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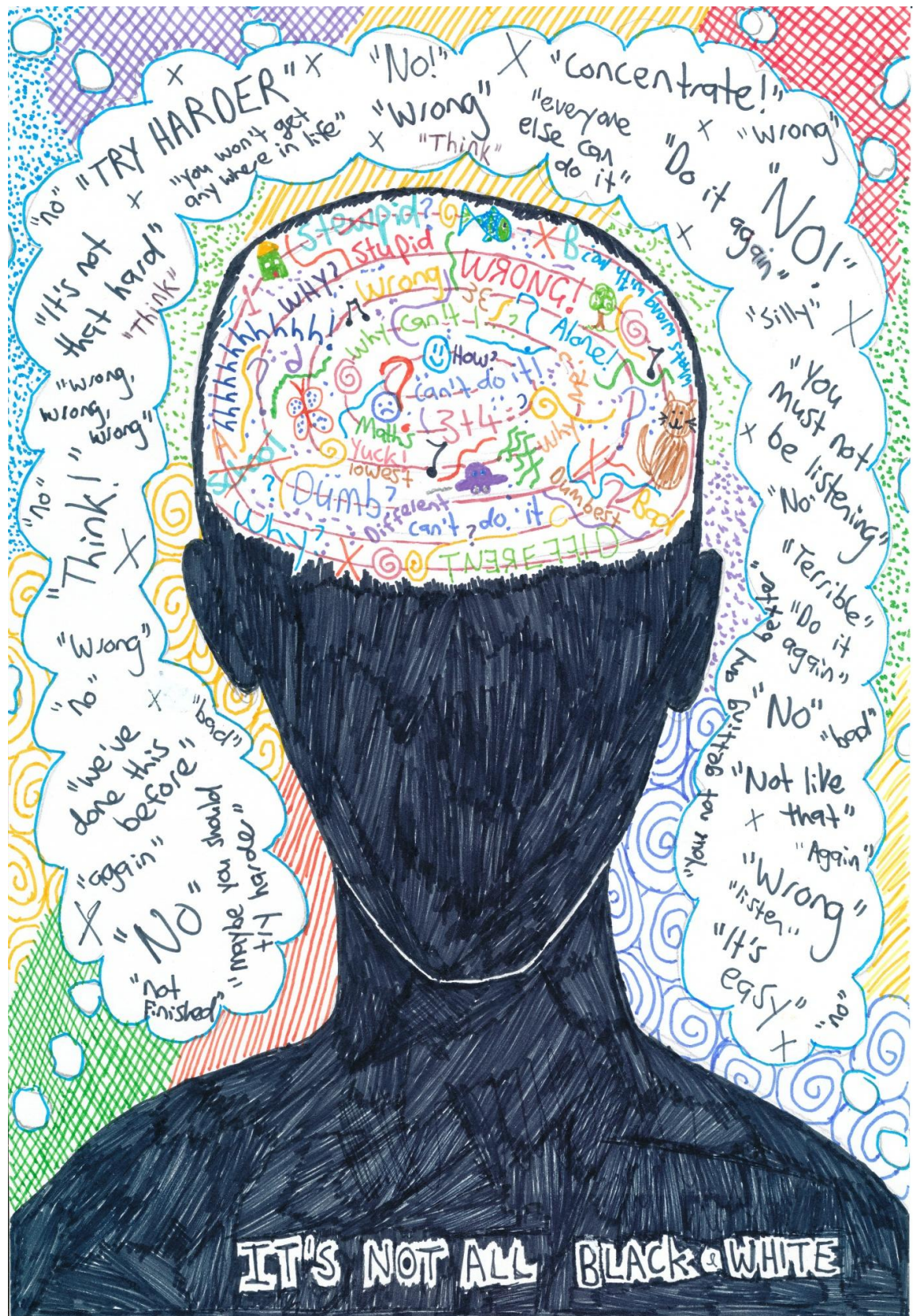
It's Not All Black and White:

The transition of students with dyslexia into
the first year of university study.

A thesis presented in partial fulfilment of Master
of Education (Adult) at
Massey University (Manawatu)
New Zealand

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"It's Not All Black & White" by Claire, September 2009

Abstract

This thesis is a qualitative study using constructivist grounded theory of the learning experiences of four students at one university in New Zealand. The students, ranging in age from 18 to 22 years, identify as being dyslexic. It is an exploration of the ways in which dyslexia has affected their prior educational experiences, their decision making about future study, and their transition into the first year of university study. The ways in which students frame their understanding of dyslexia and how this affects their approach to learning at university are investigated.

This thesis uses an interpretivist methodology and the grounded theory methods of Charmaz (2006). The thesis starts with an outline of the epistemological basis for the research, followed by a discussion of the place of literature in grounded theory methods, use of the literature in this study and a review of the literature. The methodological basis and methods used in this study are then presented.

The presentation of the participants' interpretation of their experiences of learning with dyslexia and transition to university are given as individual synopses and through categories which emerged from the data. The main findings are presented in the discussion using a tentative model based on four stages of discovery, acceptance of dyslexia, and learning with dyslexia which frame participants' experiences and decision making. Two factors of importance overlying the model are: the discourse of dyslexia presented to and held by the student, and the degree to which the students are able to self advocate.

The absence of a common understanding of dyslexia has affected the students' self confidence, and ability to advocate at university level. The academic resilience, academic buoyancy, and determination of these students to succeed and be accepted as capable learners, despite educational barriers, is related to the recognition of dyslexia by the student and society, and the nature of support provided in earlier education. The findings in this thesis provide a basis for further understanding of the transition to university for students who have struggled in high school, and for a wider acceptance of the varied ways in which learning differences can be supported in education.

Acknowledgements

My thanks to Claire, George, Jack, and Jane, the participants of this study whose stories fill this thesis. Thank you for your courage and openness in sharing your experiences, especially when the telling was difficult, and for your commitment to your education and determination that others should understand what helps students with dyslexia to succeed – I have learnt so much, I thank you.

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Photographs

Frontispiece: "It's Not All Black & White" by Claire, September 2009

Photo 1: Surrounded by Words – Jane

Photo 2: "The weight of literacy on your shoulders" – Jane's portfolio

Photo 3: The Growing Weight of Words – Jane

Photo 4: Almost at Breaking Point - Jane

CHAPTER ONE

INTRODUCTION

1.1 Introduction

They arrive in class young, fresh and, most of the time, enthusiastic. Teaching first year university students the ways and means of academic writing and communication presents me with an opportunity to observe the transition of students to university study. Most students will successfully negotiate the academic culture, course requirements, and different administrative and assessment requirements. For some students the challenges of the transition from secondary school into tertiary study or work are more complex. In my classes, some students identify themselves as lacking confidence in academic reading and writing based on their experiences at secondary school. Amongst these students, a number have disclosed that they learn with dyslexia.

As a parent of a student learning with dyslexia, I am aware of the implications of having a reading or writing difficulty in the New Zealand education system where dyslexia has only recently been recognised. Classroom teachers often have little knowledge or understanding of dyslexia (Dyslexia Foundation of New Zealand, 2007). Families face struggles getting students assessed, having the assessment recognised, and students supported in schools. Diligent students with dyslexia struggle with time limited assessments and with examination structures, based on an expectation of high levels of literacy (Mortimore & Crozier, 2006). Students often receive little recognition from teachers for the effort they put into work and are subject to peer criticism about their struggles with reading and spelling (Burden, 2008; Carroll & Iles, 2006).

Despite these struggles, students with dyslexia do succeed in compulsory education and then choose to continue on to study at tertiary level (Carroll & Iles, 2006; Cottrell, 2003; Riddick, Sterling, Farmer, & Morgan, 1999). Working with these students in my classes results in a number of questions for me: What is it about these students that keeps them in study when others choose to leave? How do these students manage their transition to university where high levels of literacy and numeracy are assumed? What is the impact of previous learning experiences on their decision to continue to

study? What sort of support systems did these students have in the past and have they been able to establish at university?

As a part of a post graduate research methods paper I asked those questions of four university students with dyslexia (Rowan, 2010). Their responses - they saw themselves as having the same academic ability as their colleagues, had variable experiences of support systems in secondary school, and didn't know what it was to learn without dyslexia - intrigued me and raised a new set of questions. With New Zealand having ignored dyslexia for so long: What is the student's view of their dyslexia? What decisions do they make about future career options in secondary school in Years 9 or 10 when students are encouraged to choose subjects for a particular career path? Had these New Zealand students limited their educational choices based on assessment judgements which may not reflect their academic ability? What role have support systems played in their decision making? How have they selected their course?

My approach to this research is influenced by my personal views of teaching, dyslexia and family experiences. I believe students' opportunities for successful development of knowledge and academic skills are impacted by: the learning environment; communication with the teacher; teacher understanding of students and student understandings of themselves as learners; the accessibility of the academic environment; and the nature of support and encouragement within educational institutions. If as a teacher I understand student goals, motivations, confidence levels, and past learning experiences I can help guide students to find appropriate learning strategies to help them reach their academic goals. Working with first year students provides the opportunity to do this.

This research is also influenced by my experiences as a parent of a child, now a university student, with dyslexia. Our journey through compulsory education has been one of struggles to break through misconceptions of what dyslexia is, to find advice and support, and to develop teaching and learning strategies that work for him. We have found many open doors, and many closed doors. We have grieved for what could have been if our education system had recognised and included learners with dyslexia as other countries have. But we have celebrated success and remain thankful for what

has been, and the future that awaits us. My experiences influence the research choices and content presented in this thesis.

1.2 Why This Study?

A key factor in the development of this study was the lack of understanding of the motivation and persistence of this group of students who face many complex obstacles in the teaching and learning environment in New Zealand. I believe that successful students with dyslexia can teach us a lot about what helps to keep students in education. A second rationale for this study was the lack of literature and knowledge of the factors important in the learning experiences and educational successes of students with dyslexia in New Zealand. Riddick, Farmer and Sterling (1999) found that a greater understanding of academically capable learners with dyslexia who had gained entry to university in Britain was needed to keep students with dyslexia in compulsory and tertiary education. This study provided the evidence to support the implementation of new learning and teaching approaches to allow these students to work at their potential. International studies indicate that teaching practice which supports learners with dyslexia improves educational outcomes for all students (Herrington, 2001a; Reed et al., 2009). In the political environment where secondary qualifications are being used to demonstrate students' suitability for higher academic study and restrict access, the more we know about persistence, motivation and other student characteristics that lead to the successful transition of students to university, the more we can enhance the academic experience and improve the quality of educational outcomes for all students.

In New Zealand in 2010 there are approximately 41,000 students in their final year of secondary school study, many of whom will be considering some form of tertiary study (Ministry of Education, 2010). Nationally and internationally the completion of tertiary education is seen as a valued attribute in individuals within a progressive and well functioning society. This is reflected in New Zealand governments successive policies and resourcing of post-secondary education (New Zealand Ministry of Education, 2010; Office of the Ministry for Tertiary Education, 2006). Consequently, students are taking on increased risk and debt to improve their educational qualifications in anticipation of better opportunities for long term employment (Shulruff, Hattie, & Tumen, 2008). Current government priorities for tertiary education include: supporting under 25 year olds to complete degrees, and the successful transition of young people from

secondary school to tertiary education (New Zealand Ministry of Education, 2010, p.10). Recent changes in tertiary education policy and funding by the government restrict access to financial assistance, and course entry to tertiary study, for first year students based on past performance in the New Zealand Qualifications Authority's National Certificate in Educational Achievement (NCEA) acquired at secondary school (New Zealand Ministry of Education, 2010). Capping of places in courses and institutions will also affect student access. At the institutional level, funding through tertiary study will be supported based on student success in the first study year. This raises the question of whether we are doing enough to help all students get the qualifications, advice, and support they need to make a successful transition from secondary school to tertiary study.

The transition of students from compulsory education to tertiary study is influenced by a complex mix of government ideology and policy, institutional management, the teaching and learning environment, and students' personal characteristics (Braxton, 2000; Yorke & Longden, 2008). On one side, there are factors about the educational environment and how government legislation and institutional policy value education and student diversity (Haggis, 2006). On the other side, there are the social and cultural capital developed from student experiences of prior learning, support and success in secondary school, and student expectations of tertiary study (Choy, Horn, Nunez, & Chen, 2000; McInnis, James, & Hartley, 2000; Yorke & Longden, 2004; Zepke, Leach, & Prebble, 2006). Incorporated into this mix also are societal views and expectations of students, their capabilities and how these are defined (Haggis, 2006).

Studies on the transition of students to tertiary study recognise that the first year experience is important to transition, success and completion (Haggis & Pouget, 2002). This first year experience incorporates how students' engage in their studies, in university society, and access teaching staff and support systems (Krause & McInnis, 2005; Trotter & Roberts, 2006). High school academic results have been shown to be good indicators of success in the first year of tertiary study (Shulruff, et al., 2008). However, prior learning experiences also influence the way students study, perceive themselves as learners, and what self advocacy strategies they have (Ferla, Vlcke, & Schuyten, 2009; Hozil, Cree, Hounsell, McCune, & Tett, 2006; Laing, Robinson, & Johnston, 2005). The indicators are that the earlier the decision is made to pursue study at higher education the more successful the transition experience (Choy, et al.,

2000; Kantanis, 2004; Stage & Hossler, 1989). As Kantanis (2004) identifies, "Preconditions for a successful academic transition and retention are social transition and enculturation into teaching learning styles, life, procedures, practices and culture of the university" (p.4).

For students with dyslexia the transition to university is different (Chanock, 2005). Students with dyslexia with weaknesses in literacy often do not have secondary school results which reflect their academic ability (Chanock, 2005; Mortimore & Crozier, 2006). Lack of teacher and system understanding of dyslexia and inappropriate levels of teaching learning support have often affected prior learning experiences and academic outcomes (Cottrell, 2003; Pollack, 2005). However, these students do attain the required university entrance qualifications and see university as an opportunity to prove their academic capability based on their hard work and persistence. This makes it important that these students access appropriate course information, support people and learning tools as swiftly and effectively as possible (Herrington, 2001b; Pollack, 2005). The discourses held by administrators and teachers within the education system affect the approaches taken towards teaching and supporting these learners. The discourse held by others, and within the learners themselves, of their ability and capability also affects the educational choices that are made (Herrington, 2001a; Hunter-Carsch & Herrington, 2001; Pollack, 2005), and their success and completion of qualifications.

The number of students with dyslexia negotiating the compulsory education system and continuing onto tertiary study in New Zealand is unknown. We do know that many students who leave education early have low levels of literacy and numeracy. Yet some students with dyslexia do succeed, and do continue on to study in higher education. Understanding what factors are important in their progress and decision making can help educators and policy makers to develop learning strategies and approaches that can support a range of students for whom literacy is a struggle.

1.3 The New Zealand Context

The limited recognition of dyslexia in New Zealand has been, and continues to be a controversial subject. In the 1996 International Adult Literacy Survey 7% of respondents in New Zealand identified themselves as having learning difficulties or dyslexia at a time when these terms were not recognised within the education system

(Chapman, Tunmer, & Allen, 2003). Despite this there has been resistance by educational policy makers and teachers to acknowledge and resource learners with dyslexia based on the belief that current literacy teaching practices, special education resourcing, Reading Recovery, and Reading, Teaching, Learning and Behaviour support systems are available and adequate for all students (Tunmer & Greaney, 2010).

Increased awareness of dyslexia nationally and internationally led to the Ministry of Education recognising dyslexia in April 2007 and putting in place a programme to: formulate a definition of dyslexia, produce a booklet on dyslexia to assist current teachers, and to an extended timeframe to address trainee teacher awareness (Ministry of Education, 2008). Current effective pedagogic practice includes assisting teachers to promote a supportive learning environment and opportunity for students to learn. Yet there is no strategy at secondary or tertiary level to enable learners with dyslexia to perform at their potential. Consequently, the New Zealand situation offers a unique study context where students with dyslexia have not been officially labelled as, provided for, or treated as having a disability, difficulty, gift or impairment. Researching the learning experiences of students with dyslexia who have finished compulsory schooling, and are now in tertiary study, can provide educators with an understanding of the factors important in their success. This can inform teaching and learning practice, and educational policy in secondary and tertiary education; assist in making appropriate learning support systems more accessible; and assist in developing a wider range of national assessment that better reflect knowledge and achievement.

The Tertiary Education Strategy 2010 - 2015 (New Zealand Ministry of Education, 2010) identifies the government education focus for tertiary education as helping young people achieve at their highest potential. The objectives to achieve this include: providing an inclusive environment which supports the successful transition from school to tertiary education through providing support for students; and the opportunity for New Zealanders from all backgrounds to gain a world class education (New Zealand Ministry of Education, 2010, p.12). For all students the decisions to attend, transition into, stay, and succeed in tertiary study are in part influenced by the individual's cultural capital as well as institutional practice and wider educational policy. Researching the experiences of students who must overcome additional obstacles to succeed will add to knowledge about students who learn at tertiary level and inform teaching and learning.

1.4 Research Aims

This research aimed to investigate how the prior experiences of learning affected students with dyslexia as they transitioned to tertiary study in New Zealand. An interpretivist approach was used to research the following objectives:

- To investigate how prior learning experiences affect the decision making and transition to tertiary study in Aotearoa/ New Zealand for students who learn with dyslexia.
- To contribute to the body of knowledge on learning with dyslexia in Aotearoa/New Zealand by reporting on the understanding and experiences of students.
- To contribute to the body of knowledge on student transition to tertiary study in Aotearoa/New Zealand.
- To identify implications for educational policy makers and institutions.

1.5 The Research Questions

The main research question of this study was:

- How do the prior experiences of learning affect students who learn with dyslexia as they transition to tertiary study in New Zealand?

Sub-questions posed at the start of this research were:

- What are the perceived prior learning experiences of students who learn with dyslexia?
- How have these experiences affected their transition to the first year of undergraduate study in New Zealand?
- What are the implications of these experiences for educational policy makers and institutions?

During the study two further sub-questions emerged:

- What expectations do students who learn with dyslexia have of university and study at university?
- How does the student discourse of dyslexia affect their decision making and the transition to university?

1.6 Outline of Thesis

This thesis is divided into six chapters, each covering a different aspect of the research. Chapter one presents an introduction to the research topic and the rationale behind the decision to research this area. In chapter two an outline of the place of the literature in grounded theory methodology, constructivist grounded theory and its use in this study is provided. This chapter also includes an overview of the literature which informs the design of this study. Chapter three looks at the ontological, epistemological and methodological approaches to the study. The overall research design and methods, data gathering tools and processes that were used in this study are discussed. Chapter four covers the findings of the study. In chapter five the model developed from the key themes that emerged from the findings is presented and discussed. The model and ideas identified in the wider literature are integrated together. Chapter six presents the conclusions from this study, makes suggestions for improving teaching and learning opportunities for students with dyslexia or literacy struggles, and suggests areas for future research.

CHAPTER TWO

THE LITERATURE

2.1 The Role of Literature in Grounded Theory

Grounded theory is a systematic but flexible method of data gathering and analysis of qualitative data to develop theory that is “grounded” in the data (Charmaz, 2006). It enables the development of theory which uses the words of the participants and researcher to describe what is happening.

The place and use of the literature within research is generally dependent on the methodology and the research question (Blaxter, Hughes, & Tight, 2001). Within traditional grounded theory methods the literature is reviewed after the analysis of data and themes are completed. The reason for this is that the purpose of grounded theory is the discovery of relationships and actions about phenomena rather than the testing of other already identified themes (Glaser, 1998; Glaser & Strauss, 1967; Stern, 2009). Glaser (1998) suggests that reading before the data analysis can alter the research perspective, can have the independence of the research compromised by reviewing the writings of authorities, and ultimately can be a waste of time as data analysis reveals the theory that needs to be considered. However, Strauss and Corbin (1990) acknowledge that all researchers bring with them a background in professional and disciplinary literature; it is the reviewing of this literature which reveals the gaps which inform the research proposal.

In this study I used the literature to identify the topic and its place in the wider educational context. In this thesis the literature appears as a separate chapter to provide an introduction and overview to frame the study. The literature is used again at the end of the study throughout the discussion chapter (chapter 5) where it assists in the explanation of the findings of this research project (Cohen, Manion, & Morrison, 2007; Strauss & Corbin, 1990, 1997). The way in which the literature informs this study is shown in Figure 2.1. In the first stage the literature on transition and discourse of dyslexia informed the thinking and development of the research proposal, providing grounding for the research and helping to define the methodological approach and epistemological assumptions. In the second stage of literature review, after the data

collection and analysis had taken place, the findings of this study were compared with a wider body of literature around the experiences of transition to tertiary study for students with dyslexia, self advocacy and academic resilience.

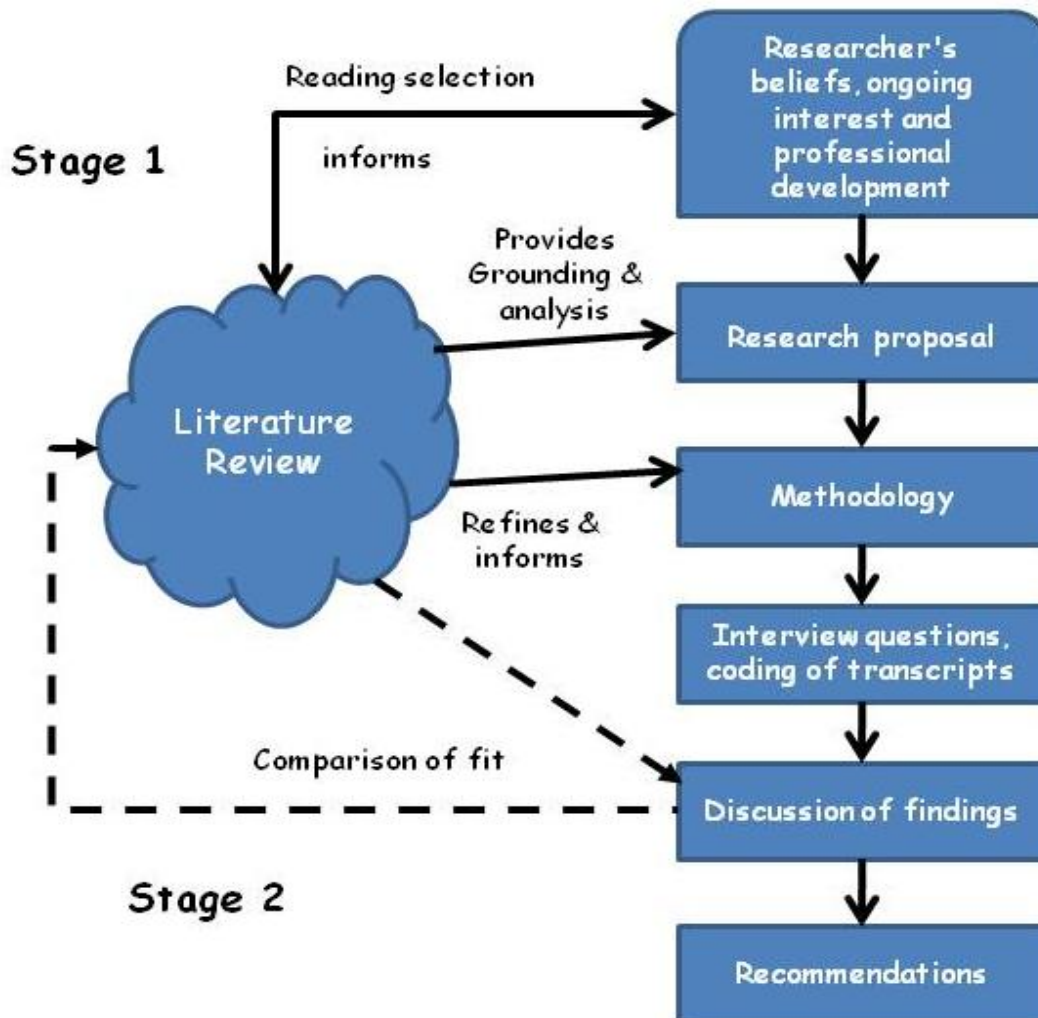


Figure 2.1 Place of the Literature in this Study.

This chapter examines the literature which has informed my thinking throughout the research study looking for answers to four major questions:

What does the literature report about the:

- factors that are considered important in the transition to tertiary study?
- influence of prior experiences of students in the transition to tertiary study?
- definitions of dyslexia, the discourses behind the definitions and their purpose?
- experiences of students with dyslexia in the transition to tertiary study?

2.2 Transition to Tertiary Study

The basis of this study is my interest in the transition of students from secondary school to tertiary study. In this study I have used the term transition to mean the period from considering tertiary study as an option (as early as Year 8), through the choosing of a institution and course to study, enrolment in and attendance at a tertiary institute, and the experience encompassed by the first year of study.

Students considering the move from secondary school to tertiary study go through stages that shape their final choice and transition: their decision making processes, their application, their selection of course and institution, and ultimately their success and completion in the first year of study (James, 2002; Kantanis, 2004; Krause & McInnis, 2005). Since the 1990s the New Zealand Government has provided funding for tertiary institutions on the basis of enrolment numbers and completion rates. With a change in government in 2009 the focus has shifted to the quality of students passes, and applicability of tertiary courses to the job market (New Zealand Ministry of Education, 2010; Tertiary Education Commission, 2006). This has increased the emphasis on the importance of student transition to tertiary study, institutional retention strategies and more recently, has recognized the importance of the first year study experience in the completion of a higher education qualification (Leach, Zepke, & Prebble, 2006; Zepke, et al., 2006).

There is a large body of research internationally on student transition, retention, and study success in a variety of tertiary education environments. Research studies are mainly from the USA, but also from a wider range of countries including Canada, The United Kingdom, Australia and New Zealand. Initial theory focusing on departure (why students might leave higher education) looked at the institutional culture and practice, and the inability of students to adapt to the learning environment (Braxton, 2000; Yorke & Longden, 2004). Taking an interactionist approach, Tinto (1988) proposed that early departure of students from higher education resulted from the lack of integration into the academic environment. Students' social background, academic skills and motivation were seen as not suited to tertiary study. Large scale empirical studies by Terenzini, Pascarella, Braxton, and others, across a range of types and sizes of universities and two year colleges showed varying support for the theory (Braxton, 2000). This theory placed maintenance of the institutional structure and culture as the priority with students needing to fit in.

Researchers then started to look at the wider interactions between institutions and students. A shift to a student centred perspective saw that student departure from higher education involved both external and internal factors, and occurred when the student's values and beliefs differed from the prevailing culture of the institution or course, or when the student became isolated from communities of learning (Braxton, 2000; Tinto, 2006/7). In particular a connection was made between the first year experience, student academic persistence and differences between the students' and the institutions' cultural capital.

Cultural capital is based on Bourdieu's theory that societies or groups have characteristics, norms, languages and values which set them apart. Cultural capital, like economic capital, is a resource which is accessible to the dominant class in society. This class determines who, or what, is included and replicates itself through education and educational structures (Bourdieu (1973) in Richardson, 1986). Students whose cultural capital differs by ethnicity, socio-economic status, gender, or prior learning experiences (for example) find themselves in a strange learning environment which has its own expectations of students, student autonomy, and transfer of knowledge. The dominance of the institutional culture dictates how much it is prepared to shift norms and values to include others. This shift to a student centered perspective acknowledged the importance of understanding students and resulted in a greater number of mixed methods studies (Choy, et al., 2000; McInnis, et al., 2000; Trotter & Roberts, 2006; Zepke, Leach, & Prebble, 2005; Zepke, et al., 2006) which explored the diversity of students and their cultural capital.

Stage and Hossler (1989, 2000), in a student-centred approach to study the psychological concept of persistence, determined that students' personal characteristics, attitudes and behaviours in secondary school affected their higher education experience and endurance. They identified, using Bandura's theories of personal agency and self efficacy, the factors that students saw as being within or without their capability to change, and how this affected student goals. This student centred model (Figure 2.2) includes the background of the individual and the cultural capital they bring with them to the learning environment; the effect past school experiences have had on aspirations and behaviour; the students' intentions and preparedness for study and consequential engagement in study; institutional entry criteria and appropriateness of course selection; and finally, how these factors affect

overall student persistence (Stage & Hossler, 1989). Other studies have also posed that the students' prior learning experience, family context, and expectations of university impacted on what is now referred to as student engagement in the first year of study (Choy, et al., 2000; Kantanis, 2004; McInnis, 2003).

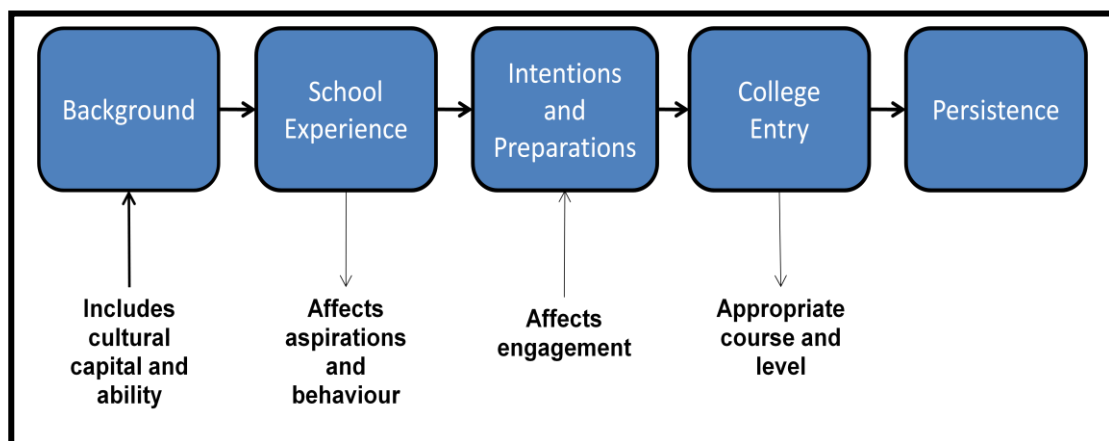


Figure 2.2 Student Centred Model of Success (after Stage & Hossler, 1989, in Braxton, 2000)

The recognition of the diversity of the student population has seen a shift to the study of distinct groups of students for a range of socio-political reasons. Herrington (2001) presents a socio-cultural model of the transition from secondary schooling to tertiary education, for students who require some form of learning support (Figure 2.3).

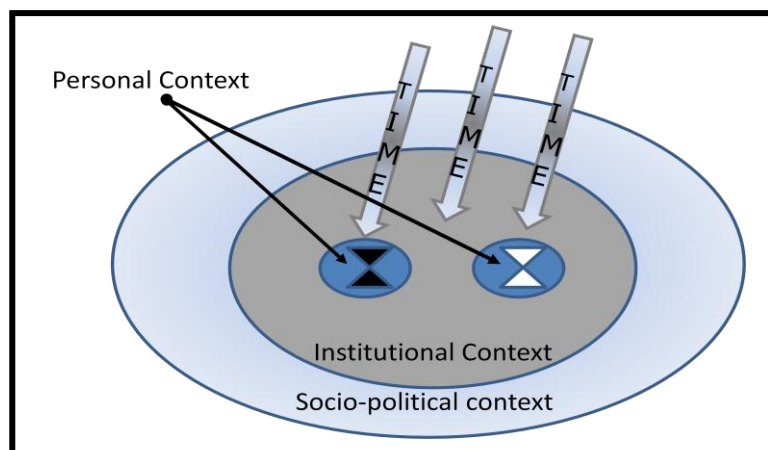


Figure 2.3 Socio-cultural Model of Transition from Secondary to Tertiary Education (after Herrington, 2001b)

This model goes beyond Stage and Hossler's student-centred approach on the basis that good teaching and learning practice should also consider where the individual fits

in the institutional and socio-political context (Herrington, 2001b). This wider approach identifies the socio-political significance of social constructions, such as literacy and illiteracy, and recognises and incorporates individual differences which are important in learning, such as motivation and persistence, affecting the success of the transition process. Mismatches in expectations of the learning environments have consequences for the quality of the learning experience which affects student's persistence and institutional responses (James, 2002). As noted by Klein "we need a match between how people learn, their learning goals and the learning environment" (in Hunter-Carsch & Herrington, 2001, p. 143).

These shifts in theoretical approaches in the study of transition were a response to the realisation that students are not a homogeneous group and also due to advancements in social theory. Changes in socio-political and socio-economic situations have also resulted in a more diverse student population and greater numbers in attendance. Studies have continued to look at the experiences of selected groups of students with first year students being a major study group.

2.3 Experiences of First Year Students in the Transition to Tertiary Study

Research into the transition, retention, and success of students has shown the first year tertiary experience is shaped by: decision making process at secondary school (Boyd & McDowall, 2003; Choy, et al., 2000; Krause, Hartley, James, & McInnis, 2005; Loader & Dalgety, 2008); student expectations of, and engagement in learning (Ferla, et al., 2009; Haggis & Pouget, 2002; Hozil, et al., 2006; Krause & McInnis, 2005; Laing, et al., 2005; Trotter & Roberts, 2006); prior learning experiences and academic results (Haggis & Pouget, 2002; Krause & McInnis, 2005; Shulruff, et al., 2008); and the use of support systems (Hozil, et al., 2006; Kantanis, 2004).

Student Expectations of Tertiary Study

Student expectations and their decision making process impact on the final fit of the student to the selected course of study (Tinto, 2006/7). In large scale, mixed methods studies of Australian first year students James (2002) and McInnis et al. (2000) found students enrol for a variety of socio-economic, educational and personal reasons. These influence the selection of institution and courses and ultimately the fit of the

student to their course. Yorke and Longden (2004) found if there is adequate pre-enrolment information then suitable course decisions may be made; otherwise poor decision making is likely to result, leaving a gap between expectations and reality. Mismatches in course expectations between student and faculty affect the quality of the learning experience (Yorke & Longden, 2008). However, James (2002) found that where the students' experience exceeds their expectations they are more successful and determined to succeed.

Student anticipation of, and anxiety and excitement about, tertiary study also affect the level of engagement students have (Hozil, et al., 2006) and how well reality aligns with expectations (Laing, et al., 2005). Preparedness for future study (Krause, et al., 2005), particularly understanding of teaching and learning strategies, beliefs (Ferla, et al., 2009; Haggis & Pouget, 2002; Hozil, et al., 2006; Trotter & Roberts, 2006), and appropriate study skills (Krause, et al., 2005; Laing, et al., 2005) affect whether surface learning or deep learning takes place (Ferla, et al., 2009; Hozil, et al., 2006). Trotter and Roberts (2006), Krause et al. (2005) and Kantanis (2004) also found the level of access to, nature of, and availability of lecturer, tutor and learning support are important as students start the engagement process.

Prior Learning Experiences

Students' prior experiences of learning and family knowledge of tertiary education affect the decision to attend (Tinto, 2006/7). Large group studies of students show approaches to learning are influenced by past experiences of what has and hasn't worked (Mann, 2001) and determine the level of preparedness for study at this level (Yorke & Longden, 2008). Researching self theories, and their relationship to student learning experience, Yorke and Knight (2004) found that where students believed that ability was fixed they matched their input to confirm their belief in their level of ability. Where they saw ability as changeable, or developing, they could see opportunities for learning in the new environment. Student perspectives of themselves as learners resulted in them setting performance goals to demonstrate their achievement, or learning goals where they engaged more deeply with the subject material (Yorke, 2006). Students' perceptions of capability are influenced by the provision of and access to academic support. Choy et al. (2000) and Kuh (2007) found that student background characteristics and high school behaviours affect the actions students take in tertiary study.

Resilience

Student adaptation and resilience within new environments affects the transition process. Traditional approaches to defining resilience in education are an eclectic mix of learning experience, cognitive and social development, socio-economic factors, social constructions and persistence. The term is used to describe how able a student is to recover from varied experiences and this is construed as having developed resilience (Brooks, 2001; Johnson, 2008; A. Martin, 2002; Walker, Gleaves, & Grey, 2006). Martin and Marsh (2009) believe that the term resilience does not sufficiently reflect the intention of students' behaviours in education and have separated 'academic resilience' and 'academic buoyancy' from the general description of resilience. Academic resilience is defined as a "student's capacity to overcome acute or chronic adversities that are seen as major assaults on educational processes" (p. 353). Academic resilience may be influenced by academic buoyancy which looks at the students' behaviours in dealing with the "ups and downs of everyday academic life" (p. 353). Martin and Marsh's distinction between academic buoyancy and academic resilience is based on behaviours towards long term or permanent situations versus behaviours towards short term or immediate situations. Academic resilience is seen in individuals when they deal with such things as: consistent under-achievement, anxiety attacks that would immobilise them, academic fatigue from failure, effects of depression and anxiety, and decisions to withdraw or continue at school. Academic buoyancy is seen in reaction to: occasional poor performance or grades, typical daily pressures and stress, 'threats to confidence as a result of poor grades', low levels of stress and attacks on confidence, and in variability of motivation and commitment (Martin & Marsh, 2008a, b in Martin & Marsh, 2009, p.356). The distinction between the two means that a closer examination of student behaviours, aside from the factors outside a student's capability to change, can be made.

Academic Achievement

Academic achievement at secondary school is known to be a good indicator of successful transition and completion of first year for students (Haggis & Pouget, 2002; Ussher, 2007, 2008). In New Zealand success in the first year of study and beyond at university have been linked to the quality of credits undertaken under the NCEA system (Shulruff, et al., 2008; Ussher, 2008). Hozil et al. (2006) and Krause and McInnis (2005) found positive prior experiences affect self concepts of academic ability, the support systems necessary and preparation for future study. Levels of engagement at

secondary school have also been identified by Choy (2000) as influencing levels of engagement at tertiary study. However, I believe that using academic achievement as a measure of success is not without problems. These large scale quantitative approaches assume that all students have equal access and opportunity to learn and demonstrate their level of knowledge in assessments. Even if a student has gained entrance requirements to university, other issues such as personal strengths and cultural capital, may affect the outcome.

Support Systems

Another major factor is the support systems available to the student during the decision making process and through the first year. Support systems are a part of the student's cultural capital and include people, systems and socio-economic factors which influence thinking and action. Hozil et al. (2006), Kantanis, (2004) and Krause et al. (2005) found these two factors closely entwined. Kantanis (2004) identifies that for non-school leavers or those with a gap between secondary and tertiary education the level of support is just as important as for school leavers. Parents' education and income (Leach & Zepke, 2005; Stage & Hossler, 1989, 2000), expectations (Krause & McInnis, 2005) and knowledge of tertiary education influence decision making and experiences. Where the support to continue in study comes from is important in understanding student decision making.

In New Zealand recent studies (Loader & Dalgety, 2008; Ussher, 2008) suggest that increased open entry and financial assistance for a variety of levels of tertiary study make parents' socioeconomic status less important compared to the level of academic achievement in secondary education. Students from lower decile schools are able to take up more targeted industry training schemes and the opportunity to study for a wide range of qualifications provided by universities, polytechnics and wananga. However, other factors which do impact on the decision to continue in study include the support of a teacher or teachers, and interest in a particular career or subject (Boyd & McDowall, 2003; Haggis & Pouget, 2002; Krause, et al., 2005; Loader & Dalgety, 2008). These large group studies provide data to test theory or propositions about students' cultural capital at a general level. However, within these large cohorts of students there are smaller groups whose cultural capital and experiences may not fit these studies assumptions. One such group is students with dyslexia.

2.4 Discourses of Dyslexia

Dyslexia is a paradox. We know that dyslexia exists and yet much about dyslexia remains unknown. Characteristics differ between individuals. Learning difficulties experienced by learners with dyslexia are often confused with, or linked to, other learning and behavioral difficulties by academics and learning specialists. There are a variety of cognitive and psychometric tests used to determine dyslexia, yet no clear indications of what works or doesn't work in assisting learners (Fischer, Bersten, & Immordino-Yang, 2007; Mortimore & Crozier, 2006; Pollack, 2005). No single definition of dyslexia is accepted within societies, across disciplines or between countries due to the lack of clarity about what dyslexia is. There is a more general lack of agreement about the cause of, and solutions to, problems in the acquisition of literacy. However, recent studies in brain function scans indicate that people with dyslexia do, in fact, use different areas of the brain for reading and writing processes than what was expected (Fischer, et al., 2007; Wolf & Ashby, 2007). There is now a group of researchers including Griffin and Pollack (2009) and Shaywitz (2003) suggesting that dyslexia is not a problem but a different way of processing information during learning that distinguishes these learners from other students.

I use the term dyslexia to indicate a broad range of difficulties encountered by people when dealing with literacy within education and the social worlds; for students who have capabilities in wider thinking and processing that are not reflected in current means of assessing knowledge and abilities. In this study the participants identify themselves as having dyslexia. Dyslexia forms a part of their cultural capital. Their views of dyslexia and the affect of dyslexia on their learning are formed by the discourse they hold. The next section presents the four main discourses of dyslexia I have identified in the literature.

Discourse

The way in which dyslexia is viewed, defined, researched and supported is based on the underlying assumptions held by the discourse within which it is described. Discourses are produced within societies based on what is believed to be true and false. This knowledge is then used within a discipline or specialist area which controls, selects, organizes, and communicates this knowledge (Foucault, 1972). This handling of knowledge retains power in the hands of those who define knowledge to decide: what is included or excluded, who has the right to speak, what knowledge is, and

which contexts fit its parameters (Corker & French, 1999). While it appears that discourses are a dichotomy of inclusion-exclusion, Foucault (1972) identifies a third position between the two which no-one wants to address: what is clearly not proven or disproved is either ignored or manipulated in a way that the discourse can address it.

Dyslexia seems to sit in Foucault's third position. Foucault (1972) points out that not all areas of discourse are "equally open and penetrable", that there are areas within a discourse which cannot be challenged (p. 18). In the discourse of dyslexia there appears to be three areas that haven't to date been challenged. The first proposition is that problems in the acquisition of literacy skills are the fault of the individual; second, that there exists a societal norm within which all learners can and must fit, and that what we know about student learning and teaching methods addresses this fit; and finally, that reading and writing fluency and accuracy under time constrained environments provides an effective measure of knowledge acquisition, and therefore academic ability. Inherent in the last proposition is that literacy is a measure of intelligence.

For the purposes of this literature review the prevailing discourses have been grouped into four major areas: the medical deficit discourse, the cognitive educational impairment discourse, the social affective discourse, and the emerging difference discourse.

Medical Deficit Discourse

The medical deficit discourse sits within a positivist epistemology of determinism - that events and objects have causes, and that science can uncover and understand these (Cohen, et al., 2007). Empirically based, this discourse holds that a theory can be verified by the observation of phenomena and the generation of evidence in the form of data, which can be set within statistical probability terms. The data assists in the determination of truth that is observable. This truth can then be applied universally to a population (Crotty, 1998). Within this discourse dyslexia is seen as the result of a biological dysfunction or abnormality in the structure or working of an individual's brain. This discourse was based on post-mortem anatomical studies of a small number of brains from people who had difficulties with reading and writing. The studies showed morphological and biochemical differences in brains when compared to

'normal' brains (Miles & Miles, 1999; Snowling, 2000). This anatomical difference was viewed as abnormal; the inferred brain dysfunction accepted as the cause of dyslexia.

Cognitive Educational Impairment Discourse

Originating from the medical discourse, the cognitive educational impairment discourse has developed as education has become more important in society. It focuses on the brain, the hemispheres of the brain and the cognitive functions of vision and speech in literacy (Snowling, 2000). Any difficulties with literacy are seen as the result of an individual neuro processing impairment. Since the 1970s psycholinguistic theories have emphasized the place of phonology (speech sounds), word retrieval memory, and the function of cortical and subcortical cerebellar areas in literacy processing in reading, writing and speech (Lyon, Shaywitz, & Shaywitz, 2003; Rice & Brooks, 2004; Wolf & Ashby, 2007). The empirical approach used in these theories determines the discrepancy between an individual's actual literacy performances against a standard performance. Reflecting the approaches of critical inquiry, researchers Hatcher, Snowling and Griffiths (2002), Ramus, et al. (2003) and Shaywitz (2003) believe that it is possible to re-create or transform the functioning of cognitive processes through intervention to replicate the norm (Crotty, 1998). The problem lies within the individual but, with the right intervention, the deficit can be overcome (Riddick, 2001; Snowling, 2000). This discourse looks to the medical discourse to determine the underlying cause of dyslexia.

Frith (1999), looking for a neutral framework to compare the different theories of reading developmental disorders, used three levels of description – biological, cognitive and behavioural - to describe dyslexia. He also incorporated an environmental level. This level recognises that there are other teaching, cultural attitudes, and socio-economic factors which influence literacy. In this model abnormality in the brain physiology or function is seen as the cause of the reading and writing difficulties seen in people with dyslexia (Frith, 1999; Ramus, et al., 2003). Frith's approach acknowledges individual variability and attempts to bridge the disciplines, but still takes an individual deficit position with the expectation that a 'cure' needs to be found. "We talk about dysfunction, deficit, abnormality and impairment without prejudice to value, but merely with reference to normative function, i.e. what is shown by the majority of the people" (1999, p. 196).

The Social Affective Discourse

The social affective discourse of dyslexia, based on Max Weber's (1864-1920) interpretive view, claims that society creates an understanding of a phenomenon – like dyslexia - without needing an explanation as to why it exists. This discourse accepts dyslexia as present in itself, and attempts to put aside current understandings and rethink the experience of, or meanings attached to, the phenomena so that new meanings can emerge (Crotty, 1998; Weedon & Riddell, 2005). "To take a fresh look at phenomena is, of course, to call into question the current meanings we attribute to phenomena" (Crotty, 1998, p. 82).

In this model literacy, the area in which dyslexia characteristics are generally observed, is seen as a socio-economic, socio-cultural, westernized construction (Miles & Miles, 1999; Riddick, 2001). Barriers based on assumptions about literacy are seen to restrict educational experiences. The barriers become the focus of attention (Macdonald, 2009) rather than individual impairment, lack of individual commitment, or lack of intelligence. By recognising individual variability and changing teaching practice interventions can be made to be inclusive and to improve literacy outcomes (Amesbury, 2006/7; Riddick, 2001; Wolf & Ashby, 2007). In my view this discourse looks beyond the difficulties lying within the individual, but still sits within a deficit approach. There is a cultural resistance to accepting individual differences. Rather than accepting a wider range of variability in learners being the norm the inadequacy is deflected to being within the system. Literacy as a measure of progress is retained and deficits within institutions are identified.

The Difference Discourse

An alternative view of dyslexia from a perspective of cognitive difference, rather than a medical or cognitive deficit, has emerged in recent research. There is a new emphasis on looking at brain function, thinking processes and how reading takes place (Wolf & Ashby, 2007). This demonstrates a wider acceptance that there are a variety of ways in which the brain processes reading and writing. Shaywitz (2003) found that the development of innate learning processes may be disrupted in teaching but that brain pathways can be changed to learn something new using existing strengths (Shaywitz, 2003). Griffin and Pollack (2009) propose that it is these neurobiological differences which cause a mismatch between the student and the environment. Acknowledging the cognitive differences between individuals sees the experience of learning, and the

complexities of the interactions between the individual and the environment, as affecting learning outcome. This view attempts to break away from the deficit view of anatomical difference. Other studies have found that where difficulties in the reading process are identified, and appropriate guidance offered, changes can occur in educational outcomes for both the student and the teacher (Hunter-Carsch & Herrington, 2001; Rice & Brooks, 2004).

It appears that the discourses of dyslexia taken on by groups or individuals are dependent on the information, and balance of the information, presented to them. The level of explanation and understanding of the discourse held by the professional and lay person in explaining dyslexia affects the capability of teachers, family members and the students themselves, to advocate for assistance in learning environments.

2.5 Reviewing the Literature on Students with Dyslexia in the Transition to Tertiary Study

The second stage of the literature review, using the constructivist grounded theory approach, was undertaken for the discussion chapter (chapter 5). I found my survey of the literature on transition to tertiary study for students with dyslexia confounded by a number of issues: the terminology used; disparate legislative frameworks defining, identifying and supporting dyslexic learners between countries; and the different discourses surrounding the topic. This has placed limitations on the usefulness of some studies. There are also a variety of other factors, such as the visibility of disabilities and perceptions of hidden disabilities, which also effect educational opportunities and accommodations.

Dyslexia, Learning Disability and Learning Deficit

The terms dyslexia, learning disabilities and learning deficits are used in the literature. In the USA students with dyslexia are described as having 'learning disabilities', and grouped with a wide range of learners who are unable to learn specific academic skills under Section 504 of the Rehabilitation Act of 1973 (Fink, 2007; Garrison-Wade & Lehmann, 2009; Stage & Milne, 1996). In the United Kingdom (UK), dyslexia is identified as a specific learning disability under the UK Education Acts of 1981, 1993 and 1996. More recently the term 'dyslexia' has been used to characterise learners who struggle with literacy despite a high intellectual ability (Pollack, 2005). In

Australia, dyslexia has been grouped under general learning disabilities (de Lemos, 2008). Recently, the wider recognition of dyslexia in international literature and in Australasia has led to some recognition that the term learning disabilities may not be reflective of recent research trends. In publications from the United Kingdom there has been a trend back to studying grouped learning disabilities. Richardson (2009), Matthews (2009), and Griffin and Pollack (2009) do not distinguish between disabilities but place the research emphasis on the educational outcomes.

In New Zealand there is no legislative mandate to recognise or support students with dyslexia and students have often been grouped with a wide range of learners who struggle with literacy or reading difficulties. Educational support may have been given through remedial reading or reading recovery programs, based on the assumption that the learner hasn't understood basic reading principles or has lack of experience of reading (Ministry of Education, 2008; Tunmer & Chapman, 2007). In an earlier New Zealand study (Rowan, 2010) four participants expressed frustration at teachers' lack of understanding of dyslexia in placing them in remedial reading programs, when the students already understood the principles but couldn't get them to work. In a survey for the Dyslexia Foundation, teachers with knowledge of dyslexia said they encouraged families to take students with dyslexia to programs outside of the education system (Nielsen Company (The), 2008). Without a clear recognition of dyslexia and understanding of student's learning needs, there has been no obligation by schools to offer support to these learners.

I believe the continued wide-scale use of the terms learning disability, or learning deficit, being applied to all students who struggle with literacy means assumptions about students with dyslexia are likely to remain unchallenged. Of particular concern is the perception that being unable to learn specific literacy based academic skills means a student has lower ability and therefore lower intelligence.

I suggest that research on the transition experience for learners with dyslexia also reflects the discourse held by the writers and researchers in the epistemological assumptions, the research focus, and methodological approach used. The primary approach for seeking participants is through the disability support systems (Garrison-Wade & Lehmann, 2009; Mortimore & Crozier, 2006; Reed, et al., 2009; Riddick, et al., 1999; Stage & Milne, 1996) or declaring a disability at enrolment (Fuller, Healey,

Bradley, & Hall, 2004; Pollack, 2005). These approaches are based on legislative requirements for access to funding for supporting learners in higher education. This presupposes that institutes provide adequate supports; and that students are willing to acknowledge their learning difficulties and register for student support despite known stigma over disabilities (Chanock, 2007; Garrison-Wade & Lehmann, 2009). Collinson and Penkethn (2010) and Carroll and Iles (2006) used a different approach whereby participants in their studies self identified as having dyslexia. One question this survey of the literature has raised in my mind is: whether the discourse of dyslexia used in the research originates from epistemological assumptions or whether the accepted discourse of dyslexia influences the epistemological and theoretical approach and hence data. No clear picture emerged in this brief overview but this is an area that requires further investigation.

Personal Characteristics

Within the literature on learners with dyslexia there is a stronger emphasis on personal characteristics of the student than in more general studies on student transition. Griffin and Pollack (2009) and Matthews (2009) touch briefly on students' confidence in disclosing their learning struggles. Garrison-Wade and Lehman (2009), Griffin and Pollack (2009), and Hunter-Carsch and Herrington (2001) consider how teacher responses to disclosure affect the student's willingness to seek support. Richardson (2009) and Mortimore and Crozier (2006) found that stigma about learning difficulties, labels, and a sense of independence stopped students seeking support and provoked anxiety when asking academic staff for help. Chanock (2005), (2007), Fink (2007) and Hunter (2009) found students were sensitive to perceptions of literacy difficulties and picked courses and careers where other strengths are valued.

Self esteem, motivation and perseverance have been identified as important characteristics. In an early study Riddick, Farmer and Sterling found tertiary students with dyslexia had lower self esteem which they attributed to earlier learning experiences (1997; Riddick, et al., 1999). Clegg Bradley and Smith (2006) also found self esteem an issue, but Burden (Burden, 2008) challenges this view suggesting that broad psychological approaches to self perceptions, identity and measures of self esteem have distorted the relationship between self worth and having dyslexia. Collinson and Penkethn (2010) and Fink (2007) in talking to high achieving academic and professionals with dyslexia found that interest in learning, specialising in strengths

and internal motivation were more important to success rather self esteem. Mortimore and Crozier (2006) and Miller (2002) identify resilience and persistence as characteristics that keep students in learning despite their struggles. Other studies identify that students with dyslexia lack other characteristics expected of learners in tertiary study. Hunter (2009) found students had to be helped to develop independence skills to prepare for tertiary study. Clegg, et al. (2006) and Hadley (2006) found that students need learn how to self advocate, what their strengths and weaknesses were and to understand their physiologic, cognitive and emotional requirements for successful study (Shaywitz, 2003).

Important studies in understanding dyslexia and the transition to university included in the discussion chapter are: Riddick, Farmer and Sterling (1997), Pollack (2005), and Givon and Court (2010). Riddick, Famer and Sterling's social model, mixed methods study of 32 students – 16 with and 16 without dyslexia - in one university in the UK at a time when dyslexia was starting to be recognised, offers a parallel view of the challenges currently facing students in New Zealand. Pollack's more recent interpretive grounded theory study (2005) offers an in-depth observation of the social construction of discourses of dyslexia. It examines the influences these discourses have had on 36 students in four tertiary institutions under legislation which recognises and supports dyslexia. Givon and Court (2010) conducted a longitudinal study in Israel, where dyslexia is recognised in legislation but not provided for, looking at the coping strategies of 20 high school students identified as having learning disabilities. All three studies identify the importance of: early recognition of struggles in learning; appropriate teaching and social support; student personal characteristics in the acceptance of dyslexia; and the role these play in subsequent decision making. These studies were identified as of interest to this exploration of prior experiences of learning with dyslexia in New Zealand.

The international literature is diverse and originates from medical, psychological, educational and sociological disciplines. In New Zealand there is little information on the occurrence of dyslexia or on the experiences of successful students with dyslexia. In a study looking at the experiences of adults with impairments in tertiary education in New Zealand, two participants indicated that they had dyslexia (Sherrard, 2004). In a master of health science thesis, Marshall (2005) recorded the experiences of six teenagers with learning difficulties within the secondary education system, two of

whom identified as dyslexic. Both these studies found that the students at both levels faced considerable barriers as result of lack of institutional and teacher understanding of dyslexia, and that this had impacted on their learning and learning opportunities. This lack of understanding was also seen in the learning experiences of four students with dyslexia within one New Zealand university in a study conducted in 2009 (Rowan, 2010). The institutional level of recognition and support for learning with dyslexia had an impact on student outcomes and attitudes. All of these studies were exploratory, seeking to record experiences of learners within the New Zealand context.

2.6 Conclusion

There is a large body of literature looking at learning disabilities and learning difficulties across a range of countries and educational structures where dyslexia has been recognised, legislated for and financially supported. It is not surprising to find that little information on learners with dyslexia has been found in New Zealand due to the reluctance by policy makers and educational leaders to acknowledge dyslexia. Difficulties arise in comparing the information found in these studies due to the variations in discourses, educational contexts, nature and size of the studies. However, there are key ideas which emerge on the transition of students to higher education that transcend these constraints and the constraints of learning with dyslexia. The next chapter presents the methodological approach and methods used in this research.

CHAPTER THREE

METHODOLOGY AND METHODS

3.1 Introduction

Research within the social sciences is an exploration; an attempt to understand phenomena, the experience of them, and why they exist. How we, as researchers, approach the investigation and interpretation of the phenomena depends on our perspective of reality and how it is constructed (Crotty, 1998). First in this chapter, there is a brief discussion of the epistemological approaches of subjectivism, constructionism and objectivism in research, and of the theoretical perspective of interpretivism used in this study. Second, there is an explanation of grounded theory methodology and the rationale behind the choice of constructivist grounded theory methodology for this research. Following this the research focus, process, methods and ethical considerations are discussed.

3.2 Epistemology

Our worldview and philosophy influences the actions we take and the way we conduct research. The beliefs we have about knowledge, nature and understanding form the foundation for our approach. Ontology asks what is the form and nature of reality and what can we know about it; epistemology asks what is the nature and form of knowledge, how it is acquired or experienced and how is it conveyed to others; methodology asks how can the researcher go about finding out what they believe can be known (Cohen, et al., 2007; Denzin & Lincoln, 2008). Crotty describes ontology and epistemology as sitting together, underlying the theoretical perspective of 'how we know what we know' (1998, p. 8); our understanding of what knowledge is. Crotty (1998) also describes three epistemological approaches to social sciences research - objectivist, constructionist, and subjectivist. By looking at the foundations of our thinking we can determine what sort of theoretical perspective we take in the methodological approach we use in research. In an objectivist approach meaning exists without the need for human minds to process it or recognise its existence. Therefore when seeking to understanding another person's view, the meaning given to something is seen to be extrinsic, external to the individual, and forms objective truth

(Crotty, 1998). Constructionism is based on the belief that a truth, meaning, or interpretation that we hold is the result of our interactions within the world:

All knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social world (Crotty, 1998, p. 4)

People play an active part in the way in which meaning is constructed or developed. As a result, there are many ways of forming knowledge from the same situation or interaction by individuals or groups, in different ways and at the same time. Individual students' backgrounds influence their perception of a learning activity. Set within constructivism, interpretivism sees the meaning we hold or the understanding we make of something, as based on our interactions with the social world (Crotty, 1998). The social values and meaning given are interwoven into our interpretation and understanding. The third approach, subjectivism, is based on the understanding that the meaning that we ascribe to something comes from neither the object nor from our interactions with the object but from elsewhere (Crotty, 1998). This meaning exists externally, internally or unconsciously and makes its way into our thinking.

My epistemological approach for this study is that the discourse of dyslexia, which sees dyslexia as a disability or learning difficulty, is a social construction external to people and imposed on them. The cultures and subcultures surrounding us give us meanings; they are taught and we absorb or learn their meanings as part of our existence, so that they shape our behaviour and thinking (Crotty, 1998). In the USA, UK and Australia dyslexia has been given meaning based on the difficulties a learner with dyslexia has in literacy tasks within educational contexts and is viewed as disadvantageous. In the absence of official recognition of dyslexia in New Zealand until 2007, and the lack of an official or widely recognised definition or understanding; it is expected that individuals may have constructed their own understanding of dyslexia based on their social experiences. The theoretical assumptions I have made are that knowledge of learning with dyslexia in New Zealand education systems and the transition to university are lived experiences and of a personal nature. An interpretivist framework allows me to understand the social reality of learning with dyslexia for a number of individuals.

From an interpretivist perspective if we can let go of our current knowledge and look again at the phenomena we may get a new meaning, clearer understanding, or confirmation of our previous understanding of the phenomena (Crotty, 1998). Even if we can't shed our own understanding we can explore others' understanding. I chose an interpretive methodology because I wanted to understand what it meant for someone to have dyslexia, and what their experience of education in New Zealand had been. I wanted to see if what they had been told about dyslexia or discovered in their earlier learning had influenced their success in secondary school and their decisions to study at university. I wanted to see what influence others' views of their dyslexia had had on their experience of starting university. I believed that situations, pedagogical approaches, social approaches, and others' attitudes to these learners had been important in shaping their views of themselves, their dyslexia, their success, and their place in education.

An interpretive approach also allows for an exploration of the cultural and historical interpretations of the participants' perceptions of their dyslexia, the influences which lead to their decision-making, and their transition to tertiary study. This approach recognized that meaning is made based on individuals' assumptions and perceptions of themselves and situations, and acknowledges that every person's worldview is different, meaning that there are multiple realities (Cohen, et al., 2007; Denzin & Lincoln, 2008). This study is concerned with understanding the ways in which individuals' interpret their world. The questions I asked and the way I analysed these experiences also influenced what is reported. This approach acknowledges that each understanding is unique and particular to the individual and therefore the participant's own words are used to help in describing experiences (Denzin & Lincoln, 2003). I also recognise that commonalities in the educational world may lead to similar experiences and some themes identified may be common across students' stories. The synopsis and themes presented in the findings (Chapter 4) and discussion (Chapter 5) are my interpretation of what the participants said.

Having identified that I wished to take an interpretive approach, the research methodology selected was grounded theory. Grounded theory methodology and methods were used to try to understand the meanings of the students' interpretation of their prior learning experiences and transition experiences.

3.3 Rational for Choice of Constructivist Grounded Theory Methodology

A framework for gathering data and examining the experiences of students with dyslexia needed to be flexible enough to capture individual stories and ideas. It also needed to be rigorous enough to compare individual experiences looking for commonalities and differences. While I have some knowledge, understanding of and views on, the research area I didn't want to go into this research with theory about the participants' experiences already formed but rather wanted to "see" what came out of the data. I wanted a methodology which allowed the students' experiences and voice, or own words, to be heard. A brief introduction to grounded theory methodology and methods using Glaser and Strauss's (1967) approach in a previous study (Rowan, 2010), led me to explore this methodology further looking for developments in the approach.

Grounded Theory

Grounded theory methodology attempts to identify and describe phenomena and their attributes and interactions in an inductive manner, drawing together ideas into explanation of what is happening or has happened within a particular context (Charmaz, 2006, 2009; Glaser & Strauss, 1967; Strauss & Corbin, 1990, 1997). The data gathered is compared and concepts emerge to form mid-range theory linked to that data (Mutch, 2005). Concepts may be generalized to other instances but are firmly linked to the situational nature of the study. Grounded theory produces substantive theory based on relationships determined by coding (Charmaz, 2006; Strauss & Corbin, 1990). Substantive theory is the emergent idea developed out of the categories into which the coded data is grouped and provides a theoretical explanation of a particular phenomenon (Crotty, 1998).

Early ideas of grounded theory suggest that theory is embedded in the data and a close examination would see the theory emerge; that the researcher could remain objective; the researcher could avoid becoming involved with the topic and participants to maintain this neutrality; and that reality could be captured in the data gathered in the research (Glaser, 1998; Strauss & Corbin, 1990, 1997). Subsequent users of grounded theory have tended to rigidly follow the original methods of Glaser and Strauss or the statistical approaches of Strauss and Corbin, which constrained the

usefulness of the tool, or to forgo the disciplined approach to be more flexible in using parts of the methods of data analysis to suit the research question (Morse et al., 2009). Regardless, "every time grounded theory is used, it requires adaptation in particular ways as demanded by the research question, situation, and participants for whom the research is being conducted" (Morse, et al., 2009, p. 14).

It was this adaptation of grounded theory methods, that cut across research disciplines and researcher differences, that led Morse and her colleagues to recognise that Glaser and Strauss's techniques and procedures should be considered as tools not directives and that creativity is a necessary part of making sense of experiences (Corbin, 2009; Stern, 2009). This has resulted in the more general view that "grounded theory is a way of thinking about data – processes of conceptualization – of theorizing from data so that the end result is a theory that the scientist produces from data collected by interviewing and observing everyday life" (Morse, et al., 2009, p. 18).

This shift in philosophical approach addressed a concern I had about the call for researcher objectivity in grounded theory. The research question in this study is subjective - derived from my life and teaching experiences. Corbin (2009) views the researcher's interest as an important part of studying a research topic. Charmaz (2006, 2009) incorporates this subjectivity into her constructivist approach. I hoped to find the right balance to draw out substantive theory in this study by balancing flexibility in the data collection and reporting process, to suit the characteristics of the participants, and to recognise my subjectivity in examining the data.

Constructivist Grounded Theory

Charmaz's constructivist grounded theory incorporates the view that the researcher's subjectivity must be recognised in research. In contrast with the objectivist approach her approach acknowledges and addresses the situated nature of the researcher, the situation, processes and outcomes in developing the theory. The assumptions and aims of the two approaches are presented in Figure 3.1.

Objectivist Grounded Theory Constructivist Grounded Theory 	
Foundational Assumptions	Foundational Assumptions
Assumes external reality.	Assumes multiple realities.
Assume discovery of data.	Assumes mutual construction of data through interaction.
Assumes conceptualizations emerge from data.	Assumes researcher constructs categories.
Views representation of data as unproblematic.	Views representation of data as problematic relativistic, situational, and partial.
Assumes the neutrality, passivity, and authority of the observer.	Assumes the observer's values, priorities, positions, and actions affect views.
Objectives	Objectives
Aims for context-free generalizations	Views generalizations as partial, conditional; situated in time, space, positions, action, and interactions.
Aims for parsimonious, abstract conceptualizations that transcend historical and situational locations.	Aims for interpretive understanding of historically situated data.
Specifies variables.	Specifies range of variables.
Aims to create theory that fits, works, has relevance, and is modifiable (Glaser).	Aims to create theory that has credibility, originality, resonance, and usefulness.
Implications for Data Analysis	Implications for Data Analysis
Views data analysis as an objective process.	Acknowledges subjectivities throughout analysis.
Sees emergent categories as forming the analysis.	Recognizes co-construction of data shapes analysis.
Sees reflexivity as one possible data source.	Engages in Reflexivity.
Gives priority to researcher's analytic categories and voice	Seeks and (re) represents participants' views and voices as integral to the analysis.

Figure 3.1 Comparisons and Contrasts of Grounded Theory (after Charmaz, 2006, p. 141)

In objectivist grounded theory the researcher is seen as neutral. Data collection and analysis provide the basis for making generalised theory, and the researcher's knowledge and analysis shapes the understanding of the topic. Constructivist grounded theory assumes the researcher is integral in designing, conducting and interpreting the study and therefore not neutral. Collected data reflects the understanding of the individual at a particular time and place, and therefore should not be extrapolated beyond the context (Charmaz, 2006). Theory emerges (rather than being generated)

from the study and reflects the particular words, interactions, and understandings of the participants and interviewer. This needs to be considered in the use of findings. Thus Charmaz's approach acknowledges the flexibility of grounded theory as a tool to suit a purpose, the subjectivity of the researcher, and the situated nature of the emergent theory.

My goal in using Charmaz's approach was to locate the participants' views of the phenomenon and their interactions in terms of larger social structures and discourses which they may be aware of. Participants' assumptions about dyslexia and higher education, and their decision making actions may reproduce current social ideologies or power relationships rather than being based on their own understandings (Charmaz, 2006, 2009). Using constructivist grounded theory I wanted to present the person's experience as closely as possible to their reality.

In this section I outlined and discussed the theoretical perspective and methodology that was used in this study – Charmaz's constructivist grounded theory. The next section presents the research focus, process and methods of data collection. Integrated throughout this is the narrative of the threads of my research thinking, decisions and actions that form a part of the research process. Starting with the research focus this section then describes the participants, data gathering tools and processes, ethical considerations and the methods of data analysis used in this study.

3.4 Research Focus

Crotty (1998) points out that our research is normally driven by interest in a topic or area rather than the choice of methodology and theoretical assumptions. He also suggests that after choosing the research area we consider the method and then explore the methodology behind the method. This research was based on my interest in the transition of students from secondary to tertiary teaching environments, and how as educators we can provide opportunity for successful learning outcomes in these environments. The aim of this research was to investigate how prior experiences of learning affect students who learn with dyslexia as they transition to university study in New Zealand. Research questions used to focus this research were:

What are the perceived prior learning experiences of students with dyslexia?

How have these experiences affected these students as they transition to the first year of university study in New Zealand?

What are the implications of these experiences for educators, educational policy makers and institutions?

As the research progressed two other questions of importance emerged from the study:

What expectations do students with dyslexia have of university and study at university?

How does students' discourse of dyslexia affect their decision making and their transition to university?

Ethics approval to do this research was gained through Massey University Human Ethics Committee (Appendix A).

Participants

The participants in this study were university students who self-identified as having dyslexia; three in their first year and one in their fourth year of study at one university in New Zealand. The proposed sample was five to ten students. The nature of the method – intensive interviewing (Charmaz, 2006) - was expected to generate sufficient data to restrict the numbers of participants from a minimum of 5 to a maximum of 10. This would allow for in-depth data collection, transcription and analysis appropriate for a masterate thesis.

Participants were self-selecting individuals who responded to notices advertising the research on campus notice boards in semester 1 and semester 2, 2009. Initially three students responded and were interviewed. I believed that the addition of further participants would produce wider data; and allow for more depth in understanding of experiences. Further participants were sought through advertising on university notice boards in semester 1, 2010, and the scope widened beyond first year students. A fourth student responded. This person's reflections on her first year experiences were recorded and integrated with the data from the three first year participants. With the time restrictions for the research and the amount of information gathered during interviews, four participants were considered sufficient to address the research questions. No further participants were required. The demographic details of the

sample group of four students are shown in Figure 3.2 Participants' Details. All were full time students, had attended secondary schools in New Zealand, and identified as having dyslexia.

Detail	Jack	Claire	George	Jane
Age (years)	19	18	20	22
Secondary school type	Integrated ¹	State	Private ²	Integrated
Age learnt had dyslexia	17	15	7	7
Year of Study at University	First	First	First	Fourth

Figure 3.2 Participants' Details

3.5 Research Process

The study consisted of two sets of data collection and analysis of experiences, and a third brief follow-up on student exam outcomes. Data was gathered using three methods. The first part of the interview involved the collection of participants' verbal responses to the British Dyslexia Association (BDA) checklist. To address the concern that the participants might find reading and writing in front of the researcher difficult, each participant was given the option of having the questions read to them and responses recorded on a digital recorder, or to read and fill in their own form. All chose to have the questions read. Following this, a one hour one-to-one interview with the researcher – that had a broad focus to allow the participant's stories and views to emerge – was held. An outline of the types of questions that might be asked had previously been sent to participants to allow them time to process their understanding of, and responses to, the questions (Appendix B). This was considered important as people with dyslexia are often uncomfortable with being put-on-the spot and struggle to respond to questioning (Mortimore & Crozier, 2006). During the course of the first

¹ Integrated School – A former private school retaining its special character but funded by the state

² Private School – A self funding school registered to provide secondary education

interview I realised that participants needed the opportunity to express themselves in a manner which assisted them to explain their thoughts and recollections. The first interview concluded with participants being asked to think about how they best expressed their ideas and themselves, and how this could be incorporated into the next interview and their answers.

The second part of data collection took the lead from this question focusing on participants' responses in the first interview, and drawing out their answers using their preferred ways of expression (drawing, photography, example and analogy). New open-ended questions were formed based on reading transcripts of participants' first interview to explore the ideas raised. Responses to these new questions took longer as the participants had not previewed these questions but brought more depth to the study. Participants explained their experiences using their preferred means of expression. These responses were then analysed.

A third set of data collection followed up on student's experience of the final exam period and their reaction to their final grades. Students were contacted by text and email, and asked to briefly respond by email with their thoughts to questions about their studies. This occurred at the end of semester 2, 2009 for the first three participants and in semester 2, 2010, for the fourth participant.

3.6 Research Tools

The flexibility of grounded theory methods and qualitative approaches allows the researcher to follow up on thoughts as they occur and to introduce other methods of data collection in response. Charmaz describes this as like using a camera to take a broad view of a landscape and then changing lens – drawing the focus in – to look at different parts in different levels of detail (2006). It is not only the data collection tools but the way in which they are used that determines which phenomena are seen. Therefore adaption to suit the research situation can occur, however this can also limit the transferability of the methods and data collected within and between studies.

Data was gathered in this study using a variety of techniques to provide depth and triangulation. Triangulation is used to verify that interpretations and meaning given to data are found in more than one source. It brings richness and complexity to the data to build knowledge rather than just confirming findings from a single source. It

removes the reliance, associated bias, and limitations of one method to provide all the information (Cohen, et al., 2007; Denzin & Lincoln, 2003). Theory triangulation, looking at other studies and theory, was used as a another source of data in the discussion chapter (chapter 5) (Cohen, et al., 2007; Denzin & Lincoln, 2003). The findings from other studies of the experiences of learners with dyslexia helped to provide a broader understanding of the influences of discourse on the experiences of the participants in this study.

Questionnaire

The British Dyslexia Association (BDA) checklist was used (Appendix C) to provide an indication of the characteristics of dyslexia that may cause the participants' difficulties in general living. The BDA checklist is a questionnaire. Questionnaires can provide a means to seek specific information and forms of responses to a set number of questions (Cohen, et al., 2007). The BDA checklist has twenty closed questions about difficulties commonly experienced by people with dyslexia. Closed questions mean that respondents have the choice of specific answers, in this case 'yes' or 'no'. In trials conducted by the British Dyslexia Association 90% of people using the questionnaire responded 'yes' to fewer than eight of the questions and those with dyslexia said 'yes' to a higher number of the questions (British Dyslexia Association, 2006). While the test is used to give an indicator of the likelihood of dyslexia, it is not a diagnostic tool. Using the BDA checklist allowed for identification of tasks that participants reported as causing difficulties and provided a means of data triangulation with data found from the interviews.

Interviews

Charmaz (2006) defines an interview as a 'directed conversation', an in-depth exploration of the area of interest, between two people one of whom has the experiences. The purpose of an intensive interview in grounded theory is to draw out the participant's understanding of these experiences. The role of the interviewer is to listen and encourage the participant to respond so that the participant does the majority of the talking. The use of semi-structured interviews fits within the nature of this type of interview; allowing particular topics to be explored but with the flexibility to move beyond the initial question based on the participant's responses – to ask for more details, to restate what has been said in a different way to check for accuracy, to

move in a different direction, or to come back to something said earlier (Charmaz, 2006).

Interviews allow participants to discuss in depth their understanding of their world (Charmaz, 2006), and to explain how they view their interactions and experiences of situations. Interviews, being verbal, offer more flexibility in the order of questioning and opportunity to follow-up on responses than written surveys. They can be used to explore deep and complex issues (Cohen, Manion, & Morrison, 2000). However they can also take time to set up and conduct. Interviewer bias, participant and interviewer tiredness, and maintenance of anonymity are all problems that can be encountered (Cohen, et al., 2007; Denzin & Lincoln, 2003; Wiersma, 2000). Participant tiredness needed to be considered for this study as focused thinking and speaking have been recognised as stressful for some people with dyslexia (Cottrell, 2003; Mortimore & Crozier, 2006). A maximum time limit of one hour for each interview was used and the participants given the opportunity to stop the interview at any stage though none asked for this.

All interviews are for a specific purpose and therefore constructed rather than occurring naturally. The question was what sort of interview would be used – structured, semi-structured or unstructured (Cohen, et al., 2007; Flick, 2002). Structured interviews allow for easy comparison of participant's data. All participants are asked the same questions, in the same order and manner. This method is time efficient but can limit the relevance of the information gathered to answer the research questions. Semi-structured, or intensive, interviews usually cover topics or issues, specified in advance, in an outlined form (Charmaz, 2006). This provides the interviewer with a sequence but allows for diversions to follow up leads and to fill in gaps. Topics may be missed, but can be covered in subsequent interviews and there may be some variability in the phrasing of the questions and order. This limits the usefulness of the responses if the researcher proposes to compare data between participants. Unstructured or informal interviews can gather a great deal of depth about topics and are often wide-ranging, building on ideas as they emerge during the interview (Cohen, et al., 2007). This can make the data complex and difficult to analyse. Questions important to the research may be missed if they don't come up in the course of the conversation.

For this study intensive interviews were chosen as my understanding of dyslexia is that given the option of talking or writing, individuals with dyslexia would prefer to talk. By removing one of the barriers – putting thoughts into words and then into writing – I hoped to be able to collect in-depth information and the participant's own words and emotions. Semi-structured interview formats were chosen as these were considered flexible enough for participants to explain in depth but also to cover the range of topics that were the broad focus of the research. A second interview with each participant would allow for theoretical sampling of ideas found in coding and forming categories from the data in the first interview to be followed up or clarified (Charmaz, 2006). Theoretical sampling in constructivist grounded research is the process of moving between data collection and analysis including the use of memo-writing. These methods of data analysis are discussed later in this chapter.

Data Recording and Transcription

The use of participant's own words or voice is an important part of gathering their understanding of experiences. Within constructivist grounded theory, the tool to record data is not as important as capturing the participant's words. A digital sound recorder was used as the preferred method to record the conversations of the one-to-one interviews so that the interviewer could focus on the participant and the conversation, and have an accurate record of the intensive interview (Cohen, et al., 2007). Note-taking during the interview would be distracting to both the participant and researcher, and would not provide an accurate record of the words and expressions used by participants. I also believed that the participant would feel more valued if the interviewer concentrated on listening to their conversation. A high accuracy word-for-word transcription of the interviews was required. Use of the digital recorder also enabled the transcriber to maintain word accuracy with the original recording. A video recording would have collected visual cues such as body language (Cohen, et al., 2007) but has limitations of being intrusive, time consuming to transcribe, more reliant on the researcher's interpretation of body language, and more difficult to protect participant's privacy.

Reflections on the Data Gathering Process of Interviews

The first interview was conducted on September 14 2009. Claire, the interviewee, was a first year Bachelor of Arts student. The initial interview questions (Appendix B) were used. During the interview Claire expressed her love of art and I invited Claire to

reproduce her experiences of learning with dyslexia in art form. The second interview focused on expanding or clarifying ideas presented in Claire's initial interview and her drawing.

Feedback from Claire in the first interview showed that using the BDA checklist as a tool to illicit a 'yes' or 'no' response was inadequate as the questions asked were situation dependent. Instead, Claire wanted to discuss circumstances and the coping strategies employed. I considered it important and respectful to let the participant speak freely rather than moving onto the next question. This took a lot of the arranged interview time but provided a wealth of information that was elaborated on in the semi-structured interview and contributed to answering the research questions. The three remaining participants were invited to explain their responses to the BDA checklist as fully as they wanted to in their first interviews.

Another factor that I had under-estimated was the time taken for participants to process each question and the level of emotion expended by the participant in telling their story. I had to hold back from moving too quickly in response to silence. Responses were slow as participants sought to make meaning of the question and to find words to express their ideas. Emotion was demonstrated as tears, anger, laughter, and joking. Some of these emotions were captured on the audio recorder and while I realised they would be useful at a later stage, the focus was on re-settling the participant. This experience revealed the level of commitment participants had in telling their story and impacted on my understanding of the intensity of the experience for both the participant and myself as the researcher.

Finally, in each interview there was a period after the audio recorder was switched off in which participants would speak more freely as thoughts came to them as they prepared to leave. I captured these in writing, immediately confirmed with participants that these were the thoughts that they expressed. These notes were incorporated into the findings.

3.7 Method of Data Analysis

Data analysis within constructivist grounded theory acknowledges that the researcher's and participants' subjectivity is present throughout the data collection and analysis. The information that participants bring to and choose to share through the research is

both selective and intrinsic to their experience (Charmaz, 2006, 2009). Together the researcher and participant shape the data analysis. Rather than simplifying the information to a number of variables the aim of analysis is to include the context; thus deepening the level of discovery (Cohen, et al., 2007; Flick, 2002). I acknowledge that this thesis presents one interpretation of the data.

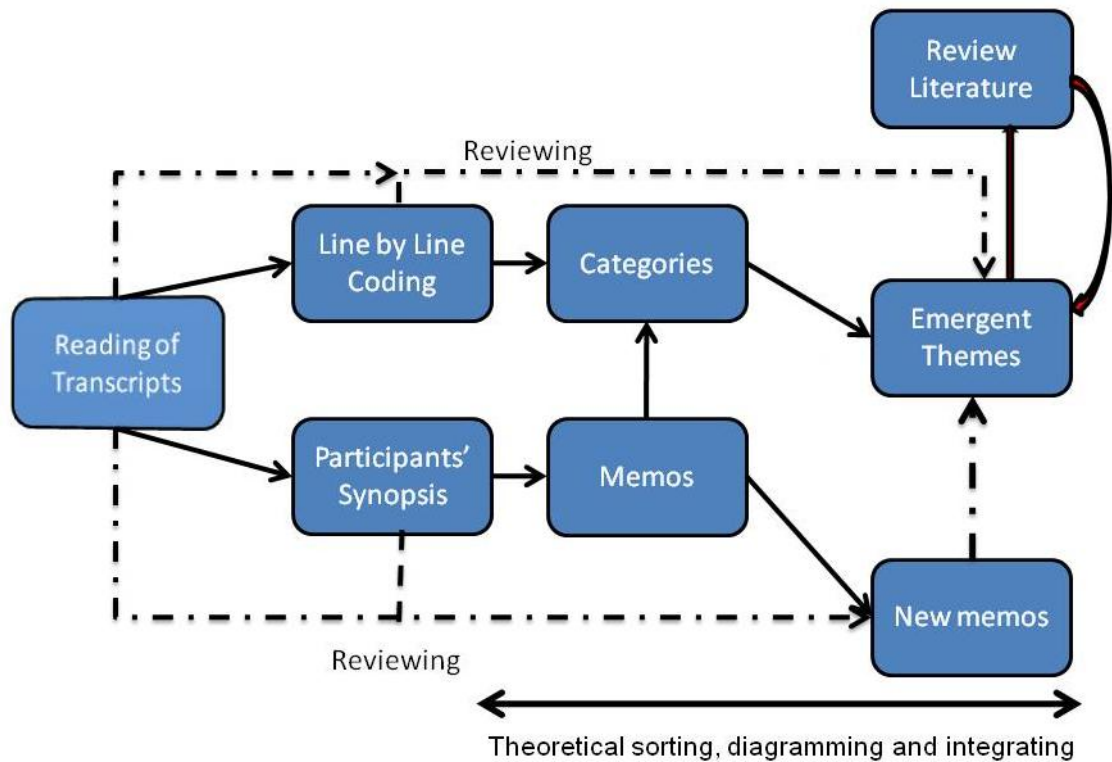


Figure 3.3 The Processes Involved in Reading Transcripts, Coding, Identifying Categories, and Themes.

Coding

Coding is the bridge between collecting the data and developing emerging themes to explain the participants experience (Figure 3.3). Through coding the researcher reads the data transcripts to see what is happening and to interpret meaning (Charmaz, 2006). Charmaz identifies that initial coding asks four main questions – What is the data a study of? What does the data suggest? Whose point of view is being expressed? And what theoretical category does this suggest? (2006, p. 47). Initial codes are provisional, taken from the participant's words and help stop the researcher imposing their motives and personal issues onto participants and data. Line by line coding gives details of people, actions, and their settings. By looking for assumptions, actions and events, changes in thinking and using the participant's own language, the codes identified help to flag significant meanings (Charmaz, 2006). In grounded theory these

codes may be common terms which have a widely accepted meaning, new terms generated by the participants, or terms which reflect the ideas of a particular group.

A break occurred between coding the first participant's interview and further interviews due to interview schedules and the time taken for transcription. A review of the literature on coding in constructivist grounded theory was made during this time. I identified some problems with the coding. I felt that I may have imposed my ideas and preconceptions onto the data making the coding too general, rather than using participant's words, and identifying topics rather than actions and process (Charmaz, 2006). This made me aware that I may have interpreted the first participant's words rather than using their words and ideas. As a result, the transcript was re-read and re-coded using the participant's own words. This process demonstrated how important it was to focus on the content.

The next stage was focused coding (Charmaz, 2006). In this process I looked at the codes found earlier and made decisions about which ideas would be used in categorizing the data to encompass the majority of the data. The flow of thinking and analysis moved between the early codes, the interview transcripts and the research questions (Figure 3.3). Unexpected ideas emerge as codes are compared, and as memos are read (Charmaz, 2006).

Following line-by-line coding I grouped the codes into categories (Figure 3.4). The categories are not considered mutually exclusive. For example, a discussion may reveal cognitive affects of dyslexia e.g. reading without understanding, but may incorporate an explanation of how the student now works around this – their strategy in learning (Appendix D). The categories were compared with the research questions and two further research questions were framed. Emerging categories are the result of the use of constant comparison where the researcher compares the data being worked with the existing grouping to ensure that all the coded data fits within categories (Charmaz, 2006; Cohen, et al., 2007).

Categories derived from grouping line-by-line codes
1. Cognitive affects of dyslexia
2. Personal awareness of dyslexia & strategies used in learning
3. Personal characteristics & emotional effects.
4. Discourse
5. Prior learning experience
6. Decision making
7. Expectations of university
8. Transition Experience

Figure 3.4 Categories Derived from Grouping the Line-by-Line Codes

Memos are researcher thoughts written down as the data is reviewed. The process of memo writing comes from asking questions of the data and means the researcher is immersed in the data rather than outside. This raises the level of cognition in the researcher's analysis of ideas. The purpose of memos is to help connect the researcher with the reality of the participants' social environments (Lempert, 2007). In this process memos allow my voice and expertise to come through to formulate ideas, to expand and explore the data. Early Glaser and Strauss (1967) and Strauss and Corbin's (1990,1997) methods assumed that the researcher was neutral; Charmaz (2006) and Stern (2009) identify that memoing acknowledges the positionality of the researcher.

Emergent Themes Using Grounded Theory

Themes emerge from data as participants' coded ideas are grouped into categories; categories are refined and described. Themes are the result of reiterations of looking at categories, codes and memos. Charmaz (2006) describes this as the process of theoretical sorting, diagramming and integrating. Theoretical sorting is the comparison of categories at an abstract level as a way to understand and organise the ideas or significant events. Diagramming is the visual representation of categories and relationships between these. Finally, integration of memos occurs as emerging themes are drafted in writing up. To help ensure that the themes are derived from the participant's understandings of their experiences reference is made back to the transcripts and previous memos (Charmaz, 2006; Stern, 2009). Key participant phrases are identified that bring substance to the themes.

The relationship between categories and emerging themes is presented in Figure 3.5. The categories are explained in the findings chapter 4. They are my interpretation of the ideas presented by the first three participants and then with the integration of the experiences of the fourth participant – Jane. The categories, although depicted separately, need not be independent. For example, students’ successes and failures (prior learning experience) mean they may have developed personal learning strategies on their understanding (discourse) of dyslexia. This influences their decision making as they recognise that they have become independent learners (emerging theme) to succeed.

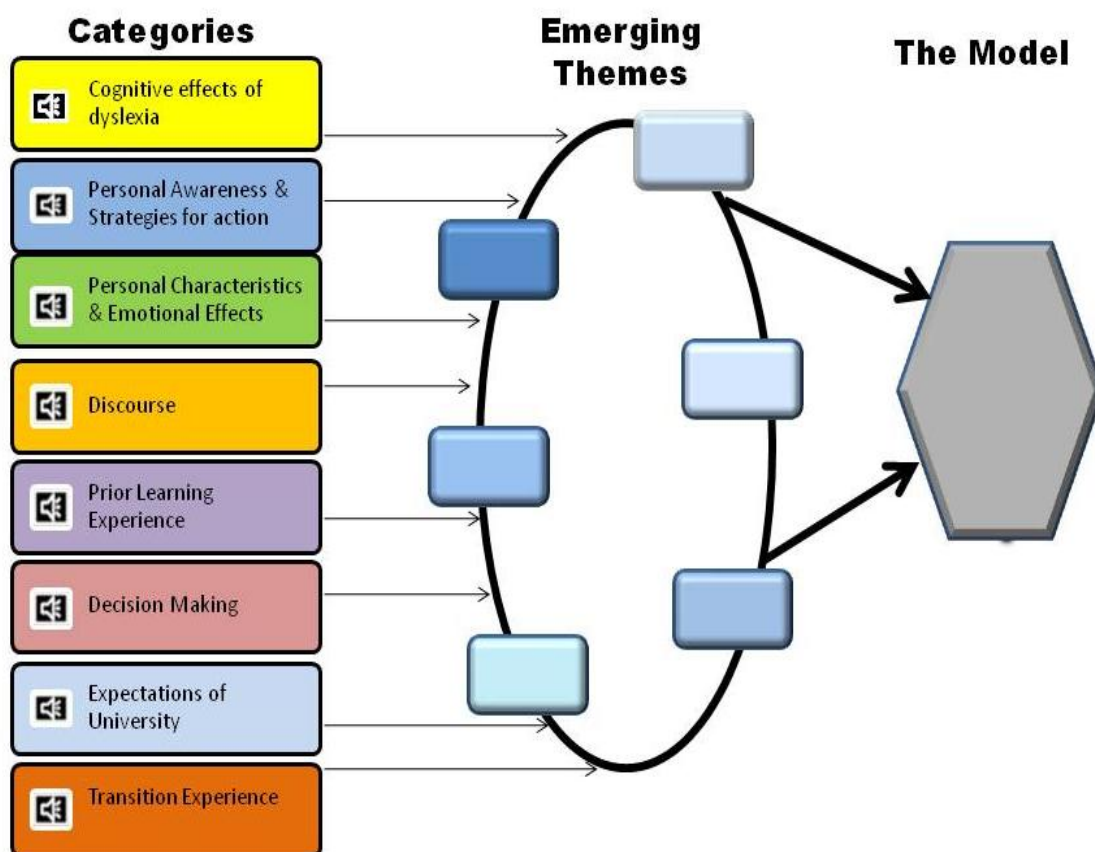


Figure 3.5 Relationship between Emerging Themes, Categories and the Model

While reworking the emerging themes and incorporating the literature into the discussion it became apparent that another level of re-iteration was needed to re-connect to the main research question. This resulted in the refinement of the emerging themes into themes identified in the model indicated in Figure 3.5 and explained in the discussion chapter 5.

Limitations of Method

Participant's non-verbal expressions made in the interviews are not reflected in the transcript and could have serious limitations on the usefulness of the data. Claire exhibited high levels of emotional stress – tears, anxiety and embarrassment. Jack's body language suggested cool and relaxed but the nervousness displayed in his inquisitiveness suggested otherwise. George's posture was confident and strong, but body language changed when he was unsure of the response he wanted to give. Jane's infectious laughter could be captured on the recording but not her strong use of hand gestures to emphasise points as she made them. I noticed that for all participants facial expressions changed as they prepared to speak about an event that had been difficult or puzzling. These non-verbal expressions are not included.

The number of participants - four - is small but provided a wealth of information for a study of this nature. All participants appeared to speak freely and wanted to explain their experiences in depth. Further interviews could have taken place to explore ideas or look at the experiences of other people, if the study had been expanded further. I made a decision to stop the study at four participants based on the time constraints, volume of data gathered, and depth of information revealed in analysis.

Overall the methods used in this study proved very effective in providing a wealth of information and depth. The tools were easy to implement. I found the challenges of coding and memoing required a deeper exploration of the wording and descriptions used by participants. Clear themes emerged. Comparison of participant's transcripts showed that there were commonalities and distinctions in experiences. The flexibility in data collection allowed me to adapt the tools to the context of the research but limit the use of this data to this study. In the next section I discuss the ethical concerns addressed in this research.

3.8 Ethical Considerations

Ethical considerations in educational research take into account the effects of the research on participants, ensuring that the researcher addresses participants' rights to full information on the nature and context of the study and any effects it may have on them. This means the researcher must address issues of harm and benefit (Cohen, et al., 2007). Participants in this study needed to be made aware that they may experience some emotion talking about experiences, however the goal of the research

was not to harm them in any way but to contribute to improved understanding of learning with dyslexia and transition into the first year at university. I asked permission of participants for the findings of the study to be used in further publications and conference presentations. All the participants acknowledged and supported the opportunity the research offered to increase awareness and understanding of learning with dyslexia within the New Zealand context.

Special Nature of Participants and Informed Consent

Characteristics of a broad range of students with dyslexia and the general lack of recognition and understanding of dyslexia in New Zealand indicated that special consideration needed to be given in each phase of the study. I could not assume that there would be a common knowledge of dyslexia, that students would have undergone some forms of diagnostic tests for dyslexia, or that all would have had the same characteristics or experiences. In the first instance all advertising material and information sheets were free of clutter and complicated wording to allow for ease of reading.

Informed consent means providing information on the purpose of the study, data collection process, methods and presentation, and participant's rights. Potential participants were given an Information Sheet (Appendix E) outlining the project and what would be required of them should they agree to participate. They were invited to discuss any issues with me if they wanted to. On agreeing to join the study participants were required to sign the Informed Consent Form (Appendix F). This was sent to them prior to the first interview for reading at their own pace. At the first interview I read this form to them, explained the project, and the participant signed the form. Prior to the first interview participants were provided with a list of possible questions to read at their own pace (Appendix B).

Privacy and Confidentiality

To protect the identity of the participants, the university and students course details have not been named. Participants chose a pseudonym from a list provided at the first interview; this was used in all information gathering, transcribing, analysis, and reporting. The pseudonym is known only to the student and the researcher. Communications with the participants do not link the pseudonym and known name.

Potential Harm to Participants

Participants were reassured that the study was not intended to harm them by evaluating or judging them in any way but that they may experience emotional discomfort when reflecting on prior experiences. The counselling support available, should they require it, was explained. I was aware of the sensitivity of the experiences being discussed and during the interviews offered opportunity for pauses as needed. Participants were treated with respect at all times from initial contact through the data gathering process, in the writing up and in all other communication.

Participants had the right to decline to participate in the study as well as the right to withdraw from the study until the commencement of the interviews. They were given the opportunity during the interviews to not answer a question or to ask for the recorder to be turned off at any time. Transcripts of interviews were made available for participants to read and correct. Participants were also given the opportunity to comment on the findings from the study.

Ethical Approval

Full consent to conduct this study was sought and permission granted by The Massey University Human Ethics Committee, Southern B Committee (Application 0930) (Appendix A).

3.9 Conclusion

In this chapter I have outlined the epistemological and methodological position which ground this research. The method chosen and the manner in which it was employed have been discussed. Limitations to the approaches and ethical considerations taken have also been identified. In the next chapter – the findings - the data collected and analysed using these methods is presented.

CHAPTER FOUR

FINDINGS

4.1 Introduction

This chapter presents the findings of this study that come from the participants' learning experiences and my experiences during the research.

Grounded theory writing preserves and presents the form and content of the analytic work. Rather than spotlighting actors or authors, grounded theory places ideas and analytic frameworks on center stage...The potential strength of grounded theory lies in its analytic power to theorize how meanings, actions, and social structures are constructed. (Charmaz, 2006, p. 151)

Converse to Charmaz's statement above I believe an understanding of the participant's contexts of learning is important in understanding the categories that emerged. This section gives a synopsis of all four students' learning experiences before presenting the categories that emerged from the reading and coding of the transcripts. Findings from Jane's experiences of first year are interwoven with the experiences of the other students at the end of each section to see if they support or differ from these categories. I thought that Jane's reflections may have been filtered by other more recent experiences and maturity.

4.2 Four Distinctly Different Learning Experiences

All four participants had distinctly different experiences of discovery of dyslexia, learning with dyslexia, course planning and transition to university. For this reason a synopsis of each participant's experience is outlined in this section.

Jack's Synopsis

For Jack the discovery, in his final years of high school, that many of his struggles with learning were listed on the internet as affective characteristics of dyslexia brought relief. He felt that at last, through his self diagnosis, he had an answer as to why he couldn't do some things in education (particularly in English and maths) which others found so easy.

It's just certain things I can't do that other people can do. Well, things like spelling, handwriting, simple things. And sometimes it's just confusion. (Interview 1, p.4)

Prior learning had been an emotional roller coaster for him as a person who loved to learn, but was so frustrated with some learning situations that they brought on anxiety attacks. Jack's mother, an early childhood teacher, recognised the signs of difficulties in learning early in Jack's childhood but elected not to tell Jack of her observations. Jack believes that she felt dyslexia could be overcome by hard work and didn't want him to use it as an excuse for not achieving.

She didn't want me to ...use it as an excuse...it's not an excuse if you do something wrong. (Interview 1, p.4)

Jack realised that the struggles he had were different from the other students in his classes, they had affected the opportunities he had had and let him wonder what 'if'.

Always like to think what would have I been like if I had had better spelling and grammar. Being able to put down my ideas more easily on paper. (Interview 2, p.1)

Jack identified the support of a particular teacher, who helped him with the study techniques to pass crucial exams in year 13 and to develop his self belief, as key to his decision to continue on to tertiary study. Surrounded by a supportive family, good teachers and teaching, and careful selection of the course options available at his small integrated school, Jack passed the NCEA examinations to allow entrance to university.

Jack describes himself as a quiet person who likes to joke, learn, loves history and geography, maps and diagrams. Being an independent, diligent and resourceful student he likes to use examples to understand information and will explore the internet, watch videos, visit museums and read non-fiction books to expand his knowledge. The decision to study at university was not undertaken lightly. Jack's parents, neither of whom had tertiary experience, felt that Jack should consider a polytechnic course.

Mum and Dad often talked about whether it would be good if I maybe just stayed in [town] ... 'cause we've got the [polytechnic] and it's only down the road from where I live... and I kind of thought no I probably should go to university. (Interview 1, p.7)

Jack's older siblings felt that if he worked hard at university he would be fine and set about helping him select a degree course.

...he told me as long as you persevere you can get through. (Interview 1, p.7)

Based on the information provided in course guidelines and from the university course advisers Jack and his family believed his background subjects would enable him to do an [xxxxx] management course.

And she [sister] did ring up the university and go through the papers I was doing and ask them you know 'how hard would it be for me?'. (Interview 1, p.7)

Jack struggled in the first semester. Where he had understood the course would build on his previous subjects he found that he didn't have the science knowledge base required and failed the exams. In the next semester he chose to change course and return to the subjects he loves. He sees this experience as being a

...costly decision but I think I made the best one, and I enjoy it a lot better. (Interview 1, p.8)

Jack's motivation for taking part in this study was to find out more about dyslexia and what support he could get at university. He was unaware of any services provided by the university, where to go for help, or the type of support that could be provided.

I would like to enquire about special help in exams, but I'm not sure how to do that or who to see or what...extra time for it. Mum has tried to tell me to do it, but I'm not sure where to go. (Interview 1, p.7)

The study techniques he had developed in school, essay preparation and the learning support of his teachers had prepared him well, but Jack felt that after his experiences in semester one he needed more. A change produced by participation in the research was that he now feels that he has a right to approach his lecturers

I've been told by my mum that they're almost your employees, like you've got to invest and you pay for everything, you're entitled to a bit of help. So if I do need some help it's within my right to go and get some. (Interview 1, p.9)

George's Synopsis

George has a family history of dyslexia. He views his mother and sister as being 'very dyslexic'. George's mother noticed him and his sister struggling with reading and writing in primary school and that teachers reported their progress was below

expectations for age. George's grandmother, a trained Speld³ teacher, did some exploratory tests which indicated dyslexia might be a problem. After further testing with an educational psychologist dyslexia and Irlen Syndrome were identified as causing difficulties in learning. George wears Irlen glasses which makes reading and writing on white backgrounds more discernable.

For secondary schooling George attended a private boarding school where classes were small and special provisions and specialist teachers were used to assist students with learning difficulties.

They already had a learning difficulties unit... In fourth form I was fulltime...I went to this class with others in the same sort of position as me and they went through ways, started from the basics of everything and built it up and that helped a lot. In exam techniques and so on, and they got the people in to like test you for NCEA for extra time and readers/writers, and whatever else you needed. (Interview 1, p.4)

George recognises that his parents made available every opportunity within their means to provide for his special learning requirements and to help him succeed. Despite having a competitive nature George found that in Year 11 he 'lost focus' when dealing with English, deciding to 'put it in the too hard basket and tried to cruise my way through it'. George identified that a teacher intervened who 'put a lot of faith in me' and a second teacher who was 'very good and often gave me a kick up the butt when I needed it'. The teacher's respect and understanding of George in turn restored George's faith in himself. Overall, George enjoyed his education, the commitment of his teachers and the challenges and opportunities for improvement. A confident, positive and mature person, his perspective of failure and success helped him in his sporting life as well as learning.

I knew if I aimed high what I could achieve and what the feeling was like when I achieved and I think that's really important because I think a lot of people in my situation don't get that and so they feel like they 'well there's no point, because I just can't' when actually [if] they just work really hard then they can and they feel that success and they want to do it again. (Interview 2, p.1)

³ Speld – Speld nz is a not for profit organisation that provides information, assessment and tuition to individuals with dyslexia and other specific learning disabilities.

He achieved excellence grades in NCEA and elected to take a gap year. He had a role as an administrator and coaching assistant in a private school overseas, and so has experienced some of the roles of a teacher.

Over the period of his secondary schooling George developed a good relationship with his careers advisor and courses suiting his interests, abilities and background were recommended each year.

We had a careers advisor at school and I just went to him in the third form and I still go to him... he gives a really big questionnaire... He didn't just say well this is bio-technology, this is where you go and do this; he said you can look at this and at other similar things... (Interview 1, p.7)

George discussed his university options with this adviser in considering universities, degree and course options. He sees that he received highly accurate and valuable advice.

...he affected my career choices but I wouldn't say he made my careers choices for me, he just put out options for me and it was someone I could discuss it with. He was someone with expertise in the area. (Interview 1, p.8)

George wrote on his university enrolment form that he had dyslexia and expected this information would be circulated to appropriate teaching staff. He worked hard, sacrificing first year social and sporting activities and achieved excellent results in both semesters of his first year.

Georges' motivation for taking part in the study was to increase the awareness and understanding of dyslexia, and demonstrate how widespread it is in the population. He sees current perspectives on dyslexia as changeable and needing change until dyslexia is an accepted part of our world.

I think it's something like dyslexia, at the moment; we are probably where animal welfare was 20 years ago. Not many people know much about it and I think it's something to do with awareness - really important. (Interview 2, p.3)

He understands how dyslexia affects his learning and sees his dyslexia as an integral part of who he is.

It's certainly something that is never, for me personally, is sitting right there not point blank in front of me. But it's something that is there, but more in the back of the mind in a way... you don't think about it as much. But it's something you have to deal with on a day to day basis. It's something that I

would never, ever, make people feel sorry for me about it. If someone got better than me in an exam or paper, I would never say but I've got dyslexia I should have got another 10%. It's just something I have to deal with; it's part of who I am. (Interview 1, p.8)

George presented himself as having developed confidence in his abilities, being self assured in his educational path, having pride in his achievements and a strategy for developing a positive self by working through his doubts and accepting dyslexia as 'part of who I am'.

I realise that I have to put in more work but that is part of life. (Interview 1, p.5)

Despite this apparent confidence George describes himself as introverted but persistent and competitive. In explaining his ideas George frequently draws on illustrations. In explaining the difficulties of studying with dyslexia he says

I think it's also a habit as well, the more you deal with it the more you train your brain. It's like I mean you can't run a marathon unless you train for it... (Interview 2, p.1)

George described his approaches to learning as: being competitive, facing challenges and problems, and being adaptive and diligent.

Claire's Synopsis

Claire remembers always feeling different from her fellow learners in school and getting in trouble for not doing tasks in the accepted manner. Her mother - a teacher - could see that the way Claire processed information and her reverse writing were 'not right'. She approached Claire's teachers only to be told that there was nothing wrong. At age seven Claire was tested by an educational psychologist and has only vague recollections of the visit. She doesn't remember any discussion about what dyslexia was and how she might be helped. Growing up she continued to feel that she was different but not why.

I can't actually remember being told. And so growing up I knew there was something wrong with me but didn't really know what it was and I think my mum just thought I knew, so she didn't really talk to me or anything about it. And then, halfway through high school she was talking to my sister and she said something about when I got diagnosed with dyslexia. And I was like, wait, wait, what? And I'm like what's dyslexia? And do I have dyslexia? And what is it? (Interview 1, p.5)

Claire found learning difficult and the remarks of teachers cutting.

I used to hate it when teachers would mark in front of me – you would go up and give them your work and they'd sit there; you'd have to stand there and wait for them, and they'd circle stuff. You'd think 'oh my god, this is embarrassing I should know how to spell, I'm at high school'. you think you've done a good [piece of work] then it's like 'no its wrong, you've got to do it this way!' ... and this time and effort is wasted. (Claire Interview 1, p.6)

Claire attended state schools and isn't aware of any of her teachers knowing she had dyslexia or offering additional support. The emotions of frustration and tears punctuated our conversation as she recalled those around her not understanding her struggles; that she would be doing her best only to be told it was 'wrong'. These comments affected Claire's attitude towards learning and Claire gave in, losing motivation to learn. In Year 11 compulsory science and mathematics classes, in which she had no interest in, Claire gave up, skipping classes or sitting in the back of the classroom to day dream. What changed this was finding out she was dyslexic and being made aware of the characteristics of dyslexia. Attending a seminar on dyslexia two years ago Claire heard the speaker identify different teaching methods that work for dyslexic learners; she identified herself in the content.

...he was dyslexic, the guy that was talking about it, and he was talking about ways of teaching kids with dyslexia and everything, and like I understood and I related to a lot of things he was saying and everything. (Interview 1, p.10)

Claire thinks in pictures, diagrams and colour. Despite her dyslexia she is an avid reader and writer, preferring the creative expression of words and the worlds created by words. She is an artist and between interviews produced a drawing of her expression of what it feels like to learn with dyslexia (Frontispiece – "It's Not All Black and White"). She sees dyslexia as a difference; a difference more acceptable in cultures where people are not judged on their written literacy. Her drawing depicts a person in black, the conflicting words racing in their head; words spoken by teachers and others, and the world they know as their own.

Basically, it's a person in black, like without a face, because it can be anyone... and well this colour around here ... represents the outside world and the knowledge and everything ... in here is just a kind of jumbled mess of how a dyslexic is trying to kind of process it all, understand it, learn it and everything.

So it goes kind of everywhere and there is [sic] pictures because you know we think in pictures and colour, and there's a couple of letters but they're around the wrong way.

Then around here you can kind of see the speech bubbles... it's kinda all people talking and saying 'it's wrong' and 'no' and 'do it again' and 'maybe you're not listening'. Stuff that you hear quite a lot. This leads the person to kind of think that they're stupid, dumb, and different, and all that kind of thing, and that adds into the confusion of all this.

Then I put this in this middle - it's not all black and white - down here because people just kind of see it [that way]. They say you are learning it wrong. That's not how you learn, and you learn it this way. But with dyslexics you don't, you learn with colour and pictures, and you're like different to other people so yeah... (Interview 2, p.1-2)

The expectation within Claire's family was that she would go to university and take a career directed course. Her father's extended family had all attended university so there was pressure for her to do the same.

Well my dad's side definitely it was all like 'you are going to university'. That was their expectation ... go to university and get a good career or a high paying job... so there's always been an expectation. (Interview 2, p.2)

Her mother wanted Claire to go to university if she wanted to but was more concerned that Claire should be happy in the choices she made. Claire felt compelled to take a career focused course and discovered that the skills she had developed in secondary school worked at university; she achieved passing grades in her first semester. However, she didn't enjoy these courses and decided to drop them to take subjects that she was interested in. Claire's next step in independence in decision making was telling her parents about the subject changes she had made.

Jane's Synopsis

Jane is a fourth year bachelor with honours student who joined the study to help spread the word about dyslexia. In her courses she has seen other students, with dyslexia-like characteristics, drop out of education because they haven't understood their learning styles and difficulties, and haven't been supported in their education. In

her work and hobby as a gymnastics coach she sees children with dyslexia-like characteristics struggling to remember routines and talking of the struggles they have in school. She supports and encourages these students.

Having dyslexia is just a part of Jane's life. Jane lives and breathes dyslexia due to her picture memory, meaning that her mind is constantly visualising where to go; how information relates, and what she has to do, from the memory bank of maps, lists and diagrams she holds in her mind. When she first moved to a new city and university she struggled with sensory overload from memorising mental maps of where she lived, how to get the university, the campus layout, her timetables and general living information.

It's like google maps, but it's in my head, it takes a long time, you get so tired.
(Interview 1, p.3)

To be able to settle and sleep at nights Jane writes in her diary. Unloading all the mass of information streaming around her head

Cause there's always so much thinking in dyslexia and processing, so to get rid of it I write in my diary. I used to go to bed and like see movies in my head of everything. I'd be so wired. I'd try to go to sleep thinking – I know that happened today! I know I have to do that tomorrow! ... [Now] In bed I just write it down, never re-read them; any book and just write it down... to get it out of my head so I could go to sleep. (Interview 1, p.6)

She finds having dyslexia frustrating but something you

adapt to and learn to live with. When I was little I wanted a pill to get rid of it but now I just live with it. (Interview 1, p.3)

Adapting means that she uses her visualisation and creativity to good effect in her university courses, and in teaching gymnastics to children.

Jane and her family discovered she had dyslexia when she was seven. Her ballet teacher noticed that Jane was doing all the actions and exercises backwards; having had experience with Speld she asked that Jane's parents have Jane checked. Jane was tested by an educational psychologist and went on to have tuition in phonics using clay to shape letters. She says the tutor's goal was that

she set out for us to believe that we could do it... cause we had to learn it all ourselves and learn everything by heart. It was her intention that we could do everything ... everything we did was a little thing which we built onto the next

thing. So I did Speld for two or three years and went onto Ron Davis [Dyslexia Correction Program] after that. (Interview 1, p.3)

Jane and her parents chose a smaller integrated school for secondary school 'an excellent school' where Jane found in her cohort of 60 students in the seventh form there were five students with dyslexia and one with dyspraxia and dyslexia. Despite having one English teacher who 'thought dyslexia was made up and you were just dumb if you couldn't read', Jane found 'most teachers really supporting of everything I did and helped in every way possible'. In the class with the teacher who didn't believe, those with dyslexia rallied around supporting each other to get the answers when they were questioned in class – 'I guess we got good at passing notes along the table'. Jane's diligence was recognised in her school where excellence grades were expected

I always got awards for diligence from school from third form – hard work award; even though I would never get merits and excellence, they recognised I was working hard. It was during a time when there wasn't much about it [dyslexia] in school ... I don't know that many people who are teachers understand what dyslexia are [sic] and older teachers found it hard to understand. (Interview 1, p.5)

Knowing that academic excellence was not going to be demonstrated in class work Jane was self motivated enough to use her other skills constructively both in and out of school. In her senior school years Jane was highly involved in extra-curricular activities in the school and received a service award in seventh form. She also became active in coaching younger children in gymnastics.

Together Jane and her mother looked at Jane's options for courses and universities. Her mother placed an emphasis on the importance of choosing a university that would support learners with dyslexia. Jane chose her course specialising in [xxxxx] based on what she loved to do and knew she was capable of. The course information provided was limited, and she found the first year a steep learning curve exacerbated by being constantly home sick.

As a part of a first year assignment on 'Who Am I' Jane laid out her thoughts about dyslexia in photography. Jane explained her experience of dyslexia in this study through these photographs. Jane crafted a little clay person surrounded by, and overwhelmed by books and dictionaries (Photo 1), describing this person as

little compared to words and letters ...asking you to learn more words, there are more to come, they are overpowering you. ...Surrounded by books, words everywhere, not many pictures, just words and you're meant to make sense of the world through words, not pictures. Overwhelming – that sense of lost and loss. (Interview 1, p.4)

The second set of photographs depicts 'The weight of literacy on your shoulders' (Photo 2). Jane crafted textiles using babies, children's, teenager's and adult's garments weighted to reflect her perception of literacy at each stage. Each garment has words written on them (Photo 3)

Good things on the front, positive, and the weight on the back. What people see is on the front and the weight is on the back. Words like different, dumb, uncle, wrong – words that they are called [or struggle with]. Each one is weighed differently - so essay is really heavy - others have little stones in the them 'cause they are little words and don't have the same problem. Kilos of stones in the last jacket. It shows that when you are little you are not labelled, and it's not until adult or older that the names are visible. You feel like they are tattooed on you and it's like you're not speaking. (Interview 1, p.4)

In the final picture (Photo 4)

I did a back pack that's weighted with words and has stones in the bottom. And the pack is falling to bits – getting to breaking point, ready to fall to bits. (Interview 1, p.4)

Jane's illustration reflects both her experiences dyslexia and her understanding of society's view of literacy.

The synopsis for each of the four participants provides us with some of the historical context of their experience of learning with dyslexia and their understanding of dyslexia. While each individual's experience is unique to their situation and person, there emerged a number of key categories from the coding of transcript and memo writing where similarities and differences were considered important. These categories form the basis of presentation of the next set of findings.

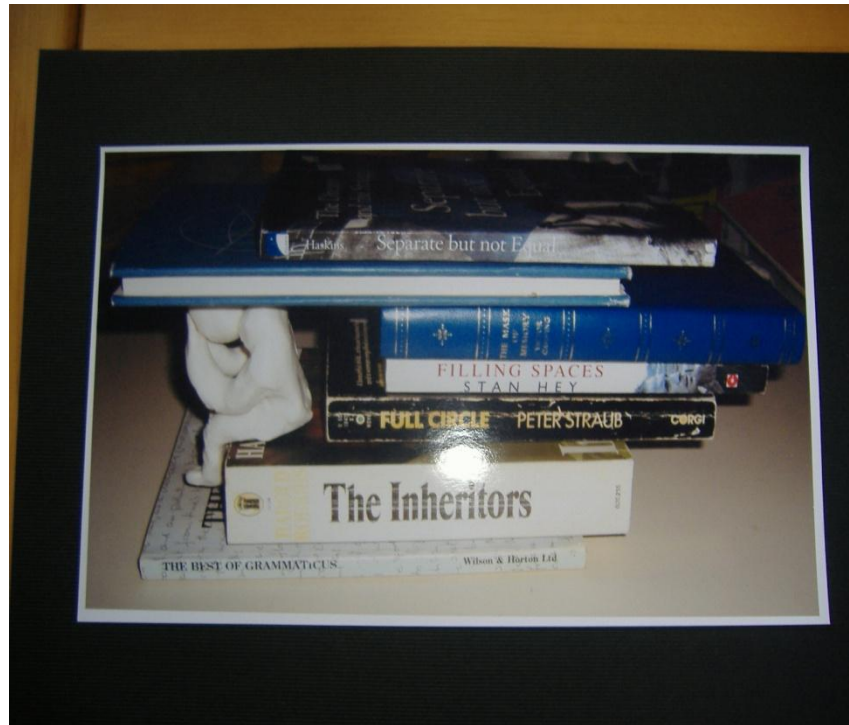


Photo 1: Surrounded by Words – Jane

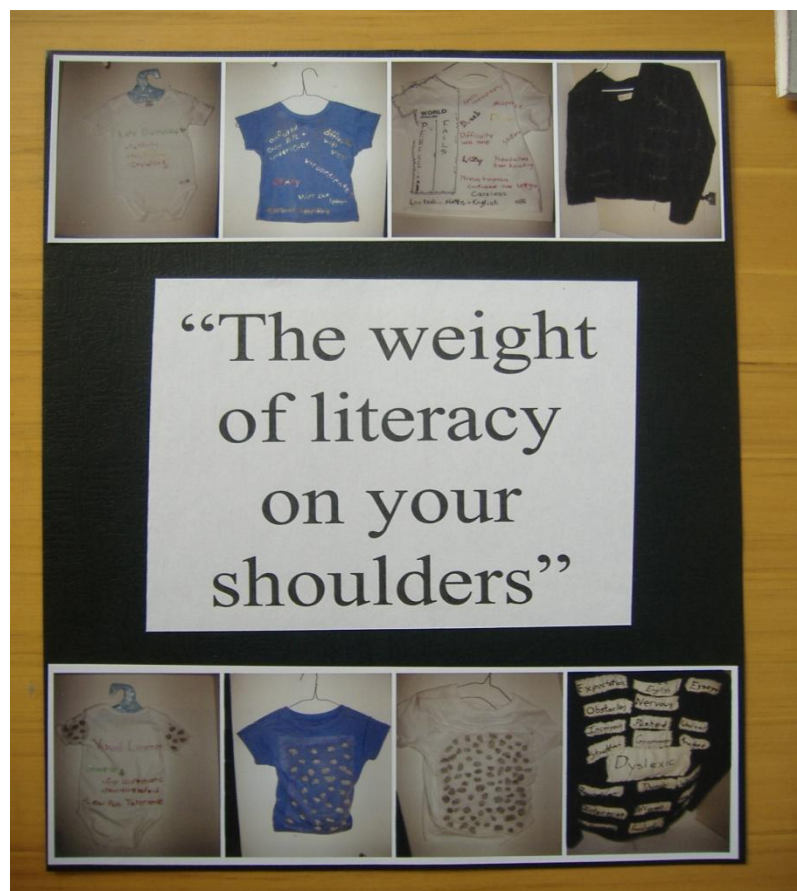


Photo 2: "The weight of literacy on your shoulders" – Jane's portfolio

4.3 Category – Cognitive Characteristics of Dyslexia

The cognitive characteristics of dyslexia are those effects of an individual's dyslexia which manifest themselves – positively or negatively – within the formal learning environments of education and in daily living. For example Claire, Jack, and Jane talked about words and numbers appearing to move on pages. The focus here is the interaction of these characteristics in literacy rich situations and the effects they have on learning and learning outcomes.

The cognitive effects and their manifestation appear more serious for Claire and Jack than for George, but affect all three. Confusion in thinking and finding the right words leads to frustration in writing, stumbling when reading aloud, and running out of time when put on the spot to answer questions, fill in forms, or contribute to discussions.

Like when I'm speaking, I'm trying to get it all in order in my head, but sometimes it kind of comes out muddled up and you like try to put it in sense, make it into order that people can understand... (Claire Interview 1, p.3)

... it often takes me more time to process something and that can be quite hard because often there isn't time to process something... you've got to make a decision on the spot... and sometimes I need more time to find out more about it... (George Interview 1, p.8)

Jack knew he had good ideas in his head but struggled to get them down in writing.

All four participants found spelling a problem, and the cognitive energy required to concentrate in the classroom meant that they require more time for study and rest than their peers, which affected their social integration.

...it takes that extra bit of work and often that comes to the detriment of extracurricular activities, nights out and having coffee with friends on Sunday, you just have to say no this week 'I have to work'. That's often hard because you still want the friendships and to have a social life. (George Interview 1, p.9)

George pointed out that reading without understanding the context exacerbated difficulties understanding in-depth or complex readings. Jack stated he often '*can't see it in my head*'. Jack also talked of difficulties he had with time management and, while Claire and George had strategies in place to overcome this common problem, Jack was still struggling with this.

I just sit down and just work. I've been working through overnight, just getting it done. But time management hasn't been very good. I haven't been good at time management. But I'm getting better. (Jack Interview 1. p.3)

Like Claire and Jack, for Jane the cognitive effects of dyslexia are serious and have continued to affect her educational outcomes beyond first year – particularly where participation in class discussion forms a part of assessment.

They put [mark] me down on participation in class ... I prefer to take in everyone's ideas, then like a couple of weeks later I'll talk to them on facebook. It's not always necessary in class, in front of teachers. (Jane, Interview 2, p.1)

Jane's biggest challenge is that for her words move on the page

You'll be reading the words on a page on the first line and then to the third line – so the story changes and it's not what you read - and the words aren't in the same order which means it changes in meaning (Jane Interview 1, p.3)

Essays must be worked on well in advance, knowing that reading, processing and writing ideas down takes time. Writing style, punctuation and spelling remain a problem,

I got a B, that I was expecting to get an A [for] because I did so much work, and she [teacher] just says your writing style is not up there. (Jane Interview 1, p.2)

All the participants answered the British Dyslexia Association (BDA) checklist a self reporting measure of an indication of the characteristics of dyslexia. In the BDA study trial (Figure 4.1) 90% of respondents gave 'yes' responses to less than eight of the 20 questions; 10% of respondents (those thought to have dyslexia) gave 'yes' responses to more than eight questions (British Dyslexia Association, 2006).

	12 Key Indicator Questions	20 Key Questions
BDA Study Trial	≤ 4 (threshold)	≤8 (threshold)
Claire	8	13
George	6	8.5
Jack	9	16
Jane	7	13

Figure 4.1 Self Reported Characteristics of Dyslexia Affecting Day to Day Living

In this study Jack gave 16 yes responses, and Claire 13. With a BDA threshold of 8 their responses are quite high, indicating they have many of the characteristics of dyslexia. Despite the strategies they have in place, these characteristics still cause them difficulties. Jack's high score suggests that he may be more aware of his difficulties, but not have many strategies in place to help counter the characteristics of his dyslexia. George's score of 8.5 suggests that his characteristics of dyslexia may not be as strong, cause him as much difficulty as the other participants, or that his compensatory strategies work to limit the impact of the characteristic. Jane also had a high score of 13 'yes' responses to the 20 questions, indicating that the characteristics of dyslexia continue to cause her problems.

The BDA checklist also contains 12 key indicators of dyslexia which ask questions about tasks involving: adding up numbers in the head, memorization, form filling, spelling, and reading. Sixty percent of all respondents in the BDA trial gave 'yes' responses to not more than four of the 12 key indicator questions, and 40 percent (those thought to have dyslexia) answered 'yes' to five or more questions (British Dyslexia Association, 2006). In this study Jack responded 'yes' to 9 out of the 12 key indicators, Claire responded with 8, and George was lowest at 6 out of 12. Jane's score was 7. All responses were above the threshold of 4. All the participants appear to have many of the characteristics most strongly associated with people with dyslexia.

All four participants found difficulty with: telling the difference between left and right, spelling, form filling, and word sequencing. Making sense of what had just been read was a problem for all, but not as great for Claire who loves to read fiction and builds pictures of the story in her mind. Jack and George prefer to read non-fiction books. Likewise Claire loves to take her time and read a good long book; George and Jack steer away from long readings because it takes longer for them to read compared with their peers.

Dislike reading books full stop really. I particularly enjoy reading non-fiction, and fiction I stumble over sometimes, I can't quite grasp what they are talking about, so simpler books. If I ever read fiction I read simpler ones. (Jack Interview 1, p.1)

Jane rarely reads long books for leisure and in high school solved the problem of reading novels for English by watching videos of the stories with her teacher filling in the missing gaps.

I used to watch the videos in high school. "To kill a mocking bird", I only watched the movie; never read the book. That's how I passed English at school and my teacher went through and discussed with me the differences in the book and the movie. So that I didn't actually ever have to read the book. I've read some. In the fourth form I would read comic books or talking books if I could. (Jane Interview 1, p.1)

While George has strengths in and enjoys working with numbers and number sequencing, Jack and Claire have difficulty with these tasks.

If I have to do a long sum I have to write it out or I just can't get all the numbers ... I actually have to see it, I couldn't see it in my head". (Jack Interview 1, p.2)

You just see numbers and it just all gets muddled up ... all the numbers look kind of the same ... you can just muddle them up so easily inside your head. (Claire Interview 1, p.11)

These three indicated it had taken them longer to learn their times table and even now they still could not recall certain number groups.

...11 and 12. For some reason I can't do it. If you show me 11 I have to go ...10, 11; if you show me 12 I have to go 10, 11, 12... I might be able to say it. (Jack Interview 1, p.3)

This was reflected in remembering telephone numbers and in long term difficulties in maths despite various attempts at help from trained teachers and other people. Consequently, Claire and Jack steered away from courses with an emphasis on number; while George took courses which focus on number - economics and accounting. Numbers also cause problems for Jane; she lets friends enter their phone numbers onto her cell phone, and knows which sets of her times tables she has memorised and can recall - *my 7,10 ,and 2.*

4.4 Category – Personal Awareness of Dyslexia and Strategies for Action

There appears to be a relationship between the types of strategies participants have for day-to-day tasks and learning based on their understanding and familiarity with dyslexia, and the type of support they have received.

George sees himself responsible for his learning and for the accuracy of what he presents in assignments. His family knowledge of dyslexia has given him a good support base and understanding of how to make improvements. He has multiple reading, writing, spelling and study strategies in place to produce quality assignments.

... I go to the dictionary or internet, and often on the internet it does show you how to break the word down. It certainly makes it easier to pronounce... (George Interview 1, p.2)

I have a way in which I study. Get notes in class, from the study guide...write a heading in one colour say blue and I write a point about the heading which [I put in] say black and bullet point it... So I learn by breaking things down and trying to get them into a more compact and if I'm asked about it I can elaborate further on it... I've really had to find strategies to be able to learn and remember pieces of information. (George Interview 1, p.9)

Although dyslexia is always in the back of his mind – it is not overwhelming. He feels compassion for other learners 'like me' who haven't had the grounding that he has. He uses bullet points, examples and key concepts to organise information, and is prepared to ask the lecturer for help.

If I'm struggling certainly wouldn't hesitate to go and see a lecturer about it... I need to understand it for the assessment. (Interview 1, p.5)

Claire is 'good at english' and loves writing – a craft she believes is pictorial; putting pictures into words a limitation. An avid reader she sees spelling as a problem not a limitation.

I've always liked writing... I used to like reading heaps... I used to write these big long stories and then the spelling in them was terrible and ... I could only read half the words in them, but... that was my way to get it out ... that was creative writing. (Claire, Interview 1, p.8)

The limitations are external – teachers don't know how to teach students with dyslexia and the dyslexic ways of learning don't fit the classroom.

Like everyone, you have your own way of learning, everyone does whether they're dyslexic or not... but they're all taught the same in one way ... it's all very one-sided at schools but it needs to be more two sided, bit of this and bit of that. Because if you were teaching to dyslexics... you would also be helping the rest of the class too, because you would be giving them a different perspective on how you learn things as well. (Claire Interview 1, p. 14)

She has developed colourful strategies using pictures and imagery to help memorisation. She learns from past experiences and adapts strategies to new tasks but has not found a strategy which helps her with numeracy.

Jack knows maths and time management are problems for him. He isn't aware of when he is making mistakes with either numeracy or literacy, but is reflective learning from past experience. He doesn't have time management strategies in place and relies on his interest in subjects to keep him focused, on task.

If you told me how glaciers are formed I could draw it out for you. I'm not very good at drawing, but I can tell you how it is formed, but writing and essay about it is a lot harder. I've got good ideas in my head, but it's putting it down on paper and structuring it. (Jack Interview 1, p.5)

He values education and wants to teach the subject he loves – geography. He is reliant on a responsive approach to learning rather than being proactive. He makes changes to learning strategies as a result of disappointments rather than planning ahead.

Jane describes herself as hard working to achieve her results; this is also acknowledged by her friends. She has chosen a degree that encompasses her love of photography and creativity, and allows her to reflect her knowledge in words and art. She is highly organised and uses her visualisation strengths in her study

using colours, different colours for urgency or things to go back to. Diagrams, brainstorming, mind mapping (Jane Interview 1, p.7)

She uses mind maps to study with friends so that they can share and build up their ideas

I write my mind map and they'll do theirs and then we pass it onto someone else... we do it from time to time to help each other get as many ideas as possible, to get along as far as we can. I'm visual thinking and learning, I'll go and experiment and then go 'that didn't work because of this and this'. (Jane, Interview 1, p.7)

She continues, at fourth year, to run her assignments past her mother for spelling and grammar checking; a practice she has carried over from her earlier education. She knows that spelling, grammar and writing style continue to be weaknesses, but are important to lecturers, so she uses her mother and university learning support staff to help her.

4.5 Category – Personal Characteristics and Emotional Effects of Dyslexia

Even for the most positive of the participants learning with dyslexia is a constant struggle, sometimes causing self-doubt *'rearing up when you don't want it to'* (George, Interview 1, p.8). George is positive and comfortable explaining what dyslexia is to those who don't understand. Claire however, is often embarrassed and upset when dyslexia *'gets things muddled'* or she finds things *'getting confused'* (Claire, Interview 1, p.11). The stress and tension of failure, and threatening tones of teachers have left her hurt, anxious and fearful of further failure. In the early stages of understanding, Jack places the blame for the educational outcomes of his dyslexic characteristics on himself as a personal failure.

Often, if a lecturer says something people can get it right, people can understand it straight off and um I have to go through it a few times just to get, just to understand it and I don't know if that's just me being dyslexic or just not being as smart as other people...But I do have to take time to understand things properly... but once I get it it becomes all clear. It's funny like having your eyes opened for the first time you think why couldn't I have got that first off? (Jack Interview 1, p.5)

All three exhibit intense emotions in their responses and interests in their study *'I was like freaking out'* *'it felt much harder'* *'I still get nervous'* *'I was worried'* *'I constantly struggled'* *'It was well above what I thought I would get'* *'I felt stupid'* *'I'm good at geography because I love it'* *'now I'm doing what I love a BA'*. All three describe themselves as persistent – working much harder than their peers, showing more perseverance - *'kind of have to soldier'* (Jack, Interview 1, p.3) *'not a quitter'* (Claire Interview 1, p.13) when everything takes much longer. All are independent and individualistic recognising that others don't think or work like they do. George is competitive. Claire is self critical: self-checking her achievements and reflecting on how she can improve another grade. Only Jack openly expressed relief about being in the right place – studying at university - especially after failing his first semester papers.

Good news I passed all my papers. Was worried that I would have not. I found semester 2 a lot easier than the first one ... (Jack, email 08/12/2009).

Jane acknowledges that she is diligent and hard working and that the support of her mother has given her the confidence to try a variety of things. However, regardless of how careful she was with her school assignment work, studying for exams, to learn and practice her gymnastic and dance routines, and do her best, what she presented was often graded inadequate.

In exams I always had extra time but I didn't need extra time. I knew what I knew – until the exams come back, and you get not achieved... I guess the false belief that you think you're doing it right but you're not, and you're like, yeah this is right – [know] exactly how to do it, and it comes back not achieved. It's hard to process this 'cause you did everything, the best you could. (Jane Interview 1, p.3)

In her first year she struggled with university, describing herself as: *homesick, a nervous wreck, I wasn't confident*. She found it difficult understanding what was required in assignments but was

more confident actually in first year to talk to lecturers in class than I am now. Because in the first year you could turn up and go 'I don't know what I'm doing'. (Jane, Interview 2, p.4)

4.6 Category – Discourses of Dyslexia

Jack's discourse of dyslexia is being developed based on information from websites he has explored and on the understanding of his mother.

I've never been good at spelling. And I kind of went on the internet and I had a look around and found out about it, and then I told Mum who told me, that she knew. (Jack Interview 1, p.4)

At the time of the interviews he held a medical discourse and framed dyslexia as a biological problem with resulting deficits in learning. He identifies his ability as a '*mind full of knowledge*' but also sees limitations that he believes can simply be '*overcome by hard work*'. Many of the dyslexia characteristics he frames in negative words '*I can't*' '*I haven't been good at*' and wonders what he '*would be like if he didn't have dyslexia*'. While he knows he has ability to learn more Jack did not identify personal learning strengths. He made a distinction between '*those people*' with permanent disabilities who used reader/writers in school and himself, as he didn't see himself or want to be seen, as different.

George and Claire have well developed and articulated ideas of dyslexia and what it might or might not be. George takes an educational cognitive approach looking at the affective traits of dyslexia on learning. He repeats the understanding of his mother and Speld trained grandmother when he identifies that there is no clear understanding of dyslexia but that it has implications in learning to spell and in reading in sounding out words.

She realised it's hereditary and gets passed on, as my nana being a Speld teacher did, ... and like remembering sequences and numbers ... struggling in certain areas like reading and writing .. struggling at primary school... were always below the reading and writing age that we should be for that age in class. (George Interview 1, p 5-6)

He identifies that time is a critical part of learning with dyslexia, and limitations on time add stress to the intensity of learning. He identifies that teacher ignorance compounds the learning process but that good teaching strategies work. George sees dyslexia as an integral part of himself and the norm, but points out that it affects the lives of other people around the one with dyslexia therefore understanding is important.

It's obviously a hindrance on people's lives not only those with dyslexia, but those who share the lives of those people with dyslexia, whether friends, family or whoever, colleagues ... a hindrance and people have a problem of understanding me sometimes because they are unaware. (George Interview 2, p.3)

He believes that learners with dyslexia need to learn to aim high and that despite barriers they will succeed.

Claire takes a socio-cultural approach to the concept of dyslexia focusing on the social implications of ignorance in understanding of dyslexia as causing barriers. At the same time she identifies for herself that there word confusion within her own head – letters and words don't make sense, or are not in the right order. She sees pictures, colours, kinaesthetic and visual means of viewing and explaining knowledge as the norm for her. She thinks that dyslexia doesn't fit the New Zealand/western culture and that there are societies where learners with dyslexia would have their knowledge and creative abilities fully recognised.

There are probably cultures out there that dyslexia would fit perfectly in. You know like the ones where stories are passed down and by knowledge instead of

writing and reading, it's talking and drawing... we'd fit perfectly there... in this kind of society and culture we don't really fit in as well. (Claire Interview 1, p. 9)
it's just a different way of thinking ...but it's wrong in this society. (Claire Interview 1, p.10)

Similar to George's cognitive educational perspective of dyslexia, Jane also integrates concepts from the socio-cultural discourse into her discussion of dyslexia. She is open to change to incorporate other ideas such as the place of using her visualisation strengths, and refers to ideas learnt from doing the Davis Dyslexia Correction program. She sees in some other people reluctance or resistance to understanding dyslexia as they are

solid word thinkers so don't understand too much about what you are trying to explain (Jane, Interview 2, p.8)

4.7 Category – Prior Learning Experiences

Claire's recollection of prior learning experiences was very intense and emotionally disturbing to her. She identified teacher ignorance as being a major factor, with teachers uninformed in looking for pedagogic reasons for delayed progress in early education, instead placing the fault on student attitude. Claire remembers the words and labels used; she found the language and approach of teachers as personally threatening.

Like when I used to write mirror ... my teacher was like 'you start here!' and drew a massive asterisk on the thing, 'you start here and go this way!' ... and so I would go and I'd write the right way and I'd get to the next line and I'd revert back and I'd just keep on going and [she'd say] 'look you did it the right way here and why can't ...' So they didn't really understand... (Claire Interview 1, p.6)

They think 'she's being naughty' or 'she has got bad concentration', they just label something ... they never even think 'oh you know she could be dyslexic'. They just think you're this naughty little kid who is not listening. That needs to be put in a corner and that puts a negative ... from then on you think of education you think of negative ... you don't want to go to school. (Claire Interview 1, p.14.

Claire saw that as soon as kinaesthetic and pictorial references for learning were removed in primary school learning for her became more difficult.

And maths was like a foreign language to me the whole time. They'd do things like count the bricks and as soon as they took them away it was like 'ok then what now? Can I count my fingers?' ... I think it's just the way that schools are set up. (Claire Interview 1 p.6)

She suggested teachers had a one-sided teaching approach offering no understanding or support to those students who had different learning styles. Claire believes retention of knowledge is related to interest in the subject rather than positive learning experiences, and cites her own interest in creative writing and classics despite poor spelling. Claire also identified that for her the NCEA resubmission process worked well especially where spelling, grammar and knowledge were also being tested as she could resubmit an assignment with the language corrected.

Tailored courses, a clear parental strategy for education for their child, and continuous help throughout compulsory education are features George attributes to his positive school experience. Teaching strategies and smaller classes meant he had a good set of study skills and feedback on performance. Teachers who worked or trained overseas were familiar with a wide range of learning difficulties and teaching strategies. Areas for improvement were identified and targeted based on his future career choices. The school pushed for, and supported success, requiring students to aim for the best marks and George experienced success. However, George pointed out that under the NCEA system success and failure are not necessarily clear; that while his grade point average for English was 4.6 he was granted passed status under NCEA. From his experience of success and failure in sport George identified that all students need to experience failure to learn how to push themselves beyond the barriers that would limit them.

Jack's mixed experiences of schooling he now attributes to not knowing that he had dyslexia and what it meant for his learning. He had difficulty with time management and continues to have problems. His school recognised his potential and his interest in pursuing higher education studies and so structured his learning in this direction.

I have never been good at English and they kind of picked up on that in seventh form and [said to get into university] 'he has to go into the best English class so he can learn' ...and the teacher spent extra time with me. (Jack Interview 1, p. 5-6)

He talks of being given 'the best teachers' for subjects he struggled in and being taught good study techniques for exams. However, throughout his study Jack found

himself anxious and nervous over assessments. He found English difficult and worked hard to succeed.

I did have to work especially hard getting things from head onto a piece of paper, and the teachers helped me with that and I had good tutors outside (Jack, Interview 1, p.6)

Jane's experiences of earlier learning are similar to George's, in that parental decisions and support have played an important role in providing the right type of environment for learning. Jane describes her school as '*an excellent school*'. Despite this, Jane still found reluctance by some teachers to accept dyslexia which was demonstrated in their classroom teaching. Her mother intervened when she considered teacher's course advice was inappropriate, for example the proposal that Jane should take Media Studies instead of English as a subject when Jane was struggling with essay writing. (Both NCEA courses require the presentation of knowledge in essay form with high accuracy spelling and grammar). Teachers' lack of understanding of dyslexia and learning with dyslexia is a reoccurring theme in Jane's discussion.

4.8 Category – Decision Making

The decision of whether or not to continue onto university was difficult for two of the four participants. Jack questioned his ability to meet academic expectations based on the struggles he had had within the compulsory school sector. *I did have second thoughts about coming here, but I think I made the best decision (Jack Interview 1, p.7)*. His parents also questioned his ability wondering if he might be better off going to polytechnic. His siblings, who had experience of university, were convinced that he should give university a go believing that perseverance would be the key to success.

Claire's extended family expectations crowded her decision making. She felt pressured to make the choices her family wanted pushing aside her own doubts, fears and interests to take a course that her parent believed would provide a clear career direction. Given confidence in her capability as a learner Claire would have chosen an art and design course but feared that if she took the course and failed her love of the creative arts would be destroyed.

I was going more towards the arts 'cause that's what I'm good at (Interview 2, p.3.) I love art, it's one of my passions ... then I decided halfway through the seventh form that I wasn't... I was really, really, scared that if I did Art and I

wasn't good enough ... or I failed my degree or I got a job I hated or worse was bad at ... it would be horrible... because art is the one thing I've always been good at. (Claire Interview 1, p.7)

In her search of course and university material she didn't find anything indicating that her dyslexia would be recognised and supported at university.

I don't know if there was actually a place to put it. Like there was do you have any disease [sic] ... like in a wheel chair there was that sort of thing but there was nothing for like dyslexia. (Claire Interview 1, p.12)

When Jack's school became aware in Year 13 that Jack intended to continue onto university he received support and encouragement. He was put into *the top English class* with a teacher who spent extra time going over essay structure and giving Jack tools for getting his ideas down clearly. Maths, which continues to be an area of weakness, became a target subject to ensure that Jack had the appropriate numeracy credits for University Entrance. Even with this support behind him Jack fluctuated in his thinking wondering if he was indeed making the best decision. Support from his siblings in selecting a course appears to have been the final push that Jack needed to choose university. Their confidence in his trait as a hard worker led them to believe he could succeed.

George's decisions about university had taken place over several years based on yearly interactions with a careers advisor who had a whole person approach to advising. Subject choices and ultimately university choices were streamlined through looking at interests, background, choices, and levels of support needed. Both George and his careers advisor sought information from universities to determine the best course to take. George saw the progression to university as natural; a continuation of his parents' commitment to his education. Having looked at the course options available a decision was made based on locality.

All three students thought when they sought course advice from university staff and said they had dyslexia, that the staff would be knowledgeable about dyslexia. They expected the staff to inform them, as potential students, if dyslexia would impact on course work.

Jane laughed at the school's careers advice offered to her

Nurse, doctor, lawyer – told me I should be a lawyer, and I laughed in her face. You have to do lots of reading to be a lawyer for a start (Jane Interview 1, p.4.).

Consequently her mother intervened in helping her search to acquire the right information, and to make the decision.

Mum had a look at the dyslexia service here before I chose [university]. We looked at who would support dyslexia students before I chose my course because we know [other universities] aren't great. (Jane Interview 1, p.4).

Going to a university which would be supportive of her learning was a priority for Jane and her mother. Jane then chose her course based on her interest – photography – and strengths in other arts. She had chosen first year papers where she could express her knowledge and creativity in written or visual forms.

4.9 Category – Expectations of University

Based on previous experiences of learning students wavered in thinking about whether or not they would have the ability to succeed at university. Both Jack and Claire expressed words of doubt fearing that they might not be able keep up with workloads and deadlines.

That I would completely and utterly be lost. That I would have no idea what I was doing and the work would be like 10 ten times harder. When I wrote essays I was scared I would have to do it perfectly otherwise I would be pulled up and marks taken off and failed. The workload, like I was scared it was gonna become overwhelming, and then the exams... (Claire Interview 2, p.4.).

She described the step up to university as being similar to the move from intermediate to high school – frightening but achievable. Claire's previous educational experience had left her with a feeling that little would be different from high school, just more hard work without the second chances provided in the NCEA assessment system.

George entered confidently, but with an expectation that because he would be learning in a higher academic environment, lecturers would have an understanding of dyslexia and be able to look beyond literacy issues of spelling and grammar to recognise the level of knowledge presented in assignments and exams. George expected his lecturers to know about his special exam conditions and, having noted spelling errors and the high level of knowledge presented in his assignment, the lecturer would ask why the spelling was so bad. This didn't happen. Based on her experience of the lack of

teacher knowledge of dyslexia at primary and secondary school Claire expected the knowledge of university teaching staff to be the same.

Jane's brother had had an unsatisfactory experience of university so Jane was determined hers would be different. When she enrolled she ticked the disabilities box expecting the information to be given to the disabilities centre and that they would contact her. She now knows *...it doesn't happen that way, you have to go and find help for yourself, (Jane Interview 2, p.5.),* but she is also aware that some people don't want to be contacted. She suggests placing a box on the enrolment form for the student to tick if they want to be contacted. Jane also expected classes to be big and lecturers to have little time for students – an impression she gained from her secondary teachers. Like the other three participants Jane was hopeful that at university her strengths and capability would be recognised.

All expected the level of academic work to be higher and that they would have to work hard to succeed. All expected to have the opportunity to explore new areas of knowledge and to have their acquisition and understanding of knowledge tested rather than being assessed on literacy.

4.10 Category – Transition to University

All participants recognised the need to work hard to succeed and the perseverance skills learned in earlier education would serve them well. George and Claire identified that as learning at university required more time, this had a considerable impact on social and sporting activities. George noted he wanted to have a social life but this was sacrificed as he struggled with keeping up with course readings – managing overall about 50% of the required reading. Jack took the approach that he just needed to keep at the work. Readings took up a lot of his time

they are quite long, they take a long time to read. Once I like read them, write up what I can remember and then read them over again and write some extra notes (Jack Interview 2, p.4.).

Jack was occasionally lost as the locus for control of learning had moved from the teacher guided learning of secondary school to self guided learning. Despite being in small classes Jack hadn't managed to get to *know anyone in my classes.*

Claire, Jack and George feared and experienced failure in the first semester, with Jack incurring substantial personal costs through student loans in the process. The career focused courses Jack and Claire had enrolled in didn't hold their interest, or fit Jack's understanding of the course. Both struggled through the first semester relying on their personal work ethic and prior learning strategies to get them through. Jack failed his papers while Claire managed to pass. Over the study break between semesters both made the decision to change courses and take subjects they were interested in rather than continue down a career path. This proved to be transformational for Jack who, in reflecting back on his year, stated:

I found semester 2 a lot easier than the first one. I had easier subjects and I found there was a lot less pressure on me. My study went well as I learnt what went right/wrong with me last semester and I was able to improve and refine my techniques resulting in greater efficiency. I am pleased with my final marks. Even though there is room for improvement you can't get upset with a pass (Jack email 08/12/2009).

In the second semester having made changes to course and adaptations to study strategies all three participants passed – George achieving B and A grades, Claire B and C grades and Jack passing.

These three saw themselves as being entitled to get help with study as there would be no second chances at an assignment in higher education. George and Claire expected any information on their enrolment form indicating dyslexia would be passed onto course coordinators and lecturers. Jack and Claire both discussed the fact that there was no space on enrolment forms to indicate they had dyslexia. Claire noted that information was sought on disabilities which she, and Jack, interpreted as meaning physical impairment. When Jack struggled in his course he didn't go to lecturers for help but relied on the study guides, prior knowledge and interests. Jack and Claire had not approached lecturers to discuss their learning difficulties assuming that passing would be seen as an adequate indicator of success.

But since my essays [okay] ... I don't think there's much point going and telling them... they'd probably be like 'oh, so, you're still passing your essays, why do I care?' (Claire Interview 1, p.12.).

George was proactive approaching his lecturers as the 'experts' to ask them to explain in another way if he didn't understand a particular piece of information. Claire and

George had both approached student support services just prior to exams to organise extra time for exams.

What they found on starting university was that many of their fears and concerns about keeping up with lecturers, course work and assignments were unfounded. They believed they put in more hours of study, than many of their peers, and sacrificed social and sporting events to do so. Despite specifically seeking course information and advice all three felt they had not received appropriate information before enrolment. George pointed out that despite his advisor and family checking on the course, he did not find out about pre-requisite first year papers needed to continue at third year until sitting in lectures in the first semester.

All three found they were well prepared for study particularly in essay structure and in developing study techniques to suit their situation. All three pointed out it was important to develop or adapt strategies and work, then

...it's not somebody else's work... You're writing it yourself, you're making the words up yourself and it often helps. It's harder to learn other people's work. If you are learning your own work, it's easier (Jack Interview 2, p.3.).

At university Jack found it difficult to study and had concluded that he needed to find the right place. Jack uses the library as he needs to have others around him to help him focus for study, afraid that if he studied in his room he would be distracted. Even in the library he must be disciplined not to waste time on the computer.

Like the other participants Jane found the initial transition to university difficult as she was living in a new city trying to find her way around, learn timetables, the campus layout, course learning requirements, and cope with new living environments. She often felt overwhelmed resulting in homesickness. While she had to adjust to larger classes she found the lecture environment stimulating and interesting, with plenty of discussion of lecturer expectations. Tutorial classes offered small group learning opportunities which balanced the large teaching situations. She was not afraid to ask for help, but didn't use the disabilities services a lot in her first year (until she required extra time for exams) despite encouragement to do so.

Head of xxxxx talked to all the first year students and said fifty percent of all xxxxx students have dyslexia or learning disabilities. If you like know you have

*it, or think you have, you need to get tested and go to disabilities services.
(Jane Interview 1, p.4.)*

Looking back at her first year Jane found her diligence and determination had stood her in good stead.

I probably spend fifty percent more time than others in my class working, like I'm still doing 50 hour weeks by the time I'm studying... talking with other people, processing it (Jane, Interview 2, p.8).

She too limited her social and sporting interactions in first year to be able to cope with her workload. She achieved B grades in her first year, which have been consistent with her marks throughout her degree. She now acknowledges that she was disappointed with her first year marks, as she had been receiving excellences in art in high school, but was pleased not to have failed, and to have managed the change in study and living conditions.

4.11 Conclusion

The participants in this study had four separate prior learning experiences based on the school and their teacher's knowledge of dyslexia, and the length of time and understanding they had of dyslexia. These experiences led some to doubt their abilities and if the decision to head to university was the right choice. Their expectations of university were that they would need to work harder, may fail, and would need to commit more time to study. Their experience of university was that they did need to continue to work hard, they needed to sacrifice social and sport time to study, and they were able to succeed in higher education. These findings are discussed in the next chapter.

CHAPTER FIVE

DISCUSSION

5.1 Introducing the Model

The constructivist grounded theory process involves rethinking and revisiting the codes, categories and memos presented in the findings in new ways and forms until the major categories for the research are consolidated. Themes started to emerge from revisiting the categories and reconsidering the research questions. Asking how prior learning experiences had affected these students with dyslexia in their transition to university in New Zealand identified six themes. In this chapter I present a tentative model of the stages important in the transition process for these participants identified by the themes. The emergent theory in the model is discussed in terms of the themes. Following Charmaz's (2006) direction I have re-introduced the voices of other researchers as I place the emergent theory from this research in the wider context.

Writing is a social process. Draw upon friends and colleagues but write for yourself and your grounded theory first. You are now the expert; the theory is yours. Let the voices of teachers and other researchers grow faint while you compose the manuscript. Once you have drafted your core ideas, bring these voices back. (Charmaz, 2006, p. 176)

The transition experience for these four students with dyslexia within one university in New Zealand is affected by a number of personal, cultural and institutional factors. The most important are: the length of time the student has known about their dyslexia, their acceptance and understanding of dyslexia, their approaches to learning as a consequence of prior learning experiences, their determination to succeed, and their academic buoyancy as they continue to study in higher education. Using constructive grounded theory methods, a model based on the categories and emerging themes identified in the findings has been developed to reflect this understanding.

The model of transition to first year study for students with dyslexia (Figure 5.1) consists of a central core which reflects the key stages that characterise the prior learning experiences of the students that are important as they transition to university in New Zealand. This core is between two major themes which emerged from the data

– Discourse of Dyslexia and Self Advocacy. These two themes overlay and influence the whole model and are, in turn, influenced by the development of self. An arrow depicts the increased confidence developed as participants move from one stage to the next. Self advocacy however, may increase as the student moves between stages, may remain the same, or even diminish therefore no arrows are used. Likewise, the discourse of dyslexia may change or remain the same.

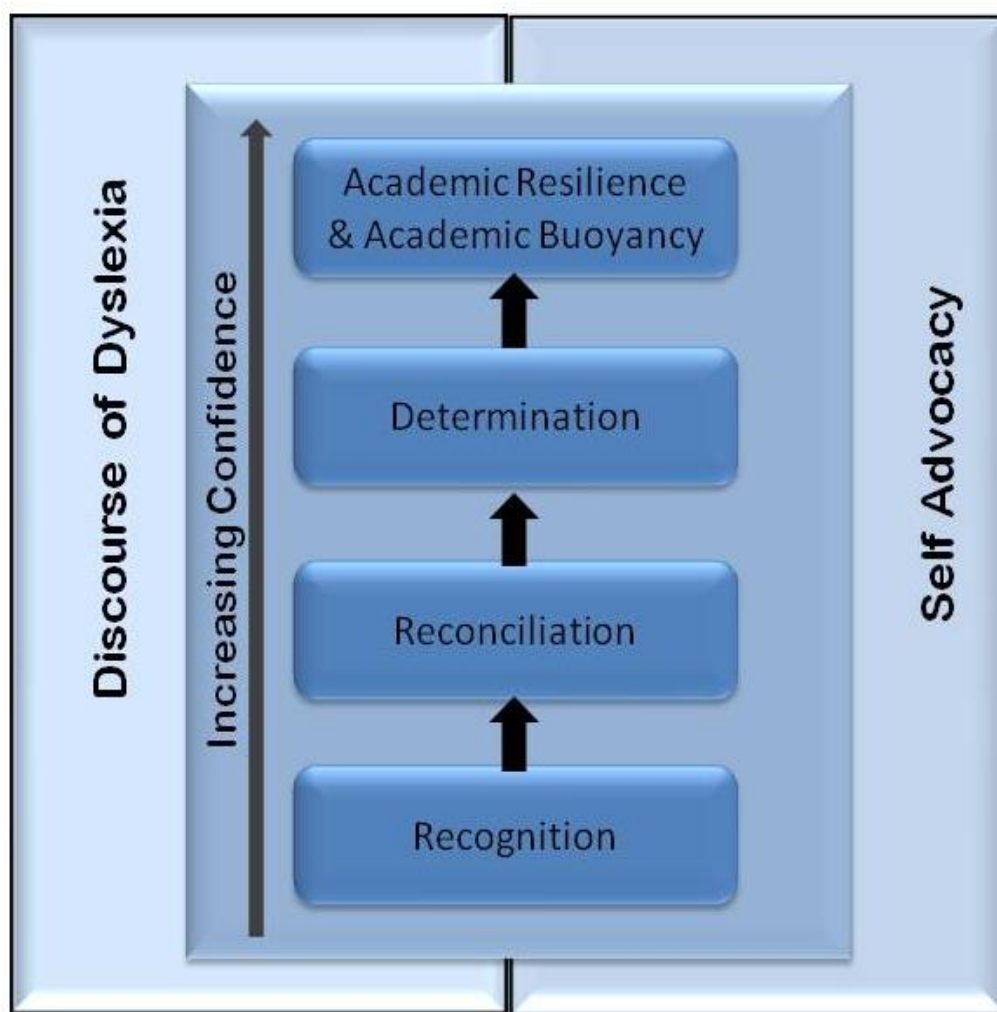


Figure 5.1 A Tentative Model of the Stages Important in the Transition to University for Students with Dyslexia in New Zealand

The core centres around dyslexia: the place of dyslexia in these student's lives, their understandings of dyslexia, understanding their own approaches to learning, the development of individual learning strategies, and their personal characteristics. These factors are key to their successful transition to the first year of study at university. The stages within the central core may not occur independently, they may overlap.

5.2 Recognition

Recognition is the first stage in the model: struggles with literacy are acknowledged either by the student or those around them and some action taken. In this study the recognition of a student difficulty within the teaching-learning environment came from family members or someone closely acquainted to the student, rather than the classroom teacher. All students were found to have difficulties in reading and writing around 7-8 years of age. Families then sought confirmation that there was a basis to their perception of a problem, through an educational psychologist. The term dyslexia to describe the learning complications was used at this point. The discourse presented and approach taken by parents then seems to have influenced the knowledge the student has of their difficulties.

Two types of recognition seem to occur – family recognition and individual recognition. Family recognition and individual recognition occur together when struggles are openly acknowledged, discussed, and plans for future schooling include the student. Individual recognition alone occurs when there is a lack of openness in explaining the learning difficulties to the student. Parents assume the child has understood or withhold information based on their own values. Individual recognition, understanding of dyslexia, and seeking support for learning, then takes place later in teenage years. Struggles in education have a stronger influence on the learner's perception of themselves and their capabilities. The age at which individual recognition takes place is important in understanding the cognitive effects of dyslexia on learning, and provision of appropriate opportunities for learning. Finding learning strategies and developing skills that work in learning takes time.

In the recognition stage the cognitive effects of the characteristics of dyslexia are just being distinguished; students and parents are puzzled by difficulties in spelling, handwriting and grammar, and unexplained confusion in learning. Teachers identify that progress in reading and writing is below expectations for age and may describe the learner as being inattentive, or *'not listening'*. The student feels there is something *'not right'* or *'something wrong with me'*. The emotional effects of dyslexia are revealed in the student as frustration and anxiety. After dyslexia was confirmed Jane just wanted *'a pill to get rid of it'*. Strategies for action after confirmation are dependent on parents' knowledge and understanding of dyslexia. Jane's and George's parents took decisive action seeking help through Speld and schools. Jack and Claire are not aware

of their parents doing so.

In the UK and USA studies show recognition of a learning problem and the push for a determination or cause for the difficulty often comes from parents or the individual, rather than a teacher. Students then gain an understanding of dyslexia and work hard to overcome their difficulties, or struggle on without understanding (Brown, 2009; Griffin & Pollack, 2009; Pollack, 2005; Riddick, et al., 1997). A Dyslexia Foundation of New Zealand study found that teachers believe that they know how to identify students with dyslexia based on their experience and personal research (Neilsen Company (The), 2008). Yet in this study the discovery of dyslexia has been at the instigation of the families or the student rather than teaching staff. Parents have had to act on their children's behalf: in their schooling, seeking professional confirmation of dyslexia, funding private tuition and changing schools where necessary. Assistance from schools and teachers has been variable and subject to change from year to year.

5.3 Reconciliation

The second stage appears to be reconciliation by the student that dyslexia is a permanent characteristic of their learning, but it should not restrict their progress in education. Participants in this study identified this as a critical step; some situation or event allowed them to see themselves as learners with different cognitive approaches to learning. This stage appears to have occurred in Year 10 and 11 of school, when as teenagers the challenges of secondary education had the potential to overwhelm them. Each participant had their own story of an awakening to understand that they had potential as learners with strengths and weaknesses.

The lack of understanding of dyslexia by others meant that at some stage they were not understood as learners. Behavioural labels such as '*lazy*', '*slow*' and '*naughty*' have been used by teachers. These labels affected students' views of themselves and their response to future opportunities for learning. They gave in to the perception of being poor learners. All identified a point at which they now recognised that they lost motivation. They exhibited amotivation in their behaviour believing that there was no point in doing tasks they didn't feel competent to do, or where they didn't believe they would produce an acceptable result (Ryan & Deci, 2000).

Amotivation is a part of self determination theory which considers how social and cultural factors help or hinder people's choices or ability to act, as well as their view of themselves and the quality of their accomplishments. Ryan and Deci (2000) identify that these conditions influence individuals experiences of autonomy (their ability to make decisions for themselves), competence (the acquisition of particular skills) and relatedness (how they fit in the wider world); and affect their decision making through motivation and engagement. If the psychological needs for autonomy, competence and relatedness are blocked or not encouraged within a social context like the classroom, this will have an impact on the individual's sense of wholeness in that setting and can have lasting effects (Deci, Koestner, & Ryan, 2001).

At this stage the students in this study could have opted out of education, but all chose to continue. The key was the recognition from a teacher, or outside source, that they were capable of academic attainment. Appropriate direction, that positively reinforced the student's belief in their capabilities, was given. The support of teachers, peers, and family was important in reinforcing a positive self concept and in their understanding that they were academically capable of study at a higher level. In a longitudinal study of teenagers with learning disabilities Givon and Court (2010) identified after recognition some students reacted against being labelled, as they coped with their learning difficulties. Student behaviours changed with students either rebelling and acting out, or avoiding learning situations. Their move from avoidance to reconciliation was based on acceptance of the label of disability.

The students in this study understood dyslexia as being different and out of place in their experience of education as opposed to a disability. They accepted it as *'part of who I am'*. They were willing to go to tuition and *'learn the basics'* in new ways to build their skills. They recognised they were capable of producing *'good results'* if they *'worked harder'*, rather than perceiving themselves as lacking in ability or understanding. Riddick, et al. (1997) and Pollack, (2005) found some dyslexic learners dropped out of education at this stage because they were overwhelmed by the need to exhibit competence in forms of assessment that were disadvantageous for them. As adults learners they had had to develop academic self-confidence. In higher education they were determined to prove their academic capabilities. For those who stayed in study, Dale and Taylor (2001) found that identifying there were others with dyslexia still pursuing education ignited a determination to continue.

5.4 Determination

Having identified they aren't dumb or stupid, the students' personal characteristics became more prominent. They showed a clear willingness to accept help that looks at developing their strengths and interests. They recognised themselves as academically capable and made decisions about the future considering what they can and might do, rather than what they haven't achieved. Opportunities are identified. At this stage cultural capital of family, peer and school support remained important as they developed skills and worked hard to become independent learners. They sought learning and examination accommodations to help them succeed. Teachers also identified this determination and helped to build the student's expectation of attendance at university. Determination built and prevailed as they gathered the required qualifications to gain entrance to university.

The forms of determination present in college students with learning disabilities have been described by Miller (2002) as 'resilience elements'. These explain the positive or negative behaviour of students where there is some risk factor (learning disability) which may impact on their educational success and progress. In identifying the differences between resilient and non-resilient students Miller ascertains the importance of students identifying past and present successful learning experiences, their particular areas of strength, self determination, distinctive turning points, encouraging teachers, and acknowledgment of learning difficulties. Many of these factors have been identified by the students in this study.

At this stage others' lack of understanding and acceptance of dyslexia still influenced students' thinking. Administrative and pedagogic responses to dyslexia vary widely within education. Variations are linked to understandings and awareness of dyslexia (Chanock, 2005; Griffin & Pollack, 2009; Hunter-Carsch & Herrington, 2001). As found by Collinson and Penkethn (2010), Givon and Court (2010), Hunter (2009) and Pollack (2005) this awareness impacted on students' disclosure of dyslexia, motivation and academic achievement. At university students didn't want to be seen to be different and they made decisions about disclosing their learning challenges based on their past experiences of acceptance of dyslexia.

Mortimore and Crozier (2006) also found a lack of understanding of dyslexia within universities stopped students taking up support and produced anxiety when asking

academic staff for help. Richardson (2009) found that students often didn't declare their dyslexia due to the stigma about learning difficulties and their independence. Like their counterparts overseas, the students in this study wanted to forget their literacy struggles and picked courses and careers where other strengths are valued, knowing that there are other characteristics of dyslexia which set them apart (Chanock, 2005; Fink, 2007; Hunter, 2009). By the start of semester two of their first year all participants in this study had made course selections where they felt they could rely on their individual learning strengths.

Despite societal views of dyslexia and literacy ability reflecting intelligence, these students showed that dyslexia is not a barrier to gaining entrance to and achieving at university. International studies by Carroll and Isles (2006), Cottrell, (2003), Fink (2007) and Riddick et al. (1997) have also found that capable students with dyslexia are able to enter and succeed in tertiary education. However, the number of students with dyslexia who do continue onto study at university in New Zealand, and succeed remains unknown.

However, determination alone is not sufficient to carry the students in this study through the transition of first year. The cognitive effects of the characteristics of dyslexia have not gone away – they are managed. Dyslexia is always present in the back of their minds. They have their own discourse of dyslexia based on their experiences and knowledge. At university these students demonstrated diligence. Learning strategies successful in gaining NCEA and University Entrance qualifications have been transferred to university. They know that determination and diligence brings success and they are capable of achieving excellent grades when given the opportunity. They have developed something else that helps them succeed at university.

5.5 Academic Resilience and Academic Buoyancy

The fourth stage in the model is academic resilience and academic buoyancy. All four participants demonstrated these to varying degrees in their first year at university. Having identified as having dyslexia and capable of achievement they showed a persistence to keep going. Despite having more obstacles to overcome at university they persevered on regardless. They recognised their past hard work and determination as the backbone to their success thus far; in their academic studies they

continued to be resilient. Their decisions about whether to disclose dyslexia, to seek accommodation and help, were based on their past experiences of learning and support. Their maturity as independent learners with learning strategies specific to their ways of learning became advantageous, and enabled them to succeed where their peers did not. They now make course decisions on the basis of their interests and capabilities rather than the expectations of others. They make sacrifices in social and sporting activities to maximise the extra time they need for learning, but more importantly even with false starts, they continue to succeed in their studies. Setbacks in academic attainment are regarded as learning opportunities rather than failures.

March and Martin (2009) describes this attitude as academic resilience, where students accept that adversities or difficulties are a part of their cultural capital and have an influence on their study. How they deal with these difficulties in the daily academic environment is a reflection of their academic buoyancy. Academic resilience was seen in the approaches of the students in this study in their decision to attend university. All participants had spent time in self reflection before attending university thinking about their previous learning experiences, the impacts of dyslexia on their learning, their academic and personal characteristics, their expectations, and their learning strategies. Despite a literacy discourse that almost excluded them in compulsory schooling they recognised that they are academically successful and are determined to be included. Collinson and Penketh (2010) also identify this as “resistance through persistence” (p. 15). Weighing up the options before them, they sought advice from friends, families and professionals before making the decision to continue on to study at university. They have looked at their past, their self knowledge, and recognised situations, actions and events which have and haven’t been in their control, and how they have been able to deal with them. In their first year at university they displayed varying degrees of academic buoyancy as they dealt with day to day challenges.

Academic buoyancy is reflected in their descriptions of how they worked. They had already struggled, worked hard and developed an understanding of learning and teaching strategies that work for them. Their prior and current academic results included failures – they knew what it meant to fail despite putting in their best effort, which they doubted that many other students at university understand. Rather than debilitating them the experience of failure motivated them and when they did succeed it became more meaningful.

I knew if I aimed high what I could achieve and what the feeling was like when I achieved and I think that's really important because I think a lot of people in my situation don't get that and so they feel like they 'well there's no point, because I just can't' when actually [if] they just work really hard then they can and they feel that success and they want to do it again. (George Interview 2, p.1)

The ups and downs of discovering how to adapt their learning strategies to a new environment, which also doesn't recognise dyslexia, took the first term. It required reassessment of how their characteristics of dyslexia were affecting their study at this level. Social adaptations included forgoing social and sporting activities allowed extra time for study and ensured that they remain focused and academically buoyant. As found by Brown (2009), Carroll and Iles (2006), Collinson and Penketh (2010), Fink (2007), Riddick (1999) and Pollack (2005) these students are diligent workers, internally and externally motivated to show those who doubted them that they can achieve at university; to prove to themselves that they can do it and to meet their long term career goals. Moreover, they recognised that ignorance of dyslexia in society and education works against them and to overcome this they need to be independent and persistent. The sacrificing of social activities is a reflection of this. How much influence this may have had on their long term integration into the tertiary academic culture and ultimately their grades remains to be seen.

5.6 Self Advocacy

For the students in this study prior school environments, teacher–student interactions, the level of family support, and educational approaches to students with dyslexia have played a crucial part in their development of self advocacy skills.

Self advocacy, the ability to act in self interest to meet personal goals, is an important part of self determination and a necessary skill for all students as they move from one place of learning to another. All students need to adjust to the new environment but, as Hadley (2006) found, for students with learning difficulties the adjustments become much more complex due to varied levels of understanding and acceptance of dyslexia. Yorke and Longden (2004) identify at tertiary level students as adult learners are expected to be able to: represent themselves within the new learning environment; to make appropriate course and subject choices; access the resources they need; be self

directed and motivated in learning; and be confident enough to approach lecturers, academic support, and administrators to get the levels of support that are theoretically (in policies and student information) available to assist them to complete their courses. This assumes that learners have successfully developed advocacy skills within the compulsory education system and can transfer them to their tertiary studies.

For the learners in this study this is not the case. Confidence in seeking support is an issue. There appeared to be a relationship between students having confidence to advocate for themselves or seek support, and the nature of their past school experiences. Confidence in their ability to succeed through perseverance and determination was helped when teachers who recognised learning difficulties provided encouragement. The empowering nature of supported learning helped George to develop confidence, meet external goals, and to develop the intrinsic motivation to choose a career which suited his interests and him as a learner. Self determination theory suggests that an autonomous supportive classroom enhances autonomous motivation (Vansteenkiste, Lens, & Deci, 2006). George's experience of a supportive school approach also helped him to seek out student support at university.

Claire described her experience of state school teaching as demonstrating a '*one way*' approach to learning. This presented a view of the school as being highly controlling with a lack of acceptance of individual variability. The student feels that they have little opportunity to demonstrate understanding in a meaningful way. Claire's response to her learning mirrors self determination theory that if the psychological needs for autonomy, competence, and relatedness are blocked or not encouraged within a social context like the classroom this impacts on the individual's sense of their worth as a learner and can have lasting effects (Deci, et al., 2001). Claire's view of university is contradictory, a place offering opportunity to demonstrate knowledge, but she feared it would replicate her earlier experience in lack of freedom to make choices, take away her love of learning, and limit the opportunities to demonstrate her abilities.

Universities expect students to play an active role in the teaching-learning environment. Matthews (2009) found that if students with dyslexia identify barriers to their own learning, communicate their needs to lecturers and access personal tutoring options, that special provisions or accommodations may not be needed. Herrington (2001b) suggested that social perceptions of tertiary learners as adults means they

need to be able to be resourceful to develop their own opportunities for their learning. Hunter-Carsch (2001) and Pollack (2005) found successful student learning strategies include taking courses of interest, and acknowledging strengths and learning preferences. Chanock (2007) identified that learners need to understand that institutional responses and learning support may not be based on an understanding of dyslexia. From studying the literature it appears that the more capable a student is at self-advocacy the more likely they will access academic support. Students in this study were not confident that their dyslexia would be perceived positively and supported in tertiary study in New Zealand. Consequently, they were hesitant to advocate for themselves.

For students in countries where dyslexia is recognised and supported through legislative provisions self advocacy still remains a problem. Matthews (2009) found that when students did go to seek help teachers placed a higher emphasis on helping students with physical disability. Clegg et al. (2006) , Mortimore and Crozier (2006) and Pollack (2005) found students preferred to utilise existing support systems of family and friends rather than approach teaching staff because of complexities in the process of getting help. In this study all the students had moved away from their home base to study at university and in doing so had distanced themselves from their support networks; their cultural capital which values them as individuals and learners. This left a void in their lives which required self advocacy skills to fill. Due to their dedication and commitment to studying hard at university their opportunity to establish new support networks had been severely compromised. Studying

...takes that extra bit of work and often that comes to the detriment of extracurricular activities, nights out and having coffee with friends on Sunday, you just have to say, 'no, this week I have to work'. (George Interview 1, p.9)

To seek and build new support systems, students with dyslexia need information about what support is available, access that does not impact on their need to utilise their study time effectively, and confidence that there is understanding of what it means to learn with dyslexia within the New Zealand tertiary system.

Even if students have negotiated the institutional settings and found the correct academic support system new challenges await in filling the void left by loss of cultural capital. They need to advocate and prove themselves by providing evidence of dyslexia from an educational psychologist, or have tests done at their own expense, before help

can be provided. This means a semester or more of study may have passed before any support can be provided (Rowan, 2010). Rice and Brooks (2004) identify in The Singleton Report 1999, that 50% of students with dyslexia in the United Kingdom are not identified by student support until partway through their tertiary studies. In Australia, this figure averaged 30%, with 50% in Queensland (Chanock, 2005). While the UK and Australia have legislative systems to recognise and support learners with dyslexia, students still find the process laborious and time consuming (Chanock, 2005; Pollack, 2005). Student's anxiety levels over the availability of the type of support for course work still remains high after the need for intervention is established (Carroll & Iles, 2006; Reed, et al., 2009). Brown (2009) found students work harder and put in more effort, determinedly empowering themselves against the label of having a learning disability.

There appears to be a need to provide students with dyslexia with the opportunity to develop the necessary skills to advocate on their own behalf while in secondary school or earlier. Current views of dyslexia in New Zealand and lack of support, means these students are not being helped to develop to their potential. Knowledge of the types of assistance that should be available within education and how to access these would help to build confidence. To ensure full educational opportunity in tertiary study is available to them from the start of their course, these students need to be resourceful. Providing space on enrolment forms for learners to identify support they might need, and for this information to be disseminated to teaching and learning staff, means that follow-up contacts with the students can be made. Students can then be confident that disclosing their learning difficulties will be in their best interest.

5.7 Discourse of Dyslexia

The discourses of dyslexia and literacy held by the student, their families, peers, teachers, administrators, support staff and institutions, have all played varying roles in each stage depicted in the model. Herrington (2001a) (2001b) found that the views of dyslexia at a societal and individual level are dependent on the social construction of literacy and illiteracy. For society literacy is synonymous with intelligence. If there are limitations to literacy these are seen as limitations to intelligence. Students with dyslexia don't fit the usual teacher expectations of intelligent students and may not

respond to teaching-learning approaches, leaving teachers uncertain about the student's academic ability (Chanock, 2005).

The discourse presented to the students during recognition of their learning struggles and their experiences as learners in compulsory education, shape the student's identity and their transition to study at tertiary level. Their perceptions of their capabilities are often moulded by the current emphasis on literacy skills of grammar and spelling in education.

It's just certain things I can't do that other people can do. Well, things like spelling. (Jack Interview 1, p.4)

You think you've done a good [piece of work] then it's like 'no its wrong, you've got to do it this way! (Claire Interview 1, p.6)

Claire's socio-cultural discourse of dyslexia sees the barriers in front of her learning as a consequence of the lack of acceptance of diversity of learners by teachers. She has developed this understanding from her experiences of schooling and the information on dyslexia she has found in the last few years. She sees that if as a learner she was able to use her creativity including the use of the creative nature of language, drawing and visualisation, she would be a stronger more successful academic. In the reconciliation stage she sensed that she was always fighting against the norm. Now in the academic buoyancy and perseverance stage she is an adaptive learner, as she moulds her creativity to suit and be used in her course work, where she can. Given the opportunity to draw and orally present her ideas she is able to present a complex analysis in picture. By acknowledging the barriers she can't control Claire continues to gain confidence through her creative strengths.

George's cognitive educational affective discourse means that, in the academic buoyancy and perseverance stage, he already recognises that his learning difficulties aren't going to go away. He can continue to rise to the challenges encountered with literacy in learning in his specialist area by tackling them head on. George has developed this discourse from his family's experience with dyslexia. Other studies show that institution and teacher's discourses influence the way in which teacher-learner interactions are approached and understanding of the context within which student support is offered (Hunter-Carsch & Herrington, 2001; Matthews, 2009; Zambo, 2004). George considers the lecturer as the subject expert and focuses on acquiring and

understanding course content through this person; approaching them to clarify understanding. George's discourse is positively framed acknowledging that there is more to him as a person than just dyslexia.

Jack's recognition and understanding of dyslexia is quite new. His sources of information appear to have come from the medical discourse. If dyslexia is viewed from within the medical discourse then the tone is set for the approach to the student – that it is an individualised problem, that there is an impairment and that there are solutions to the problem (Matthews, 2009). Jack views dyslexia as an impairment that can be overcome through hard work. This is a common theme in studies set within a medical discourse which places the weight of responsibility for improvements in learning on the student and student motivation (Lyon, et al., 2003; Shaywitz, 2003).

Cottrell (2003) found students in higher education rarely have their own understanding of dyslexia, what it is and what it means for them as adult learners. Pollock (2005) found students in the UK have been influenced by the discourse of dyslexia used in testing under legislative requirements, presented and explained to them by medical, educational or psychological experts. In New Zealand the general lack of understanding of dyslexia by teachers means the literacy/illiteracy discourse of intelligence is often applied to understandings of dyslexia in schooling. This study shows that at secondary school some teachers are prepared to look beyond the limitations of literacy and recognize academic ability. This change in approach has helped these students build their own discourses.

A range of studies has found that institutional responses to dyslexia are linked to teachers' variations in understandings or discourse and awareness of dyslexia (Chanock, 2005; Griffin & Pollack, 2009; Hunter-Carsch & Herrington, 2001). Consequently, despite their expectations of higher academic standards at university the students in this study had little confidence that assistance in learning would be available. Therefore they remain reluctant to approach learning support services and lecturers. No literature on New Zealand tertiary sector's current understanding of dyslexia and the means to identify, acknowledge and support students was found during this study. This is an area which needs further work.

In other studies students' lack of self advocacy is reflected in the prevailing societal discourse of dyslexia. This is seen in students' reluctance to disclose their dyslexia as a disability; or where dyslexia is viewed as a hidden disability and disability provisions are targeted to visible disabilities (Fuller, et al., 2004; Garrison-Wade & Lehmann, 2009). In New Zealand dyslexia is not included under disabilities or any other form of legislation so there is no requirement for tertiary providers to seek information on dyslexia. This institutional barrier creates problems in self advocacy. Neither Claire nor Jack found any place on the enrolment form where they felt they could mention their dyslexia. George and Jane still used the 'disabilities' section on the enrolment form and both hoped that the information supplied would be passed on to lecturing staff (even though they do not consider dyslexia a disability). However, this did not happen. As seen in studies in other countries (Griffin & Pollack, 2009; Matthews, 2009) application of current privacy and data protection legislation in New Zealand means that there are confidentiality barriers which restrict the transfer of information between university departments. Fuller et al. (2004) found that even if students elect to disclose their dyslexia in some other way this information is not used to assist their learning. The limitation of this potential avenue for disclosure and self advocacy is confusing for students, administrators and learning support networks. A common discourse of dyslexia and clear understanding of access to university support systems would address equity issues.

5.8 The Transition Experience

For the students in this study university is seen as a new opportunity for learning, demonstrating knowledge and moving ahead. The transition experience for these students incorporates many of the factors (decision making, student expectations, prior experiences, academic results, and student support systems) identified as being important for first year university students in the literature. More important are the influences of the weight of literacy, discourses of dyslexia, and the personal coping and learning strategies of the student. Being in an institution of higher education students' hope academics will have a better understanding of student diversity and for the type of institutional barriers they encountered in compulsory education to be removed or more flexible. Paying for their education they see themselves as having a right to access the resources necessary to succeed.

Recent changes in tertiary funding in New Zealand and the shift in focus to determine access and continuation on past grades (New Zealand Ministry of Education, 2010) will severely restrict the university career choices for students whose secondary school grades don't reflect their capabilities. Despite the suggestion by Shulruff et al. (2008) and Ussher (2007, 2008) that academic performance at secondary school is a good indicator of transition to and attainment in tertiary study for most students, the widespread application of policies based on this assumption is likely to exclude students with dyslexia from university and other tertiary studies. Like students in other countries, these four students with dyslexia are proving that with appropriate course choices, time to work at their own pace and in manner that suits them, they are highly capable of success at university (Fink, 2007; Griffin & Pollack, 2009). Their potential as academics is still untapped as they learn and work without additional support. Their current achievement is a reflection of their determination to work hard, and their persistence to prove that they can be high achieving students.

Rather than limiting course numbers a challenge for tertiary education is to use wider and more inclusive teaching practice and assessments that brings benefits to all academically capable students (Chanock, 2007). Internationally students with dyslexia identify that the biggest barriers to learning at university are: within the lecture room, lack of co-operation of lecturers in preparedness to understand learning difficulties, assessment practices, and administrative difficulties in accessing learning facilities (Fuller, et al., 2004; Mortimore & Crozier, 2006; Stage & Milne, 1996). Likewise the students in this study were working around these sorts of issues by making adaptations or by-passing people and systems that should be working for them.

5.9 Conclusion

A number of writers note that most students with dyslexia require help to develop independence skills to prepare for tertiary study (Hunter, 2009), to be able to self advocate (Clegg, et al., 2006; Hadley, 2006; Yorke & Knight, 2004), understand their strengths and weaknesses, and to understand their physiologic, cognitive and emotional requirements for successful study (Shaywitz, 2003). The students in this study have exhibited great determination, academic resilience, academic buoyancy and persistence as they work towards and in tertiary study. They have successfully developed as independent learners with varied levels of understanding of their dyslexia

and the implications for learning. What they have not been able to develop is the self advocacy skills that would let them participate fully in higher education, and the confidence that if they were to advocate, that there would be understanding and support available. The discourses of dyslexia held by the students, teachers, and institutions each play an important part in the student's acceptance of their capability as learners.

Transition to first year study at university for students with dyslexia is not without problems, however the overriding impression from this study is that it is the personal characteristics of the students, their responses to prior learning experiences, their development of learning strategies, and their recognition and understanding of dyslexia that determine whether the transition will be successful or not. The use of the constructivist grounded theory methodology has enabled a clearer and more personal understanding of the factors important in the transition to the first year of study at university in New Zealand for these students with dyslexia.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATION

Now that you have finished your grounded theory study, consider the purposes it serves. Your original purposes may have been immediate: to use the grounded theory method in practice to do the job before you. Other purposes may have remained under the surface while your pressing project and involvement in the process narrowed your attention. In a larger sense, what purpose does your grounded theory serve? (Charmaz, 2006, p.184)

6.1 Introduction

This chapter presents the conclusions reached in exploring the research question on the effect of prior learning experiences of students with dyslexia as they transition to tertiary study in New Zealand using the grounded theory methodology of Charmaz (2006). It draws conclusions based on the findings of this study of four students' experiences and suggests areas that teachers, learning support and educational policy makers consider in developing better ways to include successful learners with dyslexia within tertiary education. The chapter also serves the purpose as described by Charmaz (above) to make suggestions for change and for further research in this area.

6.2 Conclusions from this Study

- Lack of self determination in education restricted the opportunities for these students with dyslexia to gain some foundational concepts and to progress at their own speed. Some students with dyslexia perceive teaching in some New Zealand classrooms as too controlling and lacking understanding of the different ways in which individuals learn. This approach then leaves students with little power to advocate, to help them find the help and resources they need at university.
- Early recognition of dyslexia helped in the development of a collective and informed understanding of dyslexia by some students, their families and teachers. This allowed the implementation of appropriate learning strategies

in early schooling which empowered the student, and provided opportunities in later education.

- These four students identified the adolescent period of Years 10 and 11 as critical in developing a positive self belief in the challenges of NCEA. Improved support and outcomes within compulsory education helped some students to achieve at or near their potential; aided in appropriate course planning; and assisted in the decision making that takes place prior to moving into university study. They appear to have developed academic resilience.
- The process of decision making and transitioning to university was challenging for these students with dyslexia as they critically reflected on the messages presented in earlier education, drew on the knowledge of people they trust, and built their own perspective of who they are and what they are capable of. All students have developed some level of academic buoyancy.
- For students with dyslexia understanding of university cultural capital was a lower priority than the student's determination to succeed. These students needed to maximise time for study, as a result of the cognitive effects of dyslexia, and refrained from joining university activities.
- The students in this study do not view dyslexia as a disability and were reluctant to seek help through services provided for students with disabilities.
- A tentative model identifies four stages which seem to be important in the transition experiences of these four students. It also identifies individual characteristics which have been important in prior learning and decision making. The themes raised would benefit from further exploration and refinement through and application to other groups of students.
- The flexibility of Charmaz's grounded theory methodology suited this interpretive qualitative study of prior learning experiences of students with

dyslexia. However, as this is an iterative approach that reveals more as the researcher progresses there also needed to be more flexibility in the use of time than this masterate thesis allowed.

- This study is limited by the number of participants, the number of interviews that could be undertaken, and the range of literature reviewed. It is also captures the experiences and interaction of particular people at a particular time and place. As an initial exploration of this topic this methodological approach identified a number of areas of interest for future study to gain understanding of the characteristics of successful learners with dyslexic who have developed their own discourses and levels of support.

6.3 Wider Implications for Consideration

The findings and conclusions from this study suggest that there are implications for educators, policy makers and families of students with dyslexia, and areas for improvements to help students who struggle with literacy.

- Early identification of dyslexia in learners is essential if students with dyslexia are to be able to participate in and obtain the desired level of academic qualifications perceived as necessary in society.
- Clear lines of access to, and appropriate levels of, social and academic support for learners with dyslexia needs to be developed within the first year at university. Pre-entry information could identify the support networks available to students with dyslexia using inclusive language.
- Students who struggle with learning would benefit from developing self advocacy skills to identify how to go about seeking assistance. A wider understanding of, and support for, students with dyslexia can create a positive learning environment that will benefit most students.
- Networks which recognise, assist and support students with dyslexia through important decision making stages in compulsory education can affirm students as learners as they move into adulthood.

- The development of social learning networks within tertiary environments that encourage the sharing of learning strategies and support learners with dyslexia is likely to enhance educational outcomes.

6.4 Further Research

This study provides a glimpse of the issues faced by four students with dyslexia in New Zealand within the compulsory and higher education systems and suggest some areas for further research.

- The tentative model presented in this study requires further development, refinement and comparison with the experiences of other students with and without dyslexia.
- A study of the effects of the development and implementation of support networks for students with dyslexia in the transition from secondary school to tertiary study would help to identify if changes can improve student completions.
- A study of the discourses held by teaching and learning support staff on dyslexia and other literacy and numeracy difficulties would identify gaps in understanding between students and teachers.
- A longitudinal study which follows the academic progress of students with dyslexia, and looks at the development of learning strategies and interactions with teachers through secondary and into tertiary education would help in determining whether academic qualifications at secondary school are a good indicator of tertiary attendance and completion for students with dyslexia in New Zealand.

Concluding Comments

A poster from Ako Aotearoa – National Centre for Tertiary Teaching Excellence on my office wall states “When students cannot learn the way we teach we have to teach the way **they** learn”. This study sought to explore the prior learning and transition

experiences of students with dyslexia; to see what decisions they made when considering their future study; to look at their understanding of dyslexia; and to learn from their experiences of the transition process. The development of a tentative model was the result of my interpretation of these experiences and provides a point for further discussion and exploration.

Over the period of this study I have learnt a lot about students with dyslexia and my own teaching and learning practice as a consequence of hearing their stories. These students also have a wealth of knowledge about teaching and learning practices and study skills which work and don't work which have influenced their progress thus far. They are inspiring people. Some of their ideas I have been able to share with other learners who struggle with literacy. They have reminded me that there are teachers with understanding of dyslexia and such enthusiasm for their students to succeed that they, in turn, inspired these students to overcome the obstacles. Through their eyes and the process of writing up this research I have been able to review the assumptions I hold about students and student learning, and to present their stories. Through their eyes, we have widened the knowledge educators can have about students who learn with dyslexia and student transition to university. This is the richness of this experience. As Claire said "It's not all black and white".

APPENDICES

Appendix A: Ethics Approval



Massey University

1 July 2009

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PN241

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Dear Linda

Re: HEC: Southern B Application – 09/30
Discourse of dyslexia and the transition of students with dyslexia into the first year
of tertiary study in New Zealand

Thank you for your letter dated 30 June 2009.

On behalf of the Massey University Human Ethics Committee: Southern B I am pleased to advise you that the ethics of your application are now approved. Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Dr Karl Pajo, Chair
Massey University Human Ethics Committee: Southern B

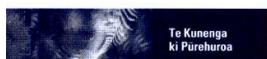
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School of Educational Studies
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Ms Roseanne MacGillivray
Graduate School of Education
PN900

Massey University Human Ethics Committee
Accredited by the Health Research Council



Appendix B: Type of Questions that may be asked in the Interviews

Discourse of dyslexia and the transition of students with dyslexia into the first year of tertiary study in New Zealand

Type of Questions that may be asked during the interviews

- When and how was dyslexia identified?
- What words or phrases or ideas would you use to describe what it is like to learn with dyslexia?
- What differences (if any) do you see between the way you learn with dyslexia and the way others learn?

- What was it like learning with dyslexia at secondary school?
- What sort of support/help/encouragement did you have for your learning in secondary school?
- What do you think the understanding of secondary teachers and learning support people of dyslexia was?

- How did your learning experiences at secondary school influence your decision to study at university?
- Did your secondary school experiences influence your selection of courses at university? If so how?
- Why have you chosen to continue in tertiary study?

- What were the types of support systems offered to you to help with your learning in secondary study?
- How were these support systems set up?
- What was the effect of having these support systems on your learning and perceived success?

- What sort of learning support do you use in tertiary study now?
- How did you find out about or set up the learning support systems that you use now?
- Who are the people who support you now in your learning at university?

Appendix C: British Dyslexia Association Checklist

The British Dyslexia Association

Adult Dyslexia Checklist.

Read the questions carefully and be as honest as you can when answering them.

Please answer **Yes** or **No** to each question. If in doubt select the answer that you feel is true most often.

	Yes	No
1. Do you find difficulty telling left from right?		
2. Is map reading or finding your way to a strange place confusing?		
3. Do you dislike reading aloud?		
4. Do you take longer than you should to read a page of a book?		
5. Do you find it difficult to remember the sense of what you have read?		
6. Do you dislike reading long books?		
7. Is your spelling poor?		
8. Is your writing difficult to read?		
9. Do you get confused if you have to speak in public?		
10. Do you find it difficult to take messages on the telephone and pass them on correctly?		
11. When you say a long word, do you sometimes find it difficult to get all the sounds in the right order?		
12. Do you find it difficult to do sums in your head without using your fingers or paper?		
13. When using the telephone, do you tend to get the numbers mixed up when you dial?		
14. Do you find it difficult to say the months of the year forwards in a fluent manner?		
15. Do you find it difficult to say the months of the year backwards?		
16. Do you mix up dates and times and miss appointments?		
17. When writing cheques do you frequently find yourself making mistakes?		
18. Do you find forms difficult and confusing?		
19. Do you mix up numbers like 95 and 59?		
20. Did you find it hard to learn your multiplication tables at school?		

Source: The British Dyslexia Association. (2006, 27/02/06). *The British Dyslexia Association I think I might be Dyslexic - Adult Dyslexia Checklist*. Retrieved 6 March, 2008, from www.bdadyslexia.org.uk

Appendix D: An Example of the Relationship between the Transcript, Coding, Categories and Research Questions

Line by line Coding on first analysis	Transcript	Category	Research Question
<p>Takes longer to understand</p> <p>Go through a few times to understand</p> <p>Take time to understand</p>	<p>Obviously it takes me longer to sort of comprehend each thing and – what most people do...</p> <p>... Often, if a lecturer says something people can get it right, people can understand it straight off and, but I have to go through it a few times just to get, just to understand it and I don't know if that's just me being dyslexic or just not being as smart as other people. But I do have... it does take... I do have to take time to understand things properly.</p>	<p>Personal awareness of dyslexia and strategies for learning</p>	<p>How have these experiences affected these students as they transition to first year of university study in New Zealand?</p>

Appendix E: Information Sheet

*[Print on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]*

Discourse of dyslexia and the transition of students with dyslexia into the first year of tertiary study in New Zealand

INFORMATION SHEET

My name is Linda Rowan. As part of my Masters in Education (Adult) at Massey University I am looking at the learning experiences of students with dyslexia and the decision to study at university.

What is this purpose of this study?

- To look at how past learning experiences have affected the choices of students with dyslexia as they begin university study in Aotearoa/New Zealand.
- To help broaden the knowledge of dyslexia in Aotearoa/New Zealand by reporting on the understandings and experiences of learners with dyslexia.
- To contribute to the body of knowledge on student transition to university study.
- To identify changes that might be made by educational policy makers and institutions to make the transition to university easier for students with dyslexia.

You are being invited to participate in this study.

Who can take part in the study?

To participate in this study you need to be:

1. A student at university.
2. In your first year of study.
3. Have dyslexia.
4. Have attended secondary school in New Zealand.
5. Taking a course that does not include the Communication in Science paper 119.155

What will happen?

Students will contact me - the researcher - by email, text or phone. I will give you a brief verbal and/or email outline of the study and we will work out how further contact will be made.

I will send you - as a potential participant - an Information Sheet and Consent Form for you to read, and if you want to continue you will sign these and post them to me to confirm that you wish to continue in the study. I will organize with you a time and a place that suits you for the first one hour one-to-one semi-structured interview. I will send by email an outline of the types of questions that might be asked in the interview for you to read before the interview take place.

At the interview a digital recorder will record our conversation. I may take some notes which will also form part of the data collected. After the interview the recordings will be transcribed and I will look to see if there are further questions I might want to ask. I will then ask you if you wish to take part in a second one hour semi-structured interview. We will arrange and conduct a second interview at a time and place that suits you.

How much time will this take?

Altogether about two and a half hours. This estimate includes:

- Reading the Information Sheet, Consent Form and Confidentiality Agreement;
- The initial one hour (approximately) interview; and
- The follow up one hour (approximately) interview.

Do I get paid for participating in this study?

No.

What if I find it stressful or upsetting to talk about my experiences?

During the interview we will stop the interview and take a break. You can decide if you wish to continue with the line of questioning.

If you require further help I will put you in contact with staff with appropriate counseling skills through the Massey University Student Health Services.

What happens to the data the collected and how will my identity be protected?

I will analysis the transcripts and notes using a method called the grounded theory approach of constant comparative analysis, which allows me to identify themes or ideas. I will send you a summary of the findings of the study. These themes will be presented and discussed in the thesis, conference presentations and academic papers.

At our first meeting you will choose a pseudonym (another name) that we will use during the interview and on all documentation (thesis and papers) that is produced out of the study. The only people who will have access to any information with your own name on it are you, me and my supervisors.

All the documentations and the voice recordings will be kept in a secure manner and be disposed of by my supervisors after five years.

What are my rights?

You are under no obligation to join this study. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study (prior to the first interview);
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded;
- ask for the recorder to be turned off at any time during the interview;
- bring a support person with you to the interview; and
- to request a translator if English is not your first language.

If you want more information about this project or to talk to my supervisors please contact use. Our details are:

Researcher

Linda Rowan

Phone or text – xxxxx

Email – l.m.rowan@massey.ac.nz

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Massey University Ethics

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 09/30. If you have any concerns about the conduct of this research, please contact Dr Karl Pajo, Chair, Massey University Human Ethics Committee: Southern B, telephone 04 801 5799 x 6929, email humanethicsouthb@massey.ac.nz

Appendix F: Consent Form

[Print on Massey University departmental letterhead]

[Logo, name and address of Department/School/Institute/Section]

Discourse of dyslexia and the transition of students with dyslexia into the first year of tertiary study in New Zealand

PARTICIPANT CONSENT FORM - INDIVIDUAL

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered clearly, and I understand that I may ask further questions at any time.

I agree to the interview being sound recorded.

I wish/do not wish to have a file of the digital recordings of our conversation returned to me.

I wish/do not wish to have data placed in an official archive.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature:

Date:

.....

.....

**Full Name -
printed**

.....

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