in reading is easy for me.
50. My parents are easy to talk to.
51. I like mathematics.
52. I have more friends than most other kids.
53. Overall, I have a lot to be proud of.
54. I'm better looking than most of my friends.
55. I look forward to all school subjects.
56. I am a good athlete.
57. I look forward to reading.
58. I get along well with my parents.
59. I'm good at mathematics.
60. I am popular with kids of my own age.
61. I can't do anything right.
62. I have nice features, like nose, and eyes, and hair.
63. Work in all school subjects is easy for me.
64. I'm good at throwing a ball.
65. I hate reading.
66. My parents and I have a lot of fun together.
67. I can do things as well as most other people.
68. I enjoy doing work in mathematics.
69. Most other kids like me.
70. Other people think I am a good person.
71. I like all school subjects.
72. A lot of things about me are good.
73. I learn things quickly in reading.
74. I'm as good as most other people.
75. I am dumb at mathematics.
76. When I do something, I do it well.

2. School Life Questionnaire


This questionnaire was used in the study cited above to examine attitudes and achievements in primary schools. I used it in my study for the same purpose and to provide additional information to that collected through other means. The students had to read each question and select one response to each of the following statements:

agree, mostly agree, mostly disagree, disagree.

1. My school is a place where I really like to go each day.
2. My school is a place where my teacher is fair to me.
3. My school is a place where I learn to get along with others.
4. My school is a place where I am a success as a student.
5. My school is a place where I feel unhappy.
6. My school is a place where other students accept me as I am.
7. My school is a place where I know how to cope with the work.
8. My school is a place where I like to be.
9. My school is a place where the work is a good preparation for my future.
10. My school is a place where I like to do extra work.
11. My school is a place where I feel happy.
12. My school is a place where the things I learn are important to me.
13. My school is a place where learning is fun.
14. My school is a place where I feel lonely.
15. My school is a place where things I learn will help me in school.
16. My school is a place where I am good at school work.
17. My school is a place where I feel proud to be a student.
18. My school is a place where I feel worried.
19. My school is a place where my teacher takes an interest in helping me with my work.
20. My school is a place where people trust me.
21. My school is a place where I have a lot of fun.
22. My school is a place where my teacher listens to what I say.
23. My school is a place where I enjoy what I do in class.
24. My school is a place where I am popular with other students.
25. My school is a place where I can learn what I need to know.
26. My school is a place where I know I can keep up with the work.
27. My school is a place where I get excited about the work we do.
28. My school is a place where I get upset.
29. My school is a place where I know people think a lot of me.
30. My school is a place where I get on well with other students in my class.
31. My school is a place where what I learn will be useful.
32. My school is a place where the work we do is interesting.
33. My school is a place where I enjoy being.
34. My school is a place where my teacher helps me to do my best.
35. My school is a place where people can depend on me.
36. My school is a place where other students are very friendly.
37. My school is a place where I feel restless.
38. My school is a place where my teacher treats me fairly in class.
39. My school is a place where what I learn will be useful to me when I leave school.
40. My school is a place where I achieve a satisfactory standard in my work.

3. Reading Questionnaire

I developed this questionnaire to use to examine individual students' attitudes to reading, their likes and dislikes and to gain some idea of the literacy environment at home. It was mostly an open-ended questionnaire with students being allowed to expand on their answers if they wished. Students who experienced difficulty in reading this for themselves had either myself or the teacher's aide read it to them and record their answers.

1. Do you like to read? Why?
2. What kinds of books do you like to read or listen to?
3. What do you do when you're reading and you come to a word you don't know?
4. Do you think reading is important? Why?
5. Do you go to a library outside school?
6. Is reading easy or hard for you? Why?
7. What is your favourite subject in school? What do you like about it?
8. What do you do in your spare time?
9. Are you a good reader?
10. Are you a good writer?
11. Is your family a reading family?
12. Is there time and a place for you to read at home?
13. If you were helping a little child to learn to read, what would you tell them?
14. Who do you know who is a good reader?
15. What makes them good at reading?
16. What kind of reader are you? (Tick the right box)
   - excellent / good / OK / hopeless
4. My Schoolwork Questionnaire

I devised this questionnaire to supplement the reading questionnaire by broadening the questions from specifically reading to look at class activities in general and to gauge the students' feelings on how they could improve.

1. The activities I like in class are ...
2. I think I'm getting better at ...
3. I would like more help in ...
4. At home I mostly get help from ...
5. When I don't understand something in class, I ...
6. Some children I like to work with are ...
7. I think I'm best at ...
8. By the end of the year, I would like to be better at ...
9. I think reading is ...
10. The things I like to read are ...
11. My reading would improve if ...
12. I think writing is ...
13. The things I like to write are ...
14. My writing would improve if ...

5. Parent Questionnaire

I devised this questionnaire in order to gain information on how the parents viewed their own reading skills and the reading progress of their children. This was also open-ended, with extended responses encouraged.

1. Do you consider yourself a good reader?
2. What do you like to read?
3. How often would your child see you reading?
   - every day / frequently / occasionally / never
   Comments:
4. How much encouragement does your child need to read?
   - a lot / some / a little / none
   Comments:
5. Does your child borrow books from the library?
   - all the time / often / occasionally / never
   Comments:
6. What types of books does your child like to read/look at?
   - comics / instructional (how to... , recipes, informational (sports, animals, music, etc.) / novels, stories / picture books
   Comments:
7. How do you think your child is progressing as a reader?
8. Does your child write in his/her leisure time?
   - often / sometimes / never
9. Does your child write in any of these forms?
   - notes and messages / diary / shopping list / stories / letters / factual things
10. Does your child feel happy about experimenting with the spelling of new words?
    - usually / sometimes / not really
11. What are some of the ways in which your child finds a new word he/she needs for a piece of writing?
   asks you / looks in a book / chooses an easier word / asks brother or sister / uses a dictionary / writes the first few letters and checks it later
12. Any other comments you wish to make regarding your child's reading and writing progress?

6. Student interview

I devised these questions to gain information on the students' attitudes to literacy both at home and at school and to triangulate with the Reading Questionnaire above. All of the students were individually interviewed by myself with extended answers encouraged and recorded.

1. This is to find out about what you think about reading and writing at home and at school. The first question I am going to ask you about is books. Do you like books?
2. Do you have a favourite author?
3. What books do you know that are by him/her?
4. What books don't you like?
5. Do you like the books I read to you in class?
6. Do you like the work we do with books in class?
7. What's the best book we've read so far?
8. What makes it be a good book?
9. What's the worst book we've read?
10. Why didn't you like that book?
11. Do you like coming to school every day?
12. What's the best thing about school?
13. What's the worst thing about school?
14. Do you read at home?
15. What do you read?
16. Does anybody else in your house read at home?
17. What do they read?
18. Why do you think the people at your house read?
19. When you were little, did your parents read to you?
20. Would you say that you like reading?
21. Are you good at it?
22. What makes you be a good reader?
23. How did you get to be a good reader? How did you learn?
24. Just imagine you're sitting down, reading... and you come to a word you don't know. What do you do about it if you've never seen that word before?
25. When you read, do you always look at every word or do you skip some?
26. Do you still understand what you are reading if you skip some?
27. What if you could read a word, but you didn't know what it meant?
28. What do you do if you read a sentence in a book and you don't understand it at all. It just doesn't make sense. Do you leave it or do you go back and read it again?
29. Do you like to write?
30. Are you a good writer?
31. Does anybody at home write?
32. Do you write at home?
33. What kinds of things do you like to write?
34. If you could be a famous author of a book, what kind of book would you like to write?
35. Is there anything else that you can tell me about reading and writing that would help me teach you better?

7. Early Learning Interview

I devised the questions for this interview in order to find out about the early years of the children's learning. Where possible, the parent came to school for this interview, but in some cases, they were telephone interviews.

1. What are your first memories of X learning to talk?
2. What were his/her first words?
3. Did you actively teach X to talk? How?
4. Did you read stories to X?
5. Did he/she seem to enjoy them?
6. What kind of stories did you read?
7. At what age did you stop reading to X?
8. Did X attend pre-school? At what age? How frequently?
9. What do you remember most about pre-school?
10. How did his/her language change with pre-school?
11. How did X cope when he/she first started school?
12. What do you remember most about early school years?
13. What was X's first school report like?
14. When did X first join the IM/IO class?
15. How did you feel about this change?
16. Did X change schools frequently?
17. Did this make any difference to his/her progress?
18. What do you see X doing when he/she leaves school?
19. Anything else you would like to tell me about X's early learning?

8. Past Teachers' Interview

I devised these questions in order to gain information on how each child's literacy was viewed in primary school.

1. How long was X in your class?
2. How would you rate X's reading ability when he/she came to you?
3. How would you rate X's writing ability when he/she came to you?
4. What expectations did you have of X for his/her literacy development before entering high school?
5. Did you find that demonstrating how YOU read and wrote helped?
6. What kind of mistakes did X make in reading?
7. What kind of mistakes did X make in writing?
8. How did he/she go about correcting these mistakes?
9. What kind of mistakes did X make in writing?
10. How did he/she go about correcting these mistakes?
11. What other strategies did you find worked best in improving reading?
12. What other strategies did you find worked best in improving writing?
13. Did X learn independently or was he/she needing constant guidance?
14. What responses from you did X find most encouraging?
15. Do you feel the parents were readers and writers?
16. What kind of support for X's learning did you get from the parents?
17. Was reading and writing homework always done?
18. Anything about X's literacy development that you can add?

9. Present Teachers' Interview

Under the organisational system at Payton High School, both the IM and IO classes went to other teachers for specific subject areas such as Physical Education, Home Economics and Industrial Arts. I devised these questions in order to gain information on the literacy learning of the students in a different setting to the Special Education classrooms. In contrast to the other interviews and questionnaires, this asked for information about the group as a whole, rather than individual students.

* Establish subject area and which class(es) is/are taken and how often.

1. Would you be able to describe where you think these students are in their literacy development?
2. What kinds of speaking tasks are they asked to perform? How do they react to these?
3. How do you find their listening skills?
4. Would you comment on the reading that is done in your class?
5. What kinds of writing tasks are the students asked to perform? How do they react to these?
6. Are charts, books, labels and other print easily available in your classroom? If so, do the students use them?
7. Do the students often need to use print in the tasks given them?
8. In what ways do you demonstrate your own literacy skills to the students?
9. Do you feel that the students take much responsibility for their own learning in your subject?
10. What are your expectations of the students in this class?
11. Is there anything else you can tell me which may help in finding the best ways to teach them, especially in literacy?
Appendix C  Glossary

**ADD**: Attention Deficit Disorder. A condition of the brain where concentration is impaired.

**Aging and Disability Department**: Government department providing services and funding to the aged and disabled.

**AUSLIT**: (from 1988) CD-ROM which indexes creative and critical writing by or about Australian creative authors.

**Australian Education Index**: (from 1978) covers curriculum, educational resources, information such as librarianship, management, policy administration, psychology, sociology, teaching and training.

**categories**: groups of coded data that have commonalities.

**central school**: a school in a sparsely populated area which caters for children from Kindergarten to Year 10 or 12 on one site.

**cerebral palsy**: a brain disease which involves lack of muscle control and can cause intellectual disability.

**cloze exercises**: a language exercise where words are deleted from sentences and must be filled in by the student using language knowledge including the use of context clues.

**coding**: allocation of codes to text so that the researcher can retrieve everything coded by one or more codes.

**Department of Community Services**: state legislated Government department whose responsibilities lie in the area of public welfare.

**Department of Disability Services**: see Aging and Disability Department (current title).

**Deputy Principal**: second in charge of a primary, secondary or special school, responsible to the Principal.

**Dexamphetamine**: drug used in the management of ADD.

**Director General of Education**: Government representative appointed under the Minister of Education to oversee public education practices.

**Early Intervention Unit**: a group of specialist early childhood educators and medical practitioners who work co-operatively to provide for the needs of young children with difficulties.
epilepsy: nervous disorder in which a person suffers cranial convulsions; petit mal (mild); grand mal (severe).

ERIC: Education Resources Information Centre. Bibliographic database covering journal and research literature in the broad spectrum of education.

Fragile X Syndrome: genetic, hormonal disease causing various levels of intellectual and social disabilities.

grommets: a ring of rubber which is designed to drain the ear of excess fluid.

IM: mild intellectual disability; WISC-R score range: 60 - 75/80.

IO: moderate intellectual disability; WISC-R range: 30 - 60.

Head Teacher: Head of Department, responsible to Deputy Principal and Leading Teacher, overseeing classroom teachers in a specific curriculum.

Head Teacher Support: Head Teacher in charge of Special Education programs within in the school.

Leading teacher: equivalent status as Deputy Principal, but with responsibilities in the areas of professional development and leadership rather than direct contact with students and the organisation of the school.

mainstream: regular classes, with non-disabled students across a range of subjects.

mild intellectual disability: see IM

moderate intellectual disability: see IO.

OL class: special class for students with specific language disorders.

Preschool Language Scale: formal test for children aged 3 - 5 years which evaluates their verbal language development.

Principal: Head of primary, secondary or special school.

progress summaries: notes made by me on a monthly basis, after reviewing all written work produced by the students and the anecdotal records kept on their progress.

PSYCHINFO: database which covers the professional and academic literature in psychology and related disciplines. Worldwide coverage.

Pupil Record Card: brief, formal record of individual progress kept by infants and primary schools, which usually include results of formal testing and class placement.
regional offices: centres of resources and personnel available for staff from a number of schools in the area.

resource teacher: a teacher employed to address the needs of students with learning difficulties in the mainstream setting.

respite care: residential centre where disabled people can be cared for for short periods of time away from home.

Ritalin: drug used in the management of ADD.

School Certificate: credential given at the end of Year 10 in all NSW schools.

scribe: person used to write for another person through dictation.

Self Description Questionnaire: a questionnaire devised by Professor Herb Marsh (1990) which explores self concept in the areas of physical appearance and ability, general academic performance, reading, maths and relationships with parents and peers.

Senior Education Officer: position held by a teacher within the Department of Education, in administrative and consultative roles.

sight words: words learned in isolation which have distinct meanings of their own out of context; eg, danger.

Special Courses of Study: an educational path available to students with intellectual disabilities who are unable to participate in regular school curricula.

Special Education: the field of education which deals with all disabilities where learning is affected.

Special Education Directorate: administrative body which oversees the operation of Special Education programs within the Department of Education.

Special School: a school for specific purposes which deals with students with special needs.

streamed classes: mainstreamed classes in which the students are grouped according to ability and performance in class.

Student Support Faculty: faculty within a secondary school which comprises all areas of Special Education.

State ward: a child who has been placed in the care of the state, rather than the parents.
**support class:** IM, IO, language or specialist class.

**Support Teacher:** teacher of a support class

**Support Teacher Learning Difficulties:** see resource teacher

**Support Unit:** unit within a mainstream secondary school which caters for all areas of intellectual disabilities.

**TAFE:** Tertiary and Further Education: post-secondary educational college system.

**thick description:** description that goes beyond factual reporting to describe in detail a particular phenomenon.

**travel training program:** a program frequently run in Special Education classes, where students learn the practical skills of travelling independently.

**Wellington Square:** a primary level reading resource which comprises graded readers and associated activities (see References).

**Weschler Intelligence Test for Children - Revised (WISC-R):** psychometric test which combines verbal and performance scores to form an Intelligence Quotient (IQ).

**Weschler Pre-school Intelligence Scale (WPPSI):** equivalent of WISC-R for pre-school aged children.

**work experience:** temporary unpaid employment, where students under guidance from the school, can experience a work environment.
Literacy learning of adolescent students with intellectual disabilities: A case study inquiry.

by Pam Twee

Diploma of Teaching (Infants/Primary)
Graduate Diploma of Education (Resource Teaching)
Master of Education

A thesis presented to the University of Western Sydney Macarthur in partial fulfilment of the requirements for the degree of Doctor of Philosophy


Multimedia item accompanies print copy
This work is dedicated to my husband, Mark and my children, Joshua and Sarah, who supported me with patience and encouragement and to my mother, Marjorie Aileen Wilson, who blessed me with her presence. I would also like to thank: Dr Alan Williamson and Dr Kaye Lowe, who were always there with professional advice and support.
Statement of Authentication

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in whole or in part, for a degree at this or any other institution.

[Signature]
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ABSTRACT

This study explores the learning, and specifically literacy learning, of intellectually disabled adolescent students. Factors that have influenced this learning throughout the adolescent's education are identified. It was undertaken to address a gap in the practical and theoretical knowledge of literacy in the field of mild and moderate intellectual disabilities. Although there has been extensive research into literacy and disability independently, there has been little that specifically combines the two. Nineteen case studies of the literacy development of adolescent students with mild and moderate intellectual disabilities were developed through observations in their classrooms and of related activities, interviews, questionnaires, analysis of work samples and research into the personal and educational histories of the students.

The results of the study show that there were three main influences on literacy development for these students. These were the unique nature of the learner, home and family factors and the impact of school on the literacy learning of these students from their early learning and through their years of formal education. Within these categories, specific influences on the adolescent's literacy development were revealed, providing teachers and others involved with the care and welfare of such students with valuable information on which to base appropriate learning experiences.

This study adds to current research on the learning of adolescent students with intellectual disabilities by looking specifically at literacy development and using qualitative approaches to search within and beyond the classroom for issues which affect their learning. It examines literacy learning in the light of the whole person and focuses on factors which influence the literacy learning of disabled adolescents. Practitioners in education and in the care of disabled children can use the study's findings to build a framework of knowledge to develop appropriate educational placements, programs and support for learning by drawing on significant aspects of the child's personal, social and educational development.