

**Exploring adolescent literacy experiences through
vocabulary learning and self-efficacy in reading and
writing**

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Abstract

Vocabulary knowledge is an essential literacy skill for secondary school students, as it allows them to comprehend texts and express complex ideas across their subjects. High levels of self-efficacy in reading and writing are also fundamental for secondary school students' literacy learning, as self-efficacy influences their motivation and achievement in specific tasks in the classroom. This thesis sought to explore these two aspects of literacy—vocabulary learning, and self-efficacy in reading and writing - from the perspectives of secondary school students. The purpose of this study was to gain greater insight into what is effective teaching and learning for students' vocabulary acquisition, and for improving students' self-efficacy in reading and writing, across all curriculum areas. This study was a form of practitioner research, as I am a secondary school teacher.

This small-scale research was qualitative in nature, and the main source of data was interviews with secondary school students. Six Year 10 secondary school students were interviewed about their experiences of vocabulary learning, reading and writing in their classrooms. Additionally, the participants sat a test to measure their vocabulary size, completed a short self-efficacy questionnaire, and their results from two previous reading tests were also collected. The data analysis generated themes that describe students' experiences in relation to vocabulary learning, reading and writing in the classroom. The process of analysing the data also drew attention to the personal and unique nature of the experiences in the classroom for each individual participant.

This study found that whilst a range of evidence-based activities and strategies are being used for vocabulary learning in their classrooms, students would benefit from further support with their vocabulary acquisition. The findings also show that students who have low reading or writing self-efficacy need more opportunities and support with specific reading or writing activities. Additionally, the data analysis identified inequities in structured school support for students' literacy learning. The findings of this study present implications for school leadership, as well as for teachers. They suggest that teachers may benefit from professional development around various aspects of teaching and learning in the classroom,

and highlight that effective processes need to be in place to provide support for students with literacy learning needs, to ensure equitable outcomes for students.

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Table of contents

Abstract.....	ii
Acknowledgements.....	iv
Table of contents	v
List of figures.....	viii
List of tables	viii
Chapter 1: Introduction	1
1.1 Rationale	1
1.2 Research questions	3
1.3 Practitioner research	4
1.4 Key terms and definitions	5
1.5 Overview of thesis format.....	7
Chapter 2: Literature review	9
2.1 Vocabulary knowledge and acquisition	9
2.1.1 Models of reading and writing.....	10
2.1.1.1 The Simple View of Reading.....	10
2.1.1.2 The Component Model of Reading.....	11
2.1.1.3 The Simple View of Writing.....	13
2.1.2 The relationship between vocabulary development and reading comprehension.....	14
2.1.3 The Matthew effects in reading and vocabulary	17
2.1.4 The importance of vocabulary size	17
2.1.5 The importance of vocabulary instruction for secondary school students	19
2.1.6 Cross-curricular and subject-specific vocabulary learning.....	20
2.1.7 The relationship between vocabulary knowledge and writing.....	24
2.1.8 Vocabulary and self-efficacy	25
2.2 Self-efficacy	26
2.2.1 Self-efficacy, motivation and achievement	27
2.2.2 Self-efficacy in adolescence	27
2.2.3 Self-efficacy in reading.....	29
2.2.4 Self-efficacy in writing.....	29
2.2.5 Improving students' self-efficacy in reading and writing.....	30
2.3 Summary of the literature, and gaps in the research	31
Chapter 3: Methodology.....	33
3.1 Qualitative practitioner research.....	33

3.1.1 Interpretivism.....	33
3.1.2 Social constructionism	34
3.1.3 Phenomenology	35
3.1.4 The use of qualitative and quantitative data	35
3.2 Methods.....	36
3.2.1 Research setting and selection and recruitment of participants.....	36
3.2.2 Qualitative data collection	39
3.2.3 Quantitative data collection	42
3.2.4 Data analysis	43
3.2.4.1 Interview transcription and thematic analysis.....	44
3.2.4.2 Narrative profiles	46
3.3 Trustworthiness and validity.....	47
3.4 Ethical issues	48
3.4.1 Relationships and ethical principles.....	49
3.4.2 Confidentiality and anonymity.....	52
3.5 Summary	53
Chapter 4 – Findings: Participants’ literacy levels, group profile, and individual narrative profiles	54
4.1 Participants’ literacy levels	54
4.2 Group profile.....	56
4.3 Individual narrative profiles	58
4.3.1 Narrative profile: Arya	59
4.3.2 Narrative profile: Jeanette.....	61
4.3.3 Narrative profile: Tom.....	63
4.3.4 Narrative profile: Ashley	65
4.3.5 Narrative profile: Olivia.....	67
4.3.5 Narrative profile: Poppy.....	70
4.4 Summary	73
Chapter 5 – Findings: Thematic analysis.....	75
5.1 The challenges of learning new vocabulary.....	76
5.2 The differences across the subjects.....	79
5.2.1 Vocabulary	79
5.2.2. Reading	80
5.2.3 Writing	82
5.3 The pressure of assessments	85
5.4 The importance of teacher-student relationships.....	87
5.5 Having dyslexia.....	89

5.6 Formal and informal support for students' literacy learning	91
5.7 Building students' confidence in reading and writing	94
5.8 Summary	97
Chapter 6 – Discussion of findings, conclusions and implications.....	99
6.1 Vocabulary learning and development.....	99
6.1.1 Key findings and conclusions	99
6.1.2 Implications for teacher practice	101
6.1.3 Implications for schools	102
6.2 Self-efficacy in reading.....	103
6.2.1 Key findings and conclusions	103
6.2.2 Implications for teacher practice	105
6.3 Self-efficacy in writing.....	106
6.3.1 Key findings and conclusions	107
6.3.2 Implications for teacher practice	108
6.3.3 Implications for schools	109
6.4 Teacher use of quantitative data	110
6.4.1 Key findings and conclusions	110
6.4.2 Implications for teacher practice.....	111
6.4.2 Implications for schools.....	111
6.5 Structural support for individual students.....	112
6.5.1 Key findings and conclusions	112
6.5.2 Implications for schools	113
6.6 Learning about recruiting adolescent participants for research	114
6.6.1 Key findings and conclusions	114
6.7 Summary	115
Chapter 7: Conclusions	116
7.1 Implications for further research	116
7.2 The strengths and limitations of this study	117
7.3 Concluding remarks	120
Reference list	122
Appendices.....	137
Appendix 1: Vocabulary Size Test: Version A, page 1	137
Appendix 2: Self-efficacy questionnaire	138
Appendix 3 – Information sheets and consent Forms	139
Appendix 4: Topics, questions and prompts for semi-structured interviews.....	152
Appendix 5: Excerpt from qualitative data analysis	154

Appendix 6: Ethical approval from ERHEC..... 156

List of figures

Figure 1: The Simple View of Reading.11
Figure 2: The Component Model of Reading.....12
Figure 3: The Simple View of Writing.13
Figure 4: The Increasing specialisation of literacy development.21

List of tables

Table 1 - Quantitative Data: Assessment Results55

Chapter 1: Introduction

1.1 Rationale

The ability to read and write well is fundamental for students in today's world. Literacy skills are crucial to all learning areas in the Aotearoa-New Zealand school curriculum, and our increasingly digital environment requires proficiency with print, together with a variety of other skills and strategies. To a large extent, literacy skills determine students' academic success in the education system, and poorly developed reading and writing skills have far-reaching social, emotional and economic consequences for individuals, their families and society (Reid, Elbeheri & Everatt, 2016). Students' literacy skills have a strong influence on their self-esteem; students who struggle with literacy are more likely to develop a lack of confidence in their reading and writing abilities, and low self-efficacy in reading and writing tasks (Galbraith & Alexander, 2005). The purpose of this study is to contribute to the body of research on the topic of adolescent literacy. While 'literacy' is a broad term that encompasses a wide range of skills, this research will focus on particular aspects in the field of literacy: vocabulary acquisition, and self-efficacy in reading and writing.

I have worked as a secondary school English teacher since 2005. During this time, I have taught a significant number of students who have struggled with reading and writing. These students often lack enthusiasm for reading longer, or more sophisticated texts, and their vocabularies are often limited. Not only do they demonstrate a reluctance to engage with written texts, but they also find writing an arduous process. The challenges these students face appear to have an impact on their motivation, confidence, self-esteem, and self-efficacy as learners. During my involvement with the Secondary Literacy Project (Ministry of Education, 2013), I realised that many teachers in subjects other than those I taught were struggling to get their students to engage with reading and writing, and it seemed that students' limited vocabulary knowledge was having an impact on their learning and achievement. This was exemplified by the lively discussion amongst students, teachers and the general public, in November 2018, when the word 'trivial' was used in a NCEA Level 3 History examination paper, confusing many students who did not know the meaning of the word (Franks, 2018). This conversation helped to illustrate just how fundamental vocabulary

acquisition and knowledge is for students' comprehension of written texts, and academic success, in secondary school.

This increase in the complexity of language used in secondary school classrooms is a challenge for many students. By the time New Zealand students are in Year 11, they are expected to be reading and writing at curriculum level 6; however, the 2015 PISA study showed that over 17 percent of 15 year-old New Zealand students were reading at such a low level that their "reading skills were so poor they were unlikely to support their learning" (May, Flockton & Kirkham, 2015, p. 18). Supporting students in subject-specific literacy learning through reading, writing and vocabulary acquisition is vital, as so much of secondary school students' learning is framed around their subjects. The New Zealand Curriculum recognises the importance of vocabulary teaching and learning, stating that "For each area, students need specific help from their teachers as they learn...the specialist vocabulary associated with that area" (Ministry of Education, 2016, p. 16). There is extensive research on the importance of vocabulary at secondary school. There is also a significant body of research around the importance of self-efficacy in reading and writing for students' achievement at school. This research literature is explored in Chapter 2. Vocabulary and self-efficacy in reading and writing are essential aspects of students' literacy learning that must be addressed if New Zealand secondary schools are to close the gap between successful and struggling readers.

This study will provide insight into secondary school students' experiences of vocabulary learning in the classroom in a particular school context, and explore how they perceive and understand their self-efficacy in reading and writing, with the intention of informing teacher practice to support subject-based literacy learning. This research is a small-scale, practitioner research study that focuses attention on the subject-specific literacy demands of learning in secondary school classrooms within one school, with potential implications for my own practice as a teacher, that of my colleagues, and more broadly, secondary school teachers in general. While there are numerous studies on the connection between reading and vocabulary, and on vocabulary acquisition for preschool, primary school and students for who English is their second language, there are very few qualitative studies that investigate vocabulary learning from secondary school students' perspectives. Historically,

students have not often had many opportunities to be heard by education professionals, nor be involved in pedagogical decision-making; there is, however, increasing acknowledgement that students' perceptions of their learning experiences are valuable for researchers, for teachers, and for policy-makers (Cook-Sather, 2013).

The purpose of this study was therefore to give 'voice' to the students, in order to gain insight and to understand their experiences of vocabulary learning, reading and writing in the secondary school classroom. Student voice provides credible information that allows educators to assess whether they are providing relevant and appropriate learning opportunities for our students' literacy learning in the classroom. The fundamental principle underpinning this research study is that it is imperative that students are given the opportunity to share their experiences with those who teach them in the classroom. By engaging in practitioner research, educators can gain greater insight into what is effective teaching and learning for vocabulary acquisition, and for improving self-efficacy in reading and writing, from the perspectives of the students.

In undertaking this research study, I hoped that it might ultimately inform teachers across all curriculum areas about students' vocabulary learning, and reading and writing, in the classroom. I also hoped that this study might result in myself and colleagues adopting practices in the future that cater more effectively for the literacy learning needs of our students. It is important that teachers understand the needs of their students, and it is important that we question to what extent these needs are already being met in our classrooms, by our schools, and by the education system.

1.2 Research questions

The purpose and focus of this research study was to explore Year 10 students' experiences of vocabulary learning in the classroom, and how they understand their self-efficacy in reading and writing, with the intention of informing teacher practice to support subject-based literacy learning. The overarching research question for this study is:

How can our understanding of students' vocabulary learning and self-efficacy in reading and writing inform teacher practice to support subject-based literacy learning?

This is supported by the following sub-questions:

1. What are the students' experiences of vocabulary learning and development at secondary school?
2. How do the students perceive and understand their self-efficacy in reading and writing?

1.3 Practitioner research

This study fits broadly into the category of practitioner research (Cochran-Smith & Donnell, 2006) in that it relates to my own work and practice as a secondary school teacher. The study is focused in a single school setting, to enable in-depth exploration of the research questions, as well as to ensure manageability for a solo Master's thesis researcher. This is a focused study with a small sample to highlight and theorise learner experiences of vocabulary acquisition, and reading and writing, which leads to further questions regarding adolescent students' vocabulary and literacy learning, and their self-efficacy in reading and writing.

The research was undertaken in the school where I am currently employed. Cullen (2005) argues that all educational researchers appear on an insider-outsider continuum. At the 'insider' end of the continuum a teacher, or group of teachers, researches their own teaching practices. I identify as an 'insider' insofar as I am an employee at the site of research, and an English teacher, for whom literacy learning is a central part of my work. I was not, however, teaching students at the same time as undertaking the research. One of the major advantages of carrying out qualitative research in this capacity was that the research process did not inhibit teaching and learning by confusing the roles of teacher and researcher, and minimised any impact my presence as the researcher could have had on

what happens in the classroom. My focus was solely on the research, whilst the teachers' foci were the teaching and learning.

Nonetheless, my position in the research as an 'insider' affected every phase of the research process; the initial questions around the focus of this research, and the approach I chose to take, arose as a result of my experiences as a teacher in the secondary school classroom. I also had significant knowledge and perspective of the setting in which the research took place, which is a recognised advantage for practitioner research (Cochran Smith & Lytle, 2009; Hara, 1995), as I was already familiar with both the systems and the staff in the school. I was able to draw upon my experiences as a classroom teacher of the school when conducting the research and analysing the data. As the data collector and interviewer, I was one of the primary research tools in this study, and my viewpoint was an important factor in the research process. However, it is important to acknowledge that there are a series of potential ethical issues inherent in practitioner research, as a result of the "unique practitioner-researcher duality" (Nolan & Vander Putten, 2007, p. 402). I worked to mitigate ethical issues during the research process. The ethics of this study are explored in further depth in Chapter 3.

1.4 Key terms and definitions

In the field of literacy, there is a range of specialist language. Key terms and acronyms used in this thesis are explained in this section.

Bring Your Own Device (BYOD) – the practice of allowing students to use their own computers and other digital devices at school for learning purposes.

CEM entrance test – a test, developed by the Centre for Evaluation and Monitoring (CEM) at the University of Canterbury, that assesses English, mathematics and reasoning skills, and is used to assess achievement for pupils entering intermediate and secondary schools.

Cross-curricular literacy – when teachers and students are taught how to use generic reading comprehension strategies across all curriculum areas.

Decoding – the use of sound-letter correspondence rules in an alphabetic language, such as English, to read words on the page; decoding is also often referred to as ‘word recognition’ (Gough & Tunmer, 1986).

Decontextualized language - language that is used by a writer to convey very particular information to the reader. It is learned by young children early on in their childhood through story narratives, and is often abstract for children (Whitehurst & Lonagan, 1998).

Disciplinary literacy - advanced literacy instruction embedded within content-area classes that focuses on the technical, specialized vocabulary and texts in a particular subject.

Etymology – the study of the origin and historical development of words.

Expository text – a text that provides factual information about a topic using a non-narrative, organizational structure.

Expressive vocabulary - the words a person can use and produce in their writing.

Formative assessment – assessments and activities undertaken in the classroom that allow teachers to evaluate the students’ learning needs and academic progress, to inform and modify teaching and learning activities. Formative assessment is usually carried out at the start or during a unit of work, and is not used for final grades (Dixson & Worrell, 2016).

Learning Centre – The Learning Centre in many secondary schools is the department that aims to provide extra learning support for students in a variety of ways. It is usually managed by the HOD of Learning Support, or Learning Support Coordinator, and is staffed by teachers and teacher aides. It provides specialised learning environments, equipment and materials to support students with specific learning needs. Assistance is available for students who need special assessment conditions for internal and external assessment, such as reader/writer assistance, or separate accommodation. Learning Centres may provide extra help, adapted programmes and one-on-one assistance, to support students’ classroom learning.

Morphology – the study of the shape and structure of words in a language. Morphology includes the analysis of the meaningful elements or structures of parts of words and language, with the smallest unit of a word that carries meaning being a morpheme (Crosson & Moore, 2017; Lieber, 2010; Shore, Ray & Goolkasian, 2013).

Narrative text – text that relates a series of events; this includes both fiction (novels, short stories, poems) and nonfiction (memoirs, biographies, news stories).

National Certificate of Education Achievement (NCEA) – the main national qualification for secondary school students in New Zealand. NCEA is recognised by employers and is used for selection into universities and polytechnics, in New Zealand and overseas.

Receptive vocabulary - the words a person can understand when reading

Self-efficacy – a person’s belief in their capability to complete tasks or produce successful outcomes.

Self-efficacy in reading – a person’s perceptions of competence in their ability to successfully complete reading tasks (Unrau et al., 2018)

Self-efficacy in writing – a person’s perceptions of competence in their ability to successfully complete writing tasks (Unrau et al., 2018)

Special Assessment Conditions (SACS) – An entitlement for extra help when a student is being assessed for NCEA, with the aim of removing barriers to ensure fair assessment. SACS are used for internal and external standards, and are organised by the HOD of Learning Support.

Summative assessment – assessments used to obtain a final measure of how much learning has taken place; they are almost always graded, and usually occur at the end of units of work (Dixson & Worrell, 2016).

Vocabulary breadth - refers to how many words a person knows; that is, the size of their vocabulary.

Vocabulary depth - refers to how well a person knows each word; that is, their deeper understanding of word meanings (Li & Kirby, 2015).

1.5 Overview of thesis format

This thesis is structured into six chapters. Chapter 1 introduces the topic and provides a rationale for the research, introducing the key research questions. It also provides a list of key terminology used in this thesis, and situates the researcher in the study. Chapter 2 reviews the literature and past research that has informed and shaped this study; in particular, it focuses on the importance of vocabulary knowledge for secondary school students, and on theories of self-efficacy. Chapter 3 describes the methodological approach taken in this research study, and includes discussion of the research setting and the

recruitment of participants, data collection and data analysis procedures. It also discusses ethical issues and trustworthiness in relation to this study.

Chapter 4 presents an analysis of the quantitative data collected during this study, and presents the narrative profiles developed for each participant. Chapter 5 focuses on the themes that emerged from the analysis of the qualitative data, the interviews. The themes are presented using students' quotations as the emphasis of analysis is on student voice. Some connections are made between the themes and the literature in this chapter too, to highlight the key findings. Chapter 6 brings together the key findings from all of the data collected, draws conclusions around the key findings, and discusses the implications of these findings and conclusions for teacher practice and for the school; in doing so, it also seeks to address and answer the research sub-questions, and the overarching research question. Finally, Chapter 7 poses possible directions for further research, discusses the strengths and limitations of the research study and draws conclusions about this study.

Chapter 2: Literature review

This chapter summarises the relevant research regarding literacy, vocabulary learning and self-efficacy that are central to this study. It attempts to provide a context for this study by outlining what researchers have already discovered and established with regard to vocabulary learning, and self-efficacy in reading and writing. Literacy is also discussed more widely in this chapter, as a combination of both reading and writing ability. This chapter is organised into two broad sections, and then further into sub-sections.

The first section begins by examining key research from over the last 40 years regarding literacy and vocabulary learning, and focusing on the importance of vocabulary knowledge for secondary school students' literacy learning. The second section of this chapter addresses research on the psychological construct of self-efficacy and the role it plays in students' motivation and literacy learning. It discusses the findings of research around self-efficacy in reading, and self-efficacy in writing. Finally, this chapter summarises the literature reviewed, highlighting areas for further research with regard to vocabulary learning and self-efficacy in reading and writing for secondary school students.

I have drawn upon international research for this review in order to highlight the key themes and issues around vocabulary acquisition, and the importance of self-efficacy in reading and writing for secondary school students. While some New Zealand-based studies are included in this review, little qualitative research has been conducted in New Zealand around secondary school students' vocabulary learning and self-efficacy in reading and writing. This study will, therefore, complement previous findings from studies around students' vocabulary acquisition and self-efficacy in reading and writing, as discussed in this chapter.

2.1 Vocabulary knowledge and acquisition

This section reviews literature around the relationship between reading and vocabulary acquisition, drawing on theories and models of reading and writing, and discusses the importance of vocabulary size. It then moves on to reviewing research on effective vocabulary instruction. Research around cross-curricular and subject-specific vocabulary

instruction in the secondary school classroom is discussed, as well as the relationship between vocabulary knowledge and writing.

2.1.1 Models of reading and writing

In order to understand the role of vocabulary in literacy, it is useful to look at theories and models that explain the mental processes used during reading and writing. Three such models are The Simple View of Reading, the Component Model of Reading, and the Simple View of Writing. These models will assist in explaining the specific types of difficulties the student-participants in this study face in their literacy learning.

2.1.1.1 The Simple View of Reading

According to this model, originally developed by Gough and Tunmer (1986), reading is the product of two main elements or processes; word recognition, also known as 'decoding', and linguistic, or oral language, comprehension. Vocabulary is one of the fundamental components of linguistic comprehension. Students need to be able to decode printed words and have good oral language comprehension skills in order to read and comprehend written text. Both of these elements are necessary for success in reading, yet neither are sufficient on their own (see Figure 1). The Simple View of Reading therefore provides a framework in which students' difficulties with reading comprehension can be identified, and highlights the key cognitive processes on which to target explicit instruction.

Word Recognition/Decoding	Good	Specific Reading Comprehension Difficulties	Normally Developing Readers
	Poor	Mixed Reading Disability	Dyslexia
		Poor	Good
		Oral Language Comprehension	

Figure 1: The Simple View of Reading. Adapted from W. Tunmer and K. Greaney, 2010, Defining dyslexia, Journal of Learning Disabilities, 43(3), p. 233.

Subsequent research has shown that the most common barriers for reading comprehension, for beginning readers, are inadequate decoding and a poorly developed vocabulary (Hempenstall & Buckingham, 2016), and that possession of a strong oral vocabulary not only helps with linguistic comprehension, but also aides in decoding, by making it easier for readers to recognise new words (Arrow & Tunmer, 2012; Tunmer & Chapman, 2012). Vocabulary, therefore, both directly, and indirectly, influences reading comprehension.

2.1.1.2 The Component Model of Reading

The Component Model of Reading, proposed by Aaron, Joshi, Gooden and Bentum (2008), extends on the Simple View of Reading, by recognising that literacy learning is affected not only by the cognitive factors of word recognition and linguistic comprehension, but also by environmental and psychological factors. Thus, the Component Model includes three domains; the cognitive domain, the psychological domain and the ecological domain (see Figure 2). According to the Component Model, students can struggle to acquire satisfactory levels of literacy skills because of deficits in any component in any one of these three domains. It is within the cognitive domain that vocabulary acquisition falls, and it is within the psychological domain that self-belief constructs, such as self-efficacy, sit.

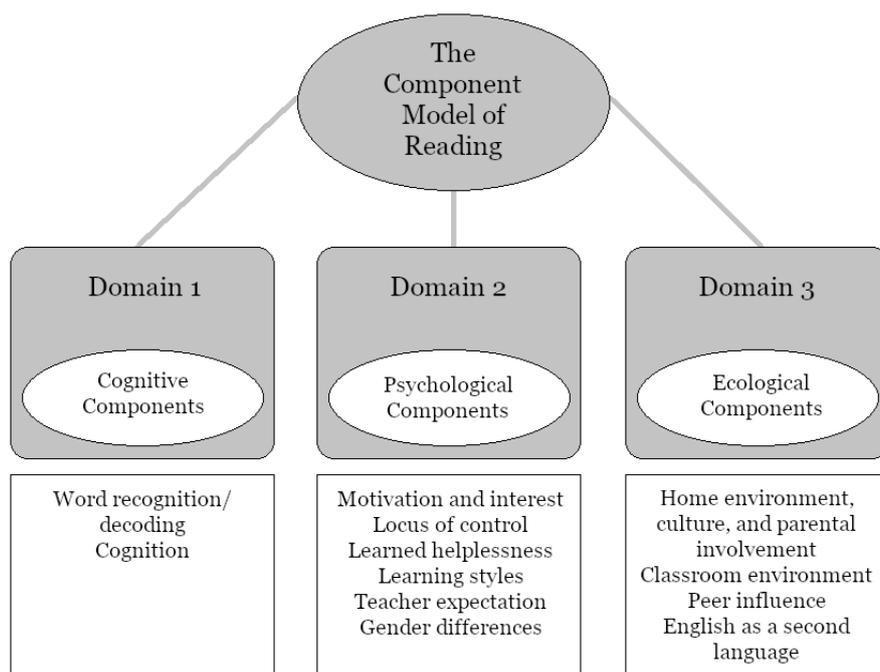


Figure 2: The Component Model of Reading.

Adapted from P. Aaron, R. Joshi, R. Gooden and K. Bentum, 2008, Diagnosis and treatment of reading disabilities based on the Component Model of Reading: An alternative to the discrepancy model of LD, *Journal of Learning Disabilities*, 41(1), p. 69.

Similar to the Simple View of Reading, the Component Model provides a framework that allows the identification of students' difficulties with reading comprehension, by pinpointing the components within the three domains that are the source of reading difficulty. The Component Model is a more comprehensive approach to identifying reading difficulties than the Simple View as reading performance can be influenced by several components within the three domains. The key difference between the two models of reading is that the Component Model recognises that factors other than linguistic comprehension and the ability to decode words can impact on students reading performance. For example, the quality of teaching instruction, or students' interest in the reading material might influence their reading in particular tasks. The Component Model is also an interactive model of reading, as the components can influence one another. The Component Model of Reading will therefore be utilised as a conceptual framework for this research, because it recognises the role of both vocabulary and self-efficacy in reading comprehension and writing, and provides an understanding of the different components involved in reading for secondary school students.

2.1.1.3 The Simple View of Writing

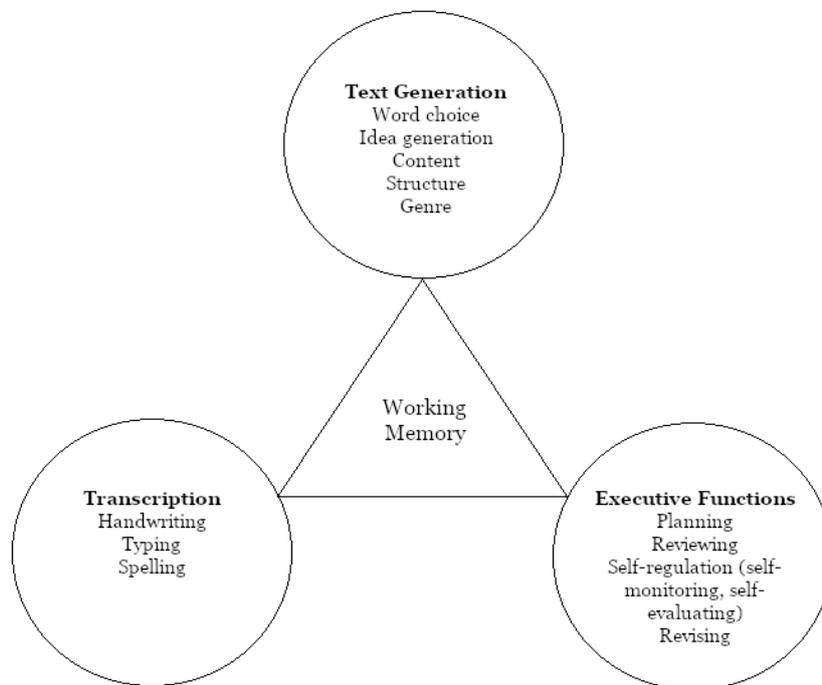


Figure 3: The Simple View of Writing.

Adapted from V. Berninger and D. Amtmann, 2003, Preventing written expression disabilities through early and continuing assessment and intervention for handwriting and/or spelling problems: Research into practice, In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of learning disabilities*. New York, NY: Guilford Press, p. 350.

The Simple View of Writing (Berninger et al., 2002) captures the four major components involved in writing composition; transcription skills, text generation skills, executive functions and working memory (see Figure 3). At the base, of the writing process are transcription and executive functions. Berninger and Amtmann (2003) argue that transcription skills, such as handwriting, punctuation and spelling, play a fundamental role in the beginning writer's ability to translate their ideas into written language, whereas the other components become more important as writing develops. As low-level transcription skills become more automatic, more working memory capacity is freed up for high-level thinking, composing and revising (Berninger et al., 2002). As students' writing skills develop, the executive functions play an increasing role in text generation and management of the writing process. The executive functions manage the planning, reviewing and revising processes involved in writing, and become more self-regulated as students become more

skilled at writing as a result of writing instruction. The component of text generation therefore represents a writer's skill in expressing and developing ideas, word choice, text structure, and genre, and can be understood as a student's collective knowledge of vocabulary, grammar, morphology, syntax, and language fluency (Berninger & Amtmann, 2003; Berninger et al., 2002).

The Simple View of Writing is useful because it highlights the importance of automaticity in students' transcription skills, and emphasises the need to explicitly teach students the use of cognitive strategies for planning, composing and revising text. Research has shown that explicit instruction in high-level writing skills brings about improvement in students' writing, and in their motivation and confidence as writers (Westwood, 2002). A study by Berninger et al. (2002) found that explicit instruction in persuasive essay writing composition results in significant learning for students, proving that practice alone is insufficient for improving a specific writing skill. The Simple View of Writing will be utilised in this study because it provides an understanding of the different components involved in writing for secondary school students, and allows identification of difficulties in these components.

2.1.2 The relationship between vocabulary development and reading comprehension

Vocabulary development occurs when previous vocabulary knowledge is built upon, and when conceptual understandings of words are extended (Kirton, 2007). In the early stages of vocabulary acquisition, children's oral vocabularies that are developed through interactions at home are of particular importance (Arrow & Tunmer, 2012). Whitehurst and Lonagan (1998) argue that an important aspect of children's oral language development is the acquisition of decontextualized language through written text. Decontextualized language builds children's vocabularies, providing a different layer of exposure to language, and improving both their oral language and reading comprehension skills (Cunningham, 2005). Vocabulary is, therefore, acquired through extensive exposure to language, especially written language (Li & Kirby).

Research has found that vocabulary knowledge is a predictor of both early and later reading comprehension (Farrall, 2012; Hempenstall & Buckingham, 2016; Snowling & Hulme, 2010;

Vellutino, Fletcher, Snowling & Scanlon, 2004; Westwood, 2008). Once readers have become efficient at decoding words, cognitive resources are freed up for text comprehension. According to Nation (2005), as children get older, reading comprehension becomes more constrained by knowledge and understanding of vocabulary, rather than by their decoding skills. In support of this, a study by Vellutino, Tunmer, Jaccard and Chen (2007) found that the relationship between vocabulary and reading comprehension skills is stronger for adolescents than for young readers. Secondary school students' vocabulary knowledge, therefore, affects their abilities to comprehend what they are reading. A review by Snowling and Hulme (2010) found that children with weaknesses in oral language, particularly vocabulary knowledge and grammatical skills, are at risk of reading comprehension difficulties; thus, adolescent students who have limited vocabularies may struggle with reading comprehension.

Research shows that there is a reciprocal relationship between vocabulary and reading (Cunningham, 2005; Murphy & Murphy, 2018; Stanovich, 1986). Once students have begun to read, they no longer rely on just oral language to learn new vocabulary words; they are able to learn them by reading them in texts (Ehri, 2014; Rosenthal & Ehri, 2008). There is empirical evidence that for older children substantial vocabulary growth occurs through reading new words in print (Ehri, 2014; Duff, Tomblin & Catts, 2015; Hempenstall & Buckingham, 2016; Murphy & Murphy, 2018; Stanovich, 1986). Chall (1987) emphasises that at around Grade 4 (Year 5 in New Zealand) many children become more proficient at reading, and engage with more complex print material. It is at this point that they confront words during reading that they have not been exposed to via listening (Chall, 1987; Duff et al., 2015). Once students transition from primary school to secondary school, many of the new words they come across are unfamiliar, rare, specialised and abstract, and only encountered in written texts in the classroom (Chall, 1987). Research into the relative frequencies of oral and written language has demonstrated the lexical density of written language compared to oral language (Cunningham, 2005; Hayes & Ahrens, 1988). Because lower-frequency words are more likely to occur in print than in speech, reading text provides key opportunities for vocabulary growth and development (Duff et al., 2015; Murphy & Murphy, 2018). Vocabulary is therefore essential for reading, and reading, in turn, builds vocabulary.

Upon entering secondary school, students encounter increasingly complex, subject-specific texts that require them to read and understand more complex vocabulary. Moreover, students are expected to comprehend progressively sophisticated ideas and concepts across the many curriculum areas. The model of 'word tiers' or 'three tiers of language', conceptualized by Beck, McKeown and Kucan (2008), is useful here to categorise and illustrate the types of words that students encounter frequently and infrequently in everyday language use. Tier One words are basic and familiar words that are learned readily from informal everyday experiences. At the other end, Tier Three words are words that are rarely used, and apply to specific disciplines or school subjects, for example, 'photosynthesis'. Tier Two includes words that are more sophisticated, yet not so common in everyday conversation as basic Tier One words. It is Tier Two words that appear across school subjects, and characterize a wide variety of written text. Students' opportunities to learn new Tier Two words and Tier Three therefore arise mainly from reading written texts. Some words, particularly Tier 2 and Tier 2 words, are more challenging for students to learn than others.

Studies have found that expository text, used in curriculum areas such as science and social science, is often more complex in terms of ideas, structure, sentence length and vocabulary, and that students are less familiar with reading these types of informational texts as a result of less exposure to them in the early school years (Westwood, 2008; Yildirim, Yildiz and Ates, 2011). Some secondary students struggle to comprehend expository texts, because of the new and difficult words they encounter in them. Often new words met in expository text are Tier 3 words that are labels for important, often abstract, concepts. These concepts are often critical to students' subject knowledge, and can make it even more difficult for students to comprehend the text. A study by Yildirim et al. (2011) found that there is an even stronger correlation between vocabulary knowledge and reading comprehension for expository texts than there is for narrative texts. Therefore it is imperative that students' written receptive vocabularies are developed and supported throughout secondary school in subject-specific areas, so that they are able to engage with and comprehend the more complex expository texts used.

2.1.3 The Matthew effects in reading and vocabulary

Struggling readers do not, in general, read as much as good readers, and this has an impact on their vocabulary acquisition (Duff et al., 2015). The well-known phenomenon where the 'rich-get-richer' and 'poor-get-poorer' in literacy development is known as the "Matthew effects" (Stanovich, 1986). Subsequent research shows that students who read fluently and abundantly develop greater reading skills, and access more vocabulary than less fluent and avid readers. Thus, they experience more pleasurable reading experiences and are encouraged to read more, in turn, building larger vocabularies (Cunningham 2005; Ehri, 2014; Hempenstall & Buckingham, 2016). By contrast, children who struggle to read or rarely read are slower in developing their reading skills, read less challenging material, and are therefore exposed to fewer new vocabulary words, so their vocabularies do not grow as quickly as good readers. As a result, they struggle more while reading, comprehend less of the text, derive less enjoyment from reading experiences, and are less likely to read in the future (Cunningham, 2005).

Support for the existence of a Matthew effect between word-reading skill and vocabulary comes from a study by Duff et al. (2015), finding that strong readers made greater vocabulary gains compared to average and weak readers. Their findings point to the importance of reading for vocabulary acquisition in older children and adolescents. Both Farrall (2012) and Murphy and Murphy (2018) argue that the vocabularies of poor readers are often limited to their oral language experiences. In turn, this means that their vocabularies are less likely to include decontextualized, academic and specialised words. Consequently, the vocabulary gap between good and struggling readers grows (Murphy & Murphy, 2018). Because this vocabulary gap tends to persist over time, it gives rise to further disparities in students' literacy learning and educational outcomes (Hempenstall & Buckingham, 2016).

2.1.4 The importance of vocabulary size

Both vocabulary breadth and depth are important for literacy development, and secondary school students need to continue deepening and broadening their vocabulary knowledge

throughout their high school years (Hempenstall & Buckingham, 2016; Westwood, 2008). The distinction between the two dimensions of breadth and depth of vocabulary was first made by Anderson and Freebody (1981), and subsequent research has shown that both breadth and depth contribute to reading comprehension. Li and Kirby's (2015) research with secondary school students found that breadth of vocabulary had a stronger effect on word reading than depth of vocabulary did. Studies have also found that having a broad vocabulary speeds up reading rate, and allows understanding of more nuanced words and expressions (Binder, Cote, Lee, Bessette & Vu, 2017; Farrall, 2012). On the other hand, vocabulary depth allows an understanding of a word's structure, origin, spelling, usages and semantic relationships with other words; this deep understanding of each individual word, as well as understanding word meanings in different contexts, helps with reading comprehension (Binder et al., 2017; Farrall, 2012). These two dimensions of vocabulary are interconnected and facilitate one another; breadth contributes to depth, and vice versa, as students with deeper word knowledge learn new words by linking them to existing words in their mental lexicon. In turn, breadth and depth of vocabulary helps with clarity and precision when writing.

The more words that a student knows, the more likely they are to comprehend written texts. Murphy and Murphy (2018) argue that by the end of secondary school, students need to have 15,000-20,000 word families in their vocabulary, to ensure success in the education system. Hu and Nation (2000), cited by Nation (2006), calculated that 98 percent coverage of words in a text, that is, knowing 98 out of every 100 words, is needed for most learners to adequately comprehend a written text. Nation (2006) found that to read novels and newspapers with 98 percent text coverage, learners would need to have a receptive vocabulary size of around 8,000–9,000 word families. Subsequent research has shown that secondary school science and English texts follow similar lexical coverage patterns as newspapers and novels, confirming that a receptive written vocabulary of 8,000-9,000 word families is essential for reading comprehension in English without vocabulary being a problem (Coxhead & White, 2012; Schmitt, Jiang & Grabe, 2011). A receptive vocabulary measure is therefore useful in determining the level and types of vocabulary instruction needed for secondary school students. The Vocabulary Size Test (Nation, 2012) is

used in this study to measure participants' written receptive vocabulary sizes, and is discussed further in Chapters 3 and 4.

2.1.5 The importance of vocabulary instruction for secondary school students

For secondary school students who struggle to read and write, quality vocabulary instruction remains a crucial contributor to their success in school. Anderson and Nagy (1992) emphasise that there are precise words that students need to know in order to comprehend particular subject matter, and thus it is more effective to teach students these words through direct and systematic vocabulary instruction, rather than simply waiting for students to encounter these words in natural reading. In the past, researchers believed that the incidental learning of words from context while reading was a major mode of vocabulary growth. However, Nagy and Herman (1987) found that the chance of a student learning a word from one exposure in text is around 1 in 20, and argue that written context is not as useful as oral context in helping students learn the meanings of new words. Scott (2005) reviewed the literature around factors that contribute to vocabulary acquisition from text, concluding that the contexts in which unknown words are presented in text can mislead students into making incorrect inferences about word meanings. Struggling readers in particular appear to have difficulty learning new words incidentally when the text is unsupportive; texts that are dense with new, abstract vocabulary are often less helpful for inferring the meaning of new words (Kirton, 2007; Scott, 2005).

Research literature supports the proposition that teachers should explicitly and systematically present students with multiple opportunities to encounter and use new words in the classroom (Hempenstall & Buckingham, 2016; Stuart & Stainthorp, 2016). A study by Rosenthal and Ehri (2008) highlights the importance of including written words as part of vocabulary instruction, as well as the significance of students both pronouncing spellings and determining meanings when they encounter new words. Hempenstall and Buckingham (2016) argue that students who have limited vocabularies should be taught word meanings directly, using everyday language rather than dictionary definitions. This is supported by the work of Anderson and Nagy (1992), highlighting the shortcomings of using dictionary definitions when teaching new words because of problems that students have

understanding these definitions. Teachers need to support students' learning of these words through indirect vocabulary instruction, that is, through oral discussion in the classroom (Hempenstall & Buckingham, 2016; Stuart & Stainthorp, 2016).

A large proportion of the challenging new Tier 2 and Tier 3 words that secondary students encounter at school are morphologically complex (Crosson & Moore, 2017). Anderson and Nagy (1992) advocate for the development of students' 'word consciousness', or metalinguistic awareness, by instructing them in the ways that word parts contribute to word meanings. Thus, students are taught word relationships and families, and are encouraged to approach an unknown word as a problem-solving exercise. More recent research into morphological instruction supports a focus on developing students' 'word consciousness'. A meta-analysis of studies examining the effects of morphological instruction by Goodwin and Ahn (2013) found that students receiving morphological instruction performed significantly better on measures of literacy achievement than comparison groups. Specifically, Bowers and Kirby (2009) found that teaching morphological analysis knowledge and skills provides students with a means to develop vocabulary beyond the words they are taught. It is clear from the literature that explicit discussion of word structure and etymology benefits adolescent students' vocabulary acquisition (Hempenstall & Buckingham, 2016; Murphy & Murphy, 2018; Stuart & Stainthorp, 2016). In addition to this, morphological instruction has shown to have a positive impact on students' spelling (Joshi, Treiman, Carreker & Moats, 2008).

2.1.6 Cross-curricular and subject-specific vocabulary learning

Knowledge of general, academic vocabulary that is encountered across all curriculum areas is important for secondary students' learning in the classroom. General academic words occur frequently in school textbooks, as well as in assessments and examinations. However, the abstract and complex nature of academic words makes them challenging to learn. Many general academic words have different meanings across and within different learning areas, as discussed by Luxton, Fry and Coxhead (2017), and therefore a focus on them in the classroom is important for students' literacy learning. Some researchers argue that it is important to consider word frequency as a factor in choosing new words in English to be

taught explicitly in vocabulary programs, with the idea that it more efficient to teach commonly used words, rather than rarely used words (Scott, 2005). Beck et al. (2008) argue that a focus on words that are less likely to be learned independently is important in the classroom, and therefore advocate vocabulary instruction focussing on Tier Two words.

Research shows that evidence-based vocabulary interventions targeting Tier Two, cross-curriculum words are effective in improving secondary students' general academic vocabularies (Spencer, Clegg, Low & Stackhouse, 2016). Studies by Cox, O'Brian, Walsh and West (2015), Luxton et al. (2017) and Townsend and Collins (2009) found that evidence-based instructional strategies for general vocabulary words, including the use of morphological instruction to raise students' word consciousness, showed significant improvements in the general academic vocabulary knowledge of students from non-English speaking backgrounds.

Conversely, there is growing evidence that a focus simply on cross-curricular literacy and vocabulary learning is not sufficient for secondary students' vocabulary development. Shanahan and Shanahan's (2008) Model of Literacy Progression identifies three types of literacies; Basic Literacy, Intermediate Literacy and Disciplinary Literacy, presenting them in a pyramid figure. While this model refers to literacy skills in a broader sense, the authors recognise vocabulary as a key component of literacy learning (Shanahan & Shanahan, 2008).

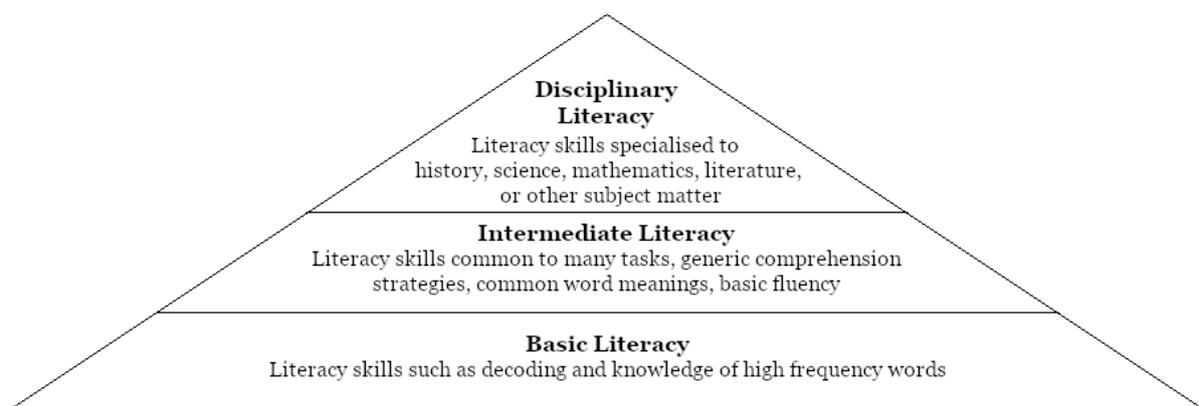


Figure 4: The Increasing specialisation of literacy development.

Adapted from T. Shanahan and S. Shanahan, 2008, Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review*, 78(1), p. 44.

Shanahan and Shanahan (2008) argue that there is need for more sophisticated literacy development for all students. Their study into disciplinary literacy demonstrated how the literacy demands on students are unique, depending on the subject they are studying. They found that because the texts and literacy skills are highly specialized in each subject, students require appropriate and unique subject-specific reading skills and strategies in order to progress in each subject area, including support with learning new vocabulary. Shanahan and Shanahan (2008) advocate a move away from 'content-area' teaching of literacy where teachers and students are taught how to use generic comprehension strategies across all curriculum areas.

Shanahan and Shanahan (2008) argue that disciplinary literacy, that is, advanced literacy instruction embedded within content-area classes such as maths, science, and social studies, should be the focus in secondary school. Similarly, Taylor and Kilpin (2013) argue that New Zealand social science teachers must integrate literacy instructional practices, including instruction targeting specialist social science vocabulary, into the content teaching of their disciplines. A study, by Coxhead, Nation and Sim (2015), supports this. The authors examined the vocabulary size of native speakers of English in New Zealand secondary schools and found that it is more appropriate to focus vocabulary instruction and reading support on Tier Three words, namely the technical, subject-specific words encountered in the secondary school classroom. They argue that even native speakers at secondary school with small vocabulary sizes know many thousands of words and already know a large proportion of the high-frequency and mid-frequency Tier Two words of English.

Much of New Zealand secondary school students' learning is framed around their subjects. Subject-specific vocabulary learning is therefore essential to ensure students' progress and achievement in each of their subjects, and as noted in Chapter 1, this is recognised in the New Zealand Curriculum. Certain subject areas, for example science, are well-known for the introduction of abstract academic language and concepts at the secondary school level. Shanahan and Shanahan (2008), for example, note that US-based secondary school science texts have a higher number of content words embedded in the text in relation to the total number of words. Subject-specific, Tier Three content words used in science classes such as

kinetic energy, particles and *velocity* are technical terms which must be thoroughly learned in order to learn the science behind them (Shanahan & Shanahan, 2008).

While subject-specific vocabulary learning in disciplines like science can be challenging, an explicit focus on new terminology using evidence-based teaching strategies can support adolescent students' vocabulary acquisition. Recent studies have found that focusing on science vocabulary instruction improves students' use of science vocabulary, their conceptual understandings of science content, engagement, motivation, science self-efficacy and overall science learning, as well as reducing their anxieties in this subject (Ardasheva, Carbonneau, Roo & Wang, 2018; Ardasheva & Tretter, 2017; Larson, 2014). In 2013, Shore et al. found that learning strategies such as drawing word meanings combined with oral discussion of the words, as opposed to simply copying new words down, makes a difference in word retention, particularly with struggling readers. Townsend, Brock and Morrison (2018) observed how students that had multimodal opportunities to learn and use science concepts in the classroom made significant gains in their understanding of both general academic vocabulary and discipline-specific vocabulary. Two studies (Brown & Concannon, 2016; Seifert & Espin, 2012) examined the use of vocabulary and reading strategies in science classrooms and found that the use of both produced the greatest improvements in reading and vocabulary acquisition. In the study by Brown and Concannon (2016) the students also commented that the strategies used were important for their science knowledge.

As with science, a strong vocabulary is essential for success in the subject of mathematics. Molina (2012) and Livers and Elmore (2018) argue that it is primarily through language and vocabulary specific to mathematics that students are able to understand key concepts in this subject. Mathematics has an abundance of complex and abstract Tier Three words and terms that often appear within word problems and text, for example, *trapezoid*, *pi* and *inequality* (Livers & Elmore, 2018). Mathematics also contains Tier One, everyday words that have distinct uses in this subject, for example, *mean*.

The vocabulary of social sciences can also be described in terms of key subject-specific terms and generalized academic vocabulary. Subject-specific terms and phrases in social

sciences, like their STEM (science, technology, engineering and maths) subject counterparts, help students build important conceptual understandings of social, cultural, historical, economic and civic issues, and this understanding is necessary for students to engage with the written texts used in class (Harmon, Antuna, Juarez, Wood & Vintinner, 2018). Some examples of subject-specific, Tier Three words used in social studies are *immigration*, *sustainability*, *citizenship* and *fjords*. Examples of general academic Tier Two vocabulary used in social studies might be *interact*, *influence*, *consequences*, *justify*, *identities*, and *interpret*.

The literature makes clear that it is important that mathematics and social studies teachers integrate literacy instruction into the content teaching of their disciplines. However, recent studies in these two subject areas have highlighted a lack of evidence-based vocabulary and literacy teaching. A study by Livers and Elmore (2018) concluded that a lack of precise mathematics vocabulary makes it more difficult for students to build concrete conceptualizations of mathematical processes, and that students needed more active support in using mathematics vocabulary, particularly Tier Three vocabulary. A study by Wanzek and Vaughn (2016) examining the vocabulary teaching of social studies teachers in the classroom found that teachers only used teacher-presented definitions for new vocabulary in their instruction. Similarly, a study by Harmon et al. (2018) found little evidence to show that the social studies teachers provided students with opportunities for multiple, meaningful exposures to new, subject-specific and general academic terminology through appropriate instructional practices. These studies highlight the need for the use of research-based vocabulary strategies to develop the vocabulary and concept knowledge of students in these subjects.

2.1.7 The relationship between vocabulary knowledge and writing

Students' vocabulary knowledge impacts on their abilities to use words appropriately and communicate clearly and precisely in their writing. A study by Zhong (2018) found that expressive word use relates mainly to receptive form and meaning knowledge. Students' written receptive vocabularies are larger than their written expressive vocabularies, and therefore they can recognize and understand more words than they use in writing. Research

shows that students' use of words in their writing is an important indicator of student ownership of new words (Dobbs & Kearns, 2016). However, studies have also shown that if students struggle with spelling, then the words they choose to use are likely to be affected, even if they understand the meaning of the words, and thus the quality of their written expression is affected (Dobbs & Kearns, 2016; Mosely, 2016).

Secondary school students need to be able to write using much wider vocabularies than in primary school. In New Zealand, secondary school students' understanding of their subjects are assessed predominantly through their writing. Thus a strong expressive vocabulary is crucial for their achievement in written work. Beck et al. (2008) argue that students are more likely to use new words in their writing if they have explored word meanings and contexts in the classroom. Student-constructed vocabulary logs, sentence stems and word associations, and the use of mentor texts and building word banks, are all evidence-based strategies that encourage word consciousness and support students to use new words in their writing (Beck et al., 2008). Studies of adolescent students' science writing have found both deeper understanding of science concepts and writing improvement when their teachers show them how to write for different purposes, how to use different structures for scientific writing, and when the focus is on knowledge construction, rather than showing understanding (Shanahan & Shanahan, 2008; Hand, Prain & Wallace, 2002).

2.1.8 Vocabulary and self-efficacy

Students with limited vocabularies often face difficulties in reading comprehension, and struggle to use both general academic language and sophisticated subject-specific words in their writing. They are also more likely to perform poorly in national achievement tests in comparison to their more vocabulary proficient peers (Hempenstall & Buckingham, 2016). Westwood (2008) notes that limited vocabulary knowledge is often associated with spelling problems, and that weaknesses in vocabulary and spelling can cause students to disengage from reading and writing. The disengagement that arises for students struggling with literacy acts as a further obstacle to progress (Hempenstall & Buckingham, 2016). For students who struggle with reading, including those with reading disabilities, reading is hard work; it can be slow, laborious, confusing, and neither relaxing nor rewarding (Farrall, 2012;

Murphy & Murphy, 2018). The inability to cope with the literacy demands of secondary school, including vocabulary demands, can have adverse effects on students' motivation, attitude, self-esteem, and self-efficacy, and, therefore, impact on their learning and achievement across the curriculum (Westwood, 2008).

2.2 Self-efficacy

A primary dimension of human motivation, identified by psychologist Albert Bandura in his seminal work in the area of Social Cognitive Theory, is the psychological construct of self-efficacy. Self-efficacy, as defined by Bandura (1997), is "beliefs in one's capabilities to organise and execute the courses of action required to produce given attainments" (p. 3). In other words, self-efficacy is an individual's confidence in their ability to complete tasks or produce successful outcomes. Since Bandura's original paper on self-efficacy in 1977, self-efficacy theory has been applied in a variety of educational settings and content domains, such as reading, writing and mathematics (Schunk, 1995). Riggio (2012) defines self-efficacy at a more specific level, as an individual's belief about their ability to perform a particular behaviour in a specific context. Self-efficacy can therefore be assessed in a general way, or it can be assessed in a way that is closely linked to individual items or tasks in a particular domain.

Self-efficacy beliefs are acquired through experience. Bandura (1997) asserts that there are four categories or sources of experience that influence the development of self-efficacy. Firstly, he hypothesises that self-efficacy beliefs are acquired through *mastery experience*, especially direct experiences of mastery with a specific task or behaviour. This is considered the most influential source of self-efficacy (Bandura, 1997; Pajares, 2003). Secondly, self-efficacy beliefs are acquired through *vicarious experience*; that is, exposure to the successful or unsuccessful behaviours of other people in accomplishing particular tasks or performances. Observations of the performances of other people similar in age, experience and ability are particularly important in the development of feelings of competence. In addition to this, self-efficacy beliefs are facilitated by other people through *verbal and social persuasion*. These are the messages that a person receives from others about their capabilities and use of skills. Finally, *physiological states*, such as anxiety and stress, is the fourth category of experience that influences self-efficacy beliefs (Unrau et al., 2018).

2.2.1 Self-efficacy, motivation and achievement

Students' beliefs about their learning are critical during the secondary school years, and have a profound influence on how they engage their skills and knowledge. It was originally hypothesised by Bandura (1977) that self-efficacy affects choice of activities, effort and persistence, and subsequent research has documented the influence of self-efficacy beliefs on students' motivation for learning and academic achievement. A strong sense of self-efficacy fosters a high level of motivation, academic accomplishments, and development of intrinsic interest in academic subject matter; that is, high self-efficacy promotes both task engagement and skill acquisition (Bandura, 1997; Schunk, 1995). This is supported by the research by Hattie (2009), who found that the beliefs students have about their own competencies and capabilities are consistent predictors of academic achievement. Having high levels of self-efficacy is a powerful factor with regard to overcoming obstacles in learning at school, and self-efficacy becomes especially important when specific domain-related tasks are demanding (Bruning et al., 2012; Hattie, 2009). Self-efficacy helps students when things do not go right, or when they make mistakes, and a student with positive self-efficacious beliefs believes that they have more control over a situation and is more optimistic about the potential outcome than a student with negative self-efficacious beliefs (Frey, 2018; Hattie, 2009). Studies across different content domains have found significant positive correlations between self-efficacy and academic achievement (Butz & Usher, 2015; Schunk & Meece, 2006). Self-efficacy therefore acts as a motivator in specific domains, such as reading and writing (Bruning et al., 2013). These studies support Bandura's (1997) assertion that students reflect on and remember their experiences differently as they judge their efficacy in different academic domains, confirming the domain-sensitivity of self-efficacy development. Therefore, a student may have high self-efficacy for a particular task in one subject, but may have low self-efficacy for a similar task in a different subject.

2.2.2 Self-efficacy in adolescence

Adolescents must navigate their way through a significant educational transition when entering secondary school. Bandura (2006) argues that students have to re-establish their sense of self-efficacy in this new environment, which can result in lowered confidence in themselves and a decline in self-motivation. This is supported by studies that have found that students' motivation in general declines as they progress from primary school through to high school, with a drop in adolescents' academic self-efficacy beliefs (Klassen, 2010; Unrau et al., 2018). Adolescents' experiences of school help shape their self-efficacy beliefs in relation to their learning and achievement, particularly as a result of their direct experiences of mastery, as well as their vicarious experiences in the classroom (Riggio, 2012). The messages students receive about their skills and capabilities, both implicit and explicit, as well as the levels of stress and anxiety they experience with regard to particular tasks, have an impact on their self-efficacy development. Students' beliefs about their abilities and competencies have an impact on the goals they set for themselves, and their anticipation of success and failure in achieving these goals. Self-efficacy beliefs are thus central to secondary students' motivation (Riggio, 2012).

The secondary school classroom is a critical environment for influencing students' self-efficacy. Research shows that teachers are important in creating classroom contexts that shape students' self-efficacy by supporting the facilitation of their mastery experiences (Schmidt and Shumow, 2012; Zelanak, 2015). A study by Zelanak (2015) highlighted the importance of the teachers' choice of content to match students' ability levels. Schmidt and Shumow (2012) found that the changes in students' self-efficacy over the course of a year appeared to be related to the ways teachers interact with students. Teachers affected students' self-efficacy beliefs by providing vicarious experiences for them, for example through modelling and group work, and through verbal and social persuasion, specifically the explicit and implicit messages they communicate about students' competence, which in turn affects students' stress and anxiety levels around tasks (Schmidt & Shumow, 2012). Research shows that teacher feedback can affect self-efficacy in important ways, particularly when it informs students about their capabilities and progress in learning (Schmidt and Shumow, 2012; Schunk, 1995; Zimmerman, Bandura and Martinez-Pons, 1992).

2.2.3 Self-efficacy in reading

Studies have shown that successful reading experiences promote students' self-efficacy in reading. Butz and Usher (2015) found that mastery experience and verbal and social persuasion were the most frequently reported sources of self-efficacy for reading, and that the teachers' instructional style plays an important role in boosting students' sense of efficacy in reading. They also noted that social comparisons with their peers were an important source of self-efficacy in reading (Butz & Usher, 2015). Meta-analyses on the impact of reading interventions on self-efficacy by Unrau et al. (2018) found that students are more likely to demonstrate effort and persistence in reading if they believe in their capacity to comprehend the text, and revealed a strong correlation between reading self-efficacy and reading comprehension. As reading comprehension increases it has a positive effect on students' reading self-efficacy, therefore, there is a reciprocal relationship between reading and reading self-efficacy. Thus, students with high self-efficacy in reading are more likely to engage in more reading activities and consequently read more (Unrau et al., 2018), contributing to the Matthew Effects in reading and, consequently to vocabulary acquisition.

2.2.4 Self-efficacy in writing

A large body of research demonstrates self-efficacy's importance for successful writing performance (Bruning et al., 2013; Pajares, 2003; Schunk, 1995). A synthesis of research carried out by Pajares (2003) into self-efficacy beliefs, motivation and achievement in writing shows that students' confidence in their writing capabilities influence both their writing motivation and their writing outcomes in school. Studies by Villalon et al. (2013) and Sanders-Reio, Alexander, Reio and Newman (2012) found that students' writing self-efficacy beliefs predict the quality of writing produced, and that students with high writing self-efficacy enjoy writing more and received higher grades than those with low writing self-efficacy. However, other research shows that students' self-efficacy beliefs about their writing tend to differ across different types of writing (Bruning et al., 2013; Hidi, Berndorff & Ainley, 2002; Pajares, 2003). For example, a student may have high self-efficacy for writing narratives, but may have low self-efficacy for writing explanations. Thus, students' writing self-efficacy beliefs can vary, depending on the school subject and the writing genre.

2.2.5 Improving students' self-efficacy in reading and writing

Self-efficacy beliefs can change, and reading self-efficacy specifically can be influenced through well-designed reading interventions (Unrau et al., 2018). Research also shows that reading interventions are more effective as the number of hypothesised sources of self-efficacy included in the intervention increases. According to Unrau et al., (2018) mastery experiences related to reading might include teaching students research-based reading strategies that enhance their comprehension and consequently lead to successful experiences. Vicarious experience includes modelling reading strategies demonstrating an approach to reading that improves efficiency and effectiveness. Verbal and social persuasion might include offering supportive feedback to students who demonstrate an effective application of a reading strategy. Thus, interventions that target all three of these sources of self-efficacy have a greater impact on reading self-efficacy than those that only targeted one (Unrau et al., 2018).

Despite evidence supporting the relationship between writing self-efficacy and writing performance, only a small selection of interventions have explicitly focused on improving students' self-efficacy. Pajares, Johnson and Usher (2007) found that students' mastery experiences were the most influential source of self-efficacy information at all ages, but for secondary school students, verbal and social persuasion was instrumental in improving students' writing self-efficacy beliefs. This finding supports the idea that to raise students' self-efficacy in writing, the focus must be on providing students with authentic mastery experiences that require the development of their writing skills, and that the messages and feedback students receive about their writing from adults are critical in building their self-efficacy in writing. More recently, Daniels et al. (2019) found that combined writing strategy instruction and components of cognitive-behavioural therapy, enhanced both writing production and writing self-efficacy. It is clear from the literature that writing self-efficacy can be influenced through the use of effective strategies in order to improve students' writing outcomes (Daniels et al., 2019; Pajares, Johnson & Usher, 2007).

It is clear from the literature (Daniels et al, 2019; Unrau et al., 2018) that self-efficacy beliefs can change, and that both students' reading and writing self-efficacy can be influenced through the use of effective strategies and interventions in order to improve students' reading and writing outcomes. Certain teaching practices can therefore have a positive influence on the self-efficacy of students in their subjects. Schmidt and Shumow (2012) argue that teachers are important in creating classroom contexts that shape students' self-efficacy by supporting the facilitation of students' *mastery experiences*. Teachers can also affect students' self-efficacy beliefs by providing *vicarious experiences* for students, for example through modelling and group work, and through *verbal and social persuasion*, specifically the explicit and implicit messages they communicate about students' competence. This in turn this can reduce students' stress and anxiety levels around tasks (Schmidt & Shumow, 2012).

2.3 Summary of the literature, and gaps in the research

There is a considerable body of research on the importance of vocabulary acquisition and knowledge. Similarly, numerous studies have explored sources of adolescents' self-efficacy, and self-efficacy in reading and writing. What appears to be less well documented, however, are secondary school students' experiences of vocabulary learning, and its relationships with students' self-efficacy in reading and writing. A deeper understanding of students' experiences of vocabulary learning in the secondary school classroom, of their self-efficacy in reading and writing tasks across their subjects, and of how these might be enhanced, will be useful for informing teacher practice to support students' subject-based literacy learning.

Duke and Mallette (2001) argue that educators' understanding of literacy learning is enhanced by seeing it studied in multiple ways. While there are numerous quantitative studies on reading and vocabulary acquisition, there are fewer studies that investigate vocabulary learning using a qualitative approach. There has been growing diversification in the methods employed in literacy research in recent years (Duke & Mallette, 2001). Brown and Concannon's (2016) study utilised quantitative data by measuring students' pre and post-test perceptions of science vocabulary knowledge and learning, yet they note that

further qualitative studies into subject-specific literacy learning would help describe the mental processes students use to learn vocabulary from reading. The findings from the qualitative studies by Harmon et al. (2018) and Livers and Elmore (2018) emphasise the need for more support from teachers, in the form of research-based strategies, to develop secondary school students' subject-specific vocabulary in the classroom. While both of these studies provide valuable information on supporting vocabulary acquisition in the secondary school classroom, neither study sought the views of the students involved. It appears that a qualitative study which investigates vocabulary learning from secondary school students' perspectives could contribute to our understanding of literacy learning.

Similarly, self-efficacy researchers have predominantly used quantitative methods to examine the role of self-efficacy, particularly with regard to academic motivation. Self-efficacy theorists acknowledge that a more qualitative approach to the study of self-efficacy is valuable, to complement the insights gained through quantitative research (Pajares, 1996; Schmidt and Shumow, 2012; Schunk, 1991). Additionally, Schunk (1991) emphasises the need for self-efficacy assessments to be broadened to include descriptions by people on how confident they feel about performing tasks in different situations. Schunk (1991) also notes the need for more self-efficacy research conducted in classrooms using teachers and academic content while students are learning, rather than focusing on specific tasks performed outside of regular classrooms. Butz and Usher (2015) stress the importance of students sharing what makes them feel more confident, in order for researchers and educators to determine best practices in the classroom.

This chapter has drawn attention to the importance of vocabulary acquisition, and self-efficacy in reading and writing for secondary school students. Gaining insights into students' learning, and discovering how to provide students with richer learning opportunities that enhance their vocabulary acquisition and their self-efficacy in reading and writing will potentially improve their motivation and engagement, their vocabularies, reading comprehension, writing skills, and their ability to learn across the curriculum. This study attempts to provide insights into secondary school students' experiences of vocabulary learning, and their self-efficacy in reading and writing across their subjects, from students' perspectives, and address the gaps in the research literature in these areas.

Chapter 3: Methodology

This chapter describes the research design of this study. It begins with the research theory that underpins the qualitative approach taken, and an explanation of the methodology and methods employed in this study. Included is a description of the research setting and the participants, and an outline of the data collection and analysis procedures used in the research process. Ethical issues and how I attempted to minimise them throughout the research process are also discussed.

3.1 Qualitative practitioner research

This research is positioned within a qualitative research paradigm, and is underpinned by interpretivist, social constructionist and phenomenological theory. While there are mixed sources of data in this study, the research is qualitative in nature. As stated in Chapter 1, this study is also a form of practitioner research, as the purpose and design of this study, as well as the analysis of the data, was affected by my experiences and position as a secondary school teacher.

3.1.1 Interpretivism

According to Denzin and Lincoln (2011), "Qualitative research is a situated activity that locates the observer in the world... [It] consists of a set of interpretive, material practices that makes the world visible. These practices...turn the world into a series of representations." (p. 3) Snape and Spencer (2003) argue that there is fairly wide consensus that qualitative research is a "naturalistic, interpretive approach concerned with the meanings that people attach to phenomena...within their social worlds" (p. 25). In this study, the 'social world' is the school, with its staff and students, as teaching and learning take place in an environment where interactions and relationships are an integral part of pedagogy. I have sought to build a picture from the student-participants' points of view, that is, from their experiences from the 'inside' (Gauld, 2001; Taylor, Bogdan & DeVault,

2016), whilst also incorporating my interpretations and understandings, as a teacher-researcher, of their perspectives.

3.1.2 Social constructionism

This project is situated in a social-constructivist framework. Social constructionism is an epistemology; that is, a “theory of knowledge embedded in theoretical perspective, and thereby in the methodology” (Crotty, 1998, p. 10). Put simply, an epistemology is a way of looking at the world and making sense of it. Social constructionism believes that all knowledge and meaningful reality is socially constructed from the interactions between human beings and their world (Crotty, 1998). Social constructivists are therefore interested in the construction of knowledge by particular social groups, and the ways in which these groups of people collectively generate meaning through their interactions with people, both inside and outside of their social group (Au, 1998). Central to the epistemology of social constructionism is a concern for lived experience. The qualitative nature of this study allowed me to provide a holistic, detailed and interpreted understanding of the students’ lived experiences of vocabulary learning, and their perceptions and understandings of their self-efficacy in reading and writing, at secondary school.

When discussing the roots of social constructionist theory, Burr (1995) notes that social psychologists in the 1960s and 1970s were concerned with the absence of voices of ‘ordinary people’ in research. Similarly, Locke, Alcorn and O’Neill (2013) point to literature in education that shows that the voices of young people have often been ignored in curriculum and pedagogical decision-making. In this vein, it appears that much of the research in literacy has been carried out from the points of view of teachers or researchers, often from within a positivist framework. Au (1998) writes that, “social constructivist research on literacy learning focuses on the role of teachers, peers, and family members in mediating learning, on the dynamics of classroom instruction, and on the organization of systems within which children learn or fail to learn.” (p. 300) Social constructivist research on literacy therefore centres on authentic literacy activities, and includes attention to the cognitive, strategic, motivational and emotional aspects of literacy learning (Au, 1998). In this study, I was concerned with what students have to say about the complexities of

vocabulary learning, reading and writing in the secondary school classroom, and the nuances in their understandings. A qualitative approach to this research was thus the most appropriate way to investigate the phenomena in focus.

3.1.3 Phenomenology

This study draws on the theoretical perspective of phenomenology, which is rooted in the epistemology of social constructionism. According to Cresswell (2012), a phenomenological study describes the common meaning for several individuals of their lived experiences of a particular phenomenon. A similar definition of phenomenology is provided by Wertz (2011), who describes it as a “descriptive, qualitative study of human experience” (p. 124) with a focus on lived experience; phenomenological studies therefore investigate “*what* is experienced, and *how* it is experienced” (Wertz, 2011, p. 125). Central to these definitions, and to phenomenology, is the concept of experience.

In phenomenological research, experience is explored through conversation, often in the form of qualitative interviews. Given my interest in lived experience, interviews were my primary data-gathering tool. It is important to define here the nature of experience that can be revealed in this study. The students’ experiences of vocabulary learning, and reading and writing, in the secondary school classroom are personal and unique for each individual. Two students in the same class can have different experiences of the same lessons, the same activities, and the same teachers. The qualitative data in this study cannot transport us into the students’ minds and allow us to see exactly what they have experienced. Instead, the data reveals the students’ interpretations of their experiences of the phenomena discussed in the interviews; it provides clues about the students’ experiences through what they say, and, to a lesser extent, what they do not say.

3.1.4 The use of qualitative and quantitative data

The main source of data is qualitative interviews with student-participants. There is, however, a mixed-methods element to this qualitative study; this is because quantitative

research techniques and data were used, in combination with the qualitative data. This enabled me to develop and expand the scope of the study, which Johnson and Onwuegbuzie (2004) recognise as important advantages when using both qualitative and quantitative data. The quantitative data was used for the purposes of creating individual narrative profiles for each of the participants; the small scale of this study meant that the quantitative data was not subject to statistical analysis. The limited sample size, together with the primary data source being the qualitative interviews with the students, means that this is ultimately a qualitative study, as opposed to a mixed-methodology study. The intention was that the quantitative data would help to support the qualitative approach, and thus provide a deeper understanding of the issues being investigated. The quantitative data was collected first from the students.

Quantitative data in the form of a vocabulary test, a self-efficacy questionnaire, and the results of two reading tests, were used to complement the qualitative interview data. The purpose of the vocabulary test and questionnaire was to systematically measure the vocabulary breadth and self-efficacy in reading and writing of the individual participants respectively, and provide background information on the vocabulary and self-efficacy levels for each of them. The quantitative data provided some initial findings about the students' vocabulary and reading levels, and their self-efficacy in reading and writing, but it was the qualitative methods that provided rich and extensive data in this study. The triangulation of the quantitative and qualitative data was used to support and offer points of challenge to the findings; it allowed identification and analysis of consistencies and inconsistencies across the data. It also helped to build a picture of the participants' unique profiles, as presented in the narrative profiles in Chapter 4.

3.2 Methods

3.2.1 Research setting and selection and recruitment of participants

This study focused on Year 10 students in a large, co-educational, high-decile state secondary school in New Zealand. Data in phenomenological studies are collected from the individuals who have experienced or are currently experiencing the phenomenon

(Cresswell, 2012). Year 10 students have already experienced a year of secondary schooling, and are familiar with the curriculum, school structures, and teaching methods utilised at high school. Year 10 students are all currently engaged with the compulsory curriculum and the new vocabulary that comes with it; they are attending mathematics, science, English, social studies, physical education and health classes. Senior students, in Years 11-13, often lead very busy lives, and there is added pressure on them to perform well in NCEA assessments, both throughout the year and in the final examinations. It was preferable therefore that this research did not add stress to the lives of young people who are already potentially very pressured with regard to their academic achievement. Finally, this was one of the least ethically problematic year levels with which I could carry out research at my school. This is because I had not taught any students in the current Year 9 or 10 cohort at my school; I was on maternity leave in 2018, and was granted study leave for 2019, in order to complete my Master of Education. This helped minimise ethical issues around power-relationships that occur between teacher-researchers and student-participants.

Within the school setting, the Year 10 cohort is organised into two broad bands; an 'A band', and a 'B band'; class allocations are made at the start of students' secondary schooling, based on the CEM Year 9 Entrance Tests results. In general, students in the A band tend to be reading at or above the expected curriculum level for their year level. Students in the B Band tend to be reading at or below the expected curriculum level for their year level. For the purposes of this study, I focused on Year 10 students from the B band. This was to ensure that the voices of students who struggle with reading and writing were more likely to be heard in this study. The intention was, with the help and advice of the students' English teachers, to carefully select potential student-participants with a range of literacy levels from across the two classes. I was hoping to select a mixture of students who are struggling with reading and writing, as well as those who are more proficient readers and writers from the B band. Cresswell (2012) points to the work of Polkinghorne (1989) who recommends that researchers interview from 5 to 25 individuals who have all experienced the phenomenon. My aim was to interview a minimum of six student-participants from across two 'B Band' classes.

After obtaining ethical approval from the Educational Research Human Ethics Committee (ERHEC), written permission was sought from the principal of the school, in order to carry out my research. Once written permission was granted, the English Head of Faculty was approached to help identify two B band classes in Year 10, which I have called Class 1 and Class 2, and their current English teachers. I spoke with the English Head of Faculty and the two English teachers and briefed them about my research purposes and processes, including ethical issues, such as consent and confidentiality. I met with each of the teachers to identify students that they thought would be appropriate for my research, and an appropriate time for me to approach them. As the researcher, my intention then was to engage with the potential student-participants about my research. Finch (2005) argues that consensual research with young people means that “participant knowledge...must be sufficient for making a realistic decision about participation.” (p. 63) Therefore, my aim was to outline for the potential participants the purposes and processes involved in my research, and discuss possible ethical issues around it with them. My study required voluntary participation and written informed consent from both the students and their parents/caregivers. The information letters and consent forms for students and parents/caregivers are included in Appendix 3.

I initially approached six students individually from Class 1 about participating in my study. These students were selected for me by their English teacher as students who experienced a range of difficulties with their literacy learning, and who might be interested in talking to me. I spoke with each student individually for about ten minutes, in the school library, explaining the purposes and process of my research, and provided them with consent forms for themselves and a parent/guardian to sign. The students were all polite but quiet and did not ask me any questions about the research. From this selection of students, none of them returned the consent forms.

Later in the week I spoke to six students from Class 2 about potentially participating in my study. These students were selected for me by their English teacher as students who represented a range of literacy levels, and would be interested in talking to me. Again I spoke to the students in the library. This time I spoke to them as a group, explaining the purposes and process of my research, including ethical issues, and provided them with

consent forms for themselves and a parent/guardian to sign. The students were more engaged and responsive than the students from Class 1 and asked questions about my study. From this group, two students returned the consent forms to participate in my research. Following this, I approached six more students from Class 1 about participating in my research, this time in small groups. Of these six students, one returned the consent forms to participate in my study.

At this point I had a total of three participants. Upon advice from my supervisors, I contacted ERHEC, and requested permission to expand my search for participants from two to three classes. The Chair of ERHEC approved my request for an amendment to my Application for Ethical Approval. I then contacted the Head of English Faculty with regard to identifying a third Year 10 teacher and class. The Head of English Faculty suggested Class 3 and their English teacher. The English teacher was briefed about the research purposes and processes, including ethical issues, such as consent and confidentiality. The English teacher then selected, from Class 3, four students who experienced significant challenges with their literacy learning, and who she thought might be willing to talk me. I met with four students from Class 3 as a group, around a table at the back of their English classroom, and explained the purposes and processes of my research, providing them with consent forms for themselves and a parent/guardian to sign. Of this group of students, three of them returned their consent forms to participate in this study. From the 22 students approached in total, six participants were recruited for my study.

3.2.2 Qualitative data collection

The primary qualitative method used for the collection of data was in-depth one-on-one interviews with the six student-participants. The interviews with the participants were used to provide an insight into how students construct meaning around their vocabulary learning and their reading and writing at secondary school. In phenomenological studies, the collection of the qualitative data is predominantly on the internal thoughts and experiences of the participants, and the external outcomes of these thoughts and experiences (Creely, 2018); in this study, my focus was to learn from the points-of-view of the students. In-depth interviewing was useful in addressing my first research sub-question, as students recalled

and reflected on past vocabulary learning experiences in the classroom. The interviews also allowed me to explore with the students their perceptions of themselves as readers and writers, and delve into their self-efficacy in reading and writing in various subjects and tasks, thus addressing my second research sub-question. As noted by Dilley (2004), qualitative interviews “allow us to investigate, in critical ways, our respondents' comprehensions of their experiences and beliefs as well as our own.” (p. 128).

McLachlan (2005) argues that one-on-one interviews allow more easily for the anonymity of each individual student than focus group interviews. Additionally, one-on-one interviews remove the group dynamics that come with focus group interviews; people cannot be expected to say the same things in a group that they might reveal in a one-on-one interview (Taylor et al., 2016). The one-on-one interviews gave each student in this study the opportunity to express their own ideas and opinions without distraction or influence by their peers. The interviews with the participants provided detailed understandings of their literacy learning at secondary school, and from the findings from the data I was able to draw conclusions and identify implications for teacher practice in the classroom, and for schools, thus addressing my overarching research question.

My aim was for the interviews to be relaxed and conversational, rather than a formal question-and-answer exchange. According to Taylor et al. (2016), this has the advantage of allowing the researcher to learn what is important to the participants before focusing in on the research interests, and helps in establishing and building rapport with the interviewees. The interviews were, however, semi-structured. This was because there was a level of specificity in this study; the intention was to explore key topics, and I had a relatively clear sense of the kinds of questions I would pursue with the student-participants. Furthermore, the participants in this study were students aged 14-15 years old, and it was likely that they would need some guidance during the interview process. This guidance was in the form of open-ended interview questions, so as to facilitate the exploration of their experiences of vocabulary learning, and self-efficacy in reading and writing, at secondary school. The list of interview topics, questions and prompts used during the interviews can be found in Appendix 4. Similar to the qualitative study by Harmon et al. (2018), in which the authors interviewed participants in relation to their understandings of and perspectives about

vocabulary teaching and learning, I began with broader questions to contextualize the students in terms of several aspects of their literacy learning (see Appendix 4). I then focused more specifically on the nature of vocabulary learning and reading and writing within these contexts. The aim was to provide rich descriptive data, and to develop insights and understandings from this data through induction, consistent with the phenomenological approach to interviewing.

The interviews took place in a small, modern meeting room in the administration block of the school. The meeting room also doubles as a prayer room; inside the room there was a desk with a desktop computer, two chairs, a heater, and a rolled-up prayer mat. I was facing the students during the interviews, and we sat fairly close together, next to the desk. The digital recording device used was my cellphone, and was placed on the desk so that it would pick up our voices clearly. Similar to the steps described by Alton-Lee (2001) around recording interviews, I demonstrated to the students how the voice-recording app worked, and showed them how to turn it on and off. After each interview was complete, and the voice-recorder was turned off, I offered students the opportunity to look at their results from the Vocabulary Size Test; the students' reactions to their test results were interesting, and I noted these down too in my reflections.

After each interview, I immediately wrote down in my notebook my thoughts and reactions to the interview. As Taylor et al. (2016) note, the observer's feelings and interpretations are also an important source of understanding of the phenomenon under investigation. I also noted down things the student said after the interview had finished, whilst we were walking back to class. Additionally, I wrote down questions that I had neglected to ask during the interviews. These reflections made me realise that I needed to slow down the pace in the interviews, in order to ensure that I was responding with questions and allowing the students time to share everything that came to mind as a result of our discussions.

I wrote the most notes and reflections after the first interview, and then again after that last two interviews. The last two students interviewed provided me with less detail around their learning experiences in the classroom, appeared to struggle significantly with literacy learning, and seemed less engaged in learning at school in general. The last interview in

particular was the most challenging interview for me, as the student needed to be prompted more than the first five students interviewed.

3.2.3 Quantitative data collection

The initial quantitative data collected from the students was a measure of their self-efficacy with regard to their reading, writing and language learning at school. This was done in the form a questionnaire that I administered myself (see Appendix 2). My intention with this questionnaire was to understand the participants' experiences and perceptions of their self-efficacy in reading and writing. For the purposes of my research I developed a self-efficacy questionnaire specific to reading and writing, by adapting the academic self-efficacy questions from the Self-Efficacy Questionnaire for Children (SEQ-C). The SEQ-C was specifically developed for measuring the general self-efficacy of children and adolescents, and contains three subscales; social self-efficacy, emotional self-efficacy, and academic self-efficacy (Muris, 2001). In the SEQ-C, there are 8 questions in the academic self-efficacy subset, which focus on the perceived capability to manage one's own learning behaviour, to master academic subjects, and to fulfil academic expectations (Muris, 2001). However, because self-efficacy is a domain-specific construct with regard to reading and writing, an all-purpose measure of self-efficacy or a measure of general academic self-efficacy would not suffice for this study.

There were eight questions in my questionnaire. Each item asked students to rate their reading, writing or language abilities on a Likert scale, with 1 being 'Not at all' and 5 being 'Very Well'. The items were looked at individually, with regard to the specific tasks that they pertain to, for example, reading tasks, writing tasks, or vocabulary learning. Alternatively, a total score out of 40 could be obtained by summing the 8 items. This questionnaire provided initial information about students' reading and writing self-efficacy beliefs, thus addressing my second research sub-question, and was used in conjunction with the results from Vocabulary Size Test, the PAT reading test, and the e-asTTle reading test to identify any patterns in the data, before the interviews took place. The self-efficacy questionnaire responses were used to look at consistencies and inconsistencies across all the data collected, as part of the analysis process.

Secondly, a measure of each student's written receptive vocabulary size in English was collected. For this, The Vocabulary Size Test was used (see Appendix 1). This test, developed by Paul Nation (2012), measures the breadth of individuals' written receptive vocabulary. It is a simple-to-administer, 100-item, multiple-choice test. This data was useful as it provided detailed information about students' current receptive vocabulary levels, something the data collected by the school could not do. As the researcher, I was able to provide each student with their vocabulary test results; however, this data was not shared with anyone else, such as the students' teachers.

The e-asTTle reading test results and PAT reading test results from Term 4 2018 and Term 1 2019 respectively were used as a proxy to show general reading strength. These tests had been administered in the students' English classes, and the data was provided for me by the English teachers. Scale scores in e-asTTle point to the curriculum level that each student is reading at, breaking it into three sub-levels to indicate where the students' sit in relation to that curriculum level – Basic, Proficient or Advanced, for example, 4P. In contrast, PAT tests show each student's rank, relative to the norming population. Therefore, because of the shape of the normal distribution in the PAT test, 55 percent of all candidates make up the 'average' group, and will be reading at stanine 4, 5, or 6. While the measurement tools for these two tests appear incongruous with each other, it is possible to convert the scores between the two test types using a stanine conversion table, developed by Brown (2015). I utilised this table when looking at some of the inconsistencies between the participants' results; these inconsistencies are discussed in further depth in Chapters 4 and 6. All of the quantitative data were descriptive and therefore not subject to statistical tests.

3.2.4 Data analysis

There are two forms of data analysis in this study. Firstly, there is the thematic analysis of the interviews. The second form of analysis was through the creation of narrative profiles that draw on both the qualitative and quantitative data. This section describes the processes involved in these two forms of data analysis.

3.2.4.1 Interview transcription and thematic analysis

As Taylor et al. (2016) note, qualitative data analysis is an intuitive and inductive process. Thus the initial coding of the interview data involved transcribing, reading and re-reading the interview transcripts and noting any possible ideas, categories or themes, in line with the steps outlined by Taylor et al. (2016) in open coding. I transcribed the interviews as soon as possible after each interview was complete, and analysed the data myself. It took between two-and-a-half to four hours to transcribe each interview. According to Mills and Morton (2013), a grounded approach to data analysis means that the concepts or codes one uses to sort the data should 'emerge', and not be imposed upon the data by the researcher. I began with the intention of keeping an open mind and allowing codes to emerge, rather than me imposing them on the data. The purpose of this open coding was to generate "concepts from and within" the data (Coffey & Atkinson, 1996, p. 26), thus condensing the bulk of my data into 'analysable units'.

Qualitative research findings need to be grounded in specific examples (Mills & Morton, 2013; Taylor et al., 2016). As I transcribed, read and re-read the transcripts, I identified emerging categories and themes. In line with the steps, outlined by Cresswell (2012), for phenomenological data analysis, I looked for significant statements, sentences or quotations in the data that provided an understanding of the phenomenon in focus. I collected examples for analysis, in order to find commonalities, differences and patterns across the data. After the first three sets of interviews were transcribed, I made a list of emerging connections or themes. To ensure that my analysis was grounded in the data, I then double-checked and highlighted quotations relating to these emerging themes, using a different colour for each theme. After transcribing the last three interviews, I added to and altered my list of connections and themes, and again highlighted the quotations relating to each of these themes.

The process of relating codes, categories, subcategories and concepts to each other is often referred to as 'axial coding' when taking a grounded approach to data analysis (Cresswell, 2012). In this study, the process of open coding developed organically into axial coding, as I

re-read the six interview transcripts, and reconsidered the ways in which I had labelled and organised the data. I wrote notes next to the quotations I had highlighted, and revisited each highlighted quotation, making links and connections to other quotations. Thus I developed a slightly more refined list of themes. Excerpts from my coding of the transcripts are included in Appendix 5.

The identification of themes was a challenging part of the research process. I had to carefully consider whether the themes I was identifying were generated by the students' responses, or by my questions. The themes were generated by what the students said; however, I acknowledge that the students' discussions were often led by the topics, questions and prompts I used in the interviews (see Appendix 4). I also contemplated the titles and organisation of my themes, questioning whether or not the theme titles were an accurate reflection of what the students had discussed. For example, early on in the coding process, I created the theme of 'Learning new vocabulary', which I then split into 'Long words' and 'New concepts', but I subsequently collapsed these sub-themes into the theme 'The challenges of learning new vocabulary', because I felt that what the students said clearly demonstrated the various difficulties the students faced when learning new words in the classroom. This theme was then revised again later on in the data analysis process.

Coffey and Atkinson (1996) argue that coding is a mixture of reducing and complicating data; in line with this, my aim was to create clear categories and themes, yet also expand out from the data and formulate new questions around the teaching and learning of vocabulary, and reading and writing, at secondary school. I grouped together quotations and extracts from the transcripts according to the themes I had identified, and wrote a little bit around each group or theme. At this point, I began to write what would eventually become the 'Thematic Analysis', or Chapter 5. The process of writing was an integral part of the analysis. Ezzy (2002) argues that, in qualitative research, "Writing is not simply about transferring 'results' to a written page. Writing is as much about creating 'results' as it is about reporting them." (p. 138). As my analysis of each theme emerged during the writing process, it became more and more refined. The process of analysis involved the development, interrogation and synthesis of ideas, as I actively looked for patterns, similarities and differences, and consistencies and inconsistencies in what the students said

in relation to the themes. I selectively quoted the students and abbreviated the quotations in order for the themes to be clear and concise.

My final list of themes only emerged once I had written the narrative profiles, and revisited what I had written in the thematic analysis. Further writing, refining, re-labelling, re-locating and editing of the thematic analysis was involved to produce the seven themes, and the findings in relation to these themes, that are presented in Chapter 5.

3.2.4.2 Narrative profiles

Mills and Morton (2013) argue that research design is an ongoing concern, a “constant weaving back and forth between a conceptual framing and the intellectual problem at issue” (p. 43), and that as a result of this, research design can and should change over the course of a study. Indeed, once I had undertaken and transcribed the interviews, it became clear to me that each participant had unique experiences, strengths and challenges with regard to their literacy learning. Upon coding and analysing the data, and developing my first list of broad themes, I had clearly found connections and differences across the students’ experiences, but in doing so I felt that I had reduced what the students said, and their own individual experiences, simply to the themes. I wondered if I should have possibly approached this research as a narrative case study; this way I would have been able to present the students’ experiences and perspectives as individuals, and investigate the peculiarities of each specific case via narrative analysis. As Josselson (2011) notes, “Rather than just identifying and describing themes, narrative analysis endeavors to understand the themes in relation to one another as a dynamic whole” (p. 227). I felt, however, that the themes I identified came through strongly in the data and I was reluctant to dismiss my thematic analysis. I therefore decided to create a ‘Narrative Profile’ for each participant; that is, a detailed descriptive account of each student’s experiences of vocabulary learning and reading and writing at secondary school, supported by excerpts from the transcripts, the quantitative data, and my interpretations of the data. Again, writing was central to analysis of the data in this study.

The narrative profiles I created are a form of qualitative analysis, as opposed to narrative analysis. That is, they are not an analysis of students' narratives, but instead narratives I have created as a result of the analysis of the qualitative interviews and the descriptive, quantitative data. The creation of these narrative profiles was therefore an interpretive act by myself as the researcher, consistent with interpretive, qualitative methodology. One advantage of presenting the data this way is that it allows me to paint a broader picture of each participant, whilst at the same time focusing in on the complexities of the challenges they face in their literacy learning as individuals. The narrative profiles allow me to present each individual's experiences of vocabulary learning, and make interpretations around their perceptions of themselves as reader and writers. Josselson (2011) states that in narrative analysis, "The researcher pays attention to both the content of the narration ("the told") and the structure of the narration ("the telling")" (p. 227). The narrative profiles I created serve a similar function in that they allowed me to interpret both what the students said, or did not say, and the ways in which they spoke about themselves and their learning during the interviews.

3.3 Trustworthiness and validity

The ideas of trustworthiness and validity are a form of quality control for qualitative research. Harrison, MacGibbon and Morton (2001) define trustworthiness as the ways in which qualitative researchers "...work to meet the criteria of validity, credibility, and believability of our research" (p. 324), and Taylor et al. (2016) note that qualitative researchers tend to emphasise the validity, or 'meaningfulness', of their research. Qualitative researchers are intimately involved in the research process, and it is important to acknowledge that because this was a small-scale, qualitative, practitioner study, issues of validity and trustworthiness may be of concern.

In order to address the issues of trustworthiness and validity, Yin (2011) argues that the research process must be both methodical and transparent. Similarly, Onwuegbuzie and Leech (2007) refer to this process as leaving an 'audit trail'. I aimed to do this by describing and documenting my research procedures carefully throughout the research process. According to Cochran-Smith and Donnell (2006), all forms of practitioner research share the

feature of “systematicity and intentionality” (p. 510). It was my intention that the systematic and intentional approach of this study would encourage detailed records and information, and thus result in a carefully documented research process. According to Taylor et al. (2016), keeping detailed notes helps to ensure an awareness of how the research process is shaped by the researcher’s identity and positioning. Reflexivity is an important part of research, and, as discussed earlier in this chapter, I wrote notes and reflections throughout the data collection and analysis process.

Another way to ensure that a study is trustworthy and valid is through the consistent use of a range of research tools during the research process (Snape & Spencer, 2003). The research findings in this study are based on an “explicit set of evidence” (Yin, 2001, p. 20), that is, the qualitative and quantitative data collected. Triangulation is a way to check the insights gleaned from different sources of data (Taylor et al., 2016). The one-on-one interviews were a rich source of data, and the quantitative data was used in conjunction with this to help triangulate the insights gathered from different participants. Drawing on the two different types of data allowed a deeper and clearer understanding of the students’ experiences in the school setting in relation to the phenomena in focus. My intention in this chapter was therefore to provide clear explanations as to how I collected and interpreted the data.

Yin (2011) argues that a study’s conclusions should be drawn in reference to the data, if it is to be trustworthy and credible. In this thesis I have endeavoured to be true to the students’ voices; what they said is at the heart of my analysis. My aim was to analyse the data fairly from my point of view, and to draw conclusions in reference to the data that make sense from the students’ perspectives. My presentation of the data through narrative profiles and the thematic analysis, with ample use of students’ quotations, reflects the emphasis on student voice. However, the analysis of the data privileges my voice and interpretations, as the researcher, over that of the participants.

3.4 Ethical issues

In this study, attention has been paid to both codified and relational ethics. Key ethical issues in this study related to both codes of ethical conduct as defined by the University of

Canterbury, and the relationships that were central in this research. This research was subject to approval from the Educational Research Human Ethics Committee (ERHEC) at the University of Canterbury (see Appendix 6). This means that it was required to comply with the codified principles and guidelines of ERHEC, and needed to have the informed consent of participants, guarantee confidentiality of data and individuals, avoid unnecessary deception, minimise risk to all participants, and be consistent with Treaty of Waitangi obligations.

Relationships were a central ethical concern throughout and beyond this practitioner research study. As noted by Locke et al. (2013), agreement on ethical principles does not necessarily remove the potential for ethical dilemmas in the research process. Mills and Morton (2013) emphasise that codified ethical principles “tend to presume a relatively contractual and time-limited research” (p. 148), and are less useful when “negotiating the complex moralities and responsibilities” (p. 148) of qualitative research. Indeed, the ethics of this study are not simply confined to the period of this research; instead, they are ongoing, as I write up the findings of this research in this thesis, and return soon to my position as a teacher in the school. Mutch (2005) argues that teacher-researchers need to consider carefully how to protect both themselves and their research-participants; this was crucial to my study, as I undertook this research in my own workplace. This section discusses both the codified and relational ethical issues involved in this research, and addresses how I attempted to minimise risk in this study.

3.4.1 Relationships and ethical principles

My position as an ‘insider’ researcher, as discussed in Chapter 1, meant that there could not be a ‘neat separation’ (Locke et al., 2013) between myself as the researcher, and the research context and participants. The inter-relationships between myself as researcher, my colleagues, and student-participants were a central ethical concern in this study.

Maintaining the existing professional relationships I have with my colleagues and the school was an important ethical issue during this study; upon completion of this thesis, I return to my role as a teacher at the school. Prior to seeking written permission from the school principal to carry out my research, I had already approached and had an informal

conversation with a member of the senior management team about my proposed research, and the Head of English Faculty. They indicated that they were both happy for me to carry out this study in the school. Upon gaining ethical approval from ERHEC, I clearly informed the principal of my research plans, and formally obtained permission via a consent form from the principal before I began collecting data in the school. Once consent was obtained from the principal, formal permission was then sought from the Head of English Faculty and the English teachers in order to access the classes. Staff involved were assured that the research was focussing on students, as opposed to the practices of the school and its teachers. I also highlighted that in the future, broad findings and implications from this study can be shared with my colleagues, but this must be done in a way that minimises the risk of individuals being identified. Information sheets for the Head of English Faculty and the English teacher can be found in Appendix 3.

Researching in one's own school can be problematic, particularly with regard to the power dynamics between teacher-researchers and student-participants. The power dynamic between the researcher and participants was addressed in a number of ways. Because I am both an adult and a teacher at the school, I needed to ensure that I minimised any potential for coercion. Firstly, the research was carried out with students that I had not taught before. Nor did I work with any students I was currently teaching, because I was on study leave; this meant that the research could not influence students' achievement in any way. Secondly, voluntary participation and informed consent were sought and gained, in writing, from the students and their parents/guardians. Students' were clearly informed of their right to decline participation in the research, or withdraw at any time during the process. Students and parents/guardians were made aware of the complaints procedure in the information letter and consent form (see Appendix 3 for the information letters and consent forms). The purpose of the research and its processes, and the ethical issues around it, were clearly explained. Both sufficient information was provided, and time was allowed for students to ask questions, so that they could seek clarification on any aspects of the study.

I explicitly told potential student-participants that I was a student at the University of Canterbury for the year, and also a teacher employed by Riverdale High School that would be returning to teach next year. I felt that I had a responsibility to be honest about my dual-

roles, as it is possible that I will at some point over the next three years teach one or some of the students who participated in my study. I did, however, dress informally when approaching potential participants, and also during the interviews. It was mid-winter when the data were collected, and I wore jeans, a t-shirt, running shoes and a puffer jacket on every occasion. This emphasised my identity as a student and separated me from the staff, who tend to dress more formally. Nevertheless, I felt that the students did not view me as an 'equal'; I was clearly older than them, and they knew I had previously worked as a teacher, and would be returning to school in that capacity the following year.

The interviews were recorded digitally, through an audio-recording app on my phone. Alton-Lee (2001) advocates giving student-participants full control over the recording process. In this study, student-participants had the ability to turn recording equipment off and on during their interviews, in order to ensure that they had the freedom of choice about what was recorded during the research process. This way students could signal whether or not they wanted to have a particular part of their conversation recorded; this was a way of enacting the principle of the right to withdraw from the research. None of the students turned off the recording during the interviews.

Another aspect of codified ethics that was addressed as part of ERHEC requirements, was that parental/caregiver consent was also given. This was another way to ensure that students' did not feel coerced into being involved in the study in any way. The relative status of adult researchers and younger participants could potentially make it difficult for young people to refuse involvement (Locke et al., 2013). In addition to this, 14-15 year old students are, by law, required to attend school, and thus, arguably, already in a coercive situation. Parents/caregivers have both rights and responsibilities with regard to their children's education and wellbeing. It was therefore important that parents were able to give consent for their child to be involved in this research study, where their child's involvement would entail a time commitment and additional testing.

Because the student-participants were selected from B Band classes, there was the additional risk that this would label and/or reinforce students' perceptions of themselves as 'low achievers'. I therefore had to carefully consider the way in which I presented my

research when seeking consent from potential participants, making it clear that I wished to carry out research with a range of students from different classes.

3.4.2 Confidentiality and anonymity

Qualitative research has the potential to threaten people's privacy and confidentiality (Taylor et al., 2016). Privacy, anonymity and confidentiality were therefore important issues that needed to be addressed for everyone involved in this study. All data and information obtained from the students remained confidential to me, and was not shared with the students' teachers or anyone else in the school, thus avoiding the risk of teachers making negative judgements about the student-participants. Only the student-participants were allowed to see their individual results from the Vocabulary Size Test, and it was optional as to whether students see the test results or not. All of the students chose to see their results, and three of them asked for copies of their marked test paper, which they were provided with. It was the students' choice as to whether they share their result with their parents or not. The interview transcripts in their entirety were not shared with anyone, with the exception of when I presented each individual student with the transcript of their interview for checking. The data collected was confidential to me and my supervisors. While I shared examples of the data with my supervisors as part of the data analysis process, my supervisors did not have free access to the data. Students, teachers and the school were assured that the data collected was securely stored and would remain confidential, in line with ERHEC guidelines.

Taylor et al. (2016) recommend the use of pseudonyms, arguing that the risks are substantial if participants' names are used. All people and places involved in this research have been protected as far as possible through the use of pseudonyms. Students and parents were informed that pseudonyms will be used in the final thesis to protect the student-participants confidentiality; only the researcher, the researcher's supervisors, and the three English teachers know which students from their own class were involved in the research, and only the Head of English Faculty knows which three classes were selected for this study. Once all of the data were collected, four of the students chose their own pseudonyms, and the two remaining students told me that they would like me to choose

one for them. There is, therefore, anonymity in the reporting of the data in this thesis. The participants, however, are not anonymous to me, the researcher, nor to their Year 10 English teachers, who are aware of their involvement in my study. Anonymity and confidentiality, and the limits of these, was explained carefully to all students and teachers involved. Because New Zealand is a country with a relatively small population, it is important that detailed information about the school does not appear in this thesis, to protect it from being easily identified. I have therefore masked the identity of the school by using a pseudonym for it. There are, however, limits to the anonymity of the school; this is because people who know me, including my colleagues, will be able to make the connection between myself and the school setting. Therefore, my aim was to ensure that the classes and individual students could not be identified.

All of the potential issues discussed above were addressed in further detail in my application for ethical approval to the Educational Research Human Ethics Committee (ERHEC) at the University of Canterbury. The care and safety of the students, my colleagues and myself were of utmost importance and any potential social, psychological and physical risks were considered carefully, so that these could be minimised and so that no harm came to anyone involved.

3.5 Summary

This research study was designed to capture student voice and the methodology employed reflects this fundamental aim. The phenomena being explored were the students' experiences of their vocabulary learning and acquisition, and their perceptions and understandings of themselves as readers and writers. The qualitative research design, with one-on-one interviews being the primary source of data, allowed in-depth exploration of the phenomena in focus. What the students said is interpreted and made sense of using a qualitative approach to data analysis. Analysis of the data is presented in the following chapters.

Chapter 4 – Findings: Participants’ literacy levels, group profile, and individual narrative profiles

The quantitative data and qualitative narrative analyses in this chapter provide insights into participants’ individual experiences of vocabulary learning, reading and writing at secondary school, and their understandings and perceptions of themselves as readers and writers.

Chapter 4 begins by presenting the quantitative data in a table (see Table 1). This data provided some evidence around the vocabulary and reading levels of individual students, and their literacy strengths and challenges, and is used descriptively to create a profile of the participants as a group. The quantitative data is also used to contribute to the narrative profiles of each individual participant.

This chapter then provides a qualitative analysis of both the qualitative and quantitative data, as outlined in Chapter 3, in the form of a Narrative Profile for each individual participant. The aim is to describe the participants’ individual experiences of vocabulary learning, and reading and writing in the classroom, and make some interpretations about their experiences and perspectives.

Finally, this chapter summarises the key interpretations from the quantitative data and the narrative profiles in relation to the research sub-questions.

4.1 Participants’ literacy levels

The quantitative data was not subject to statistical analysis due to the small number of participants in this study. It has been used instead to create a profile of the group of participants, describing their levels of achievement and literacy challenges, and the variations in and between test results for individuals. The quantitative data is part of the information available on the participants’ literacy performance as individuals, to help identify specific areas that they may struggle with, and highlight the unique and different needs of the participants. The quantitative data is collated into Table 1.

Table 1 - Quantitative Data: Assessment Results

Class number	Student-Participant	Age	Written Receptive Vocabulary July/August 2019	PAT Reading Comprehension Raw Score March 2019	PAT Reading Comprehension Stanine March 2019	e-asTTle Reading Comprehension curriculum level + total score December 2018	Self-efficacy Total Score /40	Area of lower self-efficacy in questionnaire
1	Arya	14	12,800	33/42	7	No results	34	writing
1	Jeanette	14	12,200	27/42	5	4P (1488)	24	writing
2	Tom	14	13,200	31/42	6	4A	25	writing
3	Ashley	14	11,200	25/42	5	3P (1403)	26	writing
3	Olivia	15	10,400	14/42	3	2A (1371)	28	reading
3	Poppy	15	10,400	17/42	3	4P (1474)	31	reading

The students are ordered from top to bottom according to the sequence of recruitment and subsequent quantitative data collection. Students were also interviewed in this order.

An average 14 year old native English speaker has a written receptive vocabulary of 11,000-12,000 word families (Nation, 2012).

An average 15 year old native English speaker has a written receptive vocabulary of 12,000-13,000 word families (Nation, 2012).

Stanine 5 is the New Zealand mean/average.

The mean curriculum level for a student at the end of Year 9 is 4A (e-asTTle Help, 2019)

4.2 Group profile

In this section, the quantitative data is used descriptively to create a profile of the participants as a group. The results from the PAT reading test and the Vocabulary Size Test are the most recent measures of students' reading comprehension levels and vocabulary sizes. These results are examined first, in order to identify students who may be struggling with their literacy learning. The e-asTTle reading test results are then discussed, in comparison with the PAT reading test results. Finally, the students' responses to the self-efficacy questionnaire are examined, and some conclusions are drawn around the participants as a group.

The raw scores from the PAT Reading test results, taken in March 2019, were converted to stanines which showed the students' reading results in a New Zealand context. This data seemed to consistently correspond to the results from the Vocabulary Size Test that was administered to the students in July/August 2019, as expected from the research demonstrating a strong correlation between vocabulary and reading comprehension skills for adolescents (Vellutino et al., 2007). Tom and Arya are reading above the New Zealand average for Year 10 students, at stanines 6 and 7, and have the largest written receptive vocabularies, of 13,200 and 12,800 respectively. The students with the lowest reading scores, Olivia and Poppy, are both reading at stanine 3, 'below average' for a Year 10 New Zealand student (Darr, McDowell, Ferral, Twist & Watson, 2008). These students also produced the lowest scores in the Vocabulary Size Test, with both of them having a written receptive vocabulary of 10,400 word families. Jeanette and Ashley are both reading at stanine 5, the New Zealand average for a Year 10 student; there is, however, a difference of 1,000 word families between these two students' vocabulary sizes. This is investigated further in the students' individual narrative profiles. The range in written receptive vocabulary size scores across the six participants in this study supports the finding by Coxhead et al. (2014) that there is substantial range of receptive vocabulary scores at any age level.

While all of the participants are working within B band classes, the results from both reading tests imply that there is a significant spread of reading levels across the group. There are,

however, some inconsistencies between the two reading tests. The e-asTTle test results suggest that at least four of the participants are reading below the mean level; however, the PAT reading test results identify only two of the participants as reading below the mean level. The most obvious inconsistency between the two test types are Poppy's test results. This inconsistency is explored in Poppy's narrative profile, later in this chapter, and also in Chapter 6. Despite the discrepancies between the results of the two reading tests, the descriptive data available from these standardised, commonly-used reading assessments show considerable variation in reading achievement amongst the participants.

The self-efficacy questionnaire used in this study made it possible to identify a disconnection between reading self-efficacy and writing self-efficacy before the interviews. The most consistent pattern across the questionnaire responses was that the first four students expressed lower self-efficacy in writing tasks than in reading tasks. These four students are the students that gained the higher scores in the Vocabulary Size Test, with written receptive vocabulary sizes ranging from 11,200 – 13,200 words. The two remaining students both have written receptive vocabularies of 10,400 words, and both indicated in the questionnaire that they have lower self-efficacy in reading tasks than writing tasks. Five out of six students in this study indicated that they feel more confident in learning new words than in using new words in their writing. This disconnection between reading self-efficacy and writing self-efficacy was investigated with all six students in the interviews, and will be discussed further in the individual narrative profiles in this chapter, and in Chapter 5.

While the purpose of the self-efficacy questionnaire was to look at the students' responses to individual items, for example, particular types of reading and writing tasks, a total score out of 40 was obtained for each student by summing the 8 items. Initially, it seemed as if totalling the scores oversimplified the data and masked the individual differences in the students' responses in the questionnaire. However, once the interviews were complete it became evident that the students that exhibited more anxiety around their reading and writing had tended to produce lower scores overall than those that seemed more confident or less concerned with their literacy learning. The students were questioned explicitly during the interviews about their confidence in reading and writing (see Appendix 4). The students'

overall self-efficacy scores are discussed further in the individual narrative profiles, in relation to what they said in the interviews.

It is important to highlight here that it is difficult to make generalisations from the quantitative data and conclude from it which of the participants are struggling significantly with their literacy learning. The data strongly suggests that certain individuals may be struggling considerably with some or multiple aspects of their literacy learning secondary school, however, this data provides a very limited understanding of the nature of these struggles. It seems that there are more questions raised around students' individual challenges with literacy than answers provided by the quantitative data. This invites further exploration through individual narrative profiles, focusing on the individual literacy learning experiences of each student.

4.3 Individual narrative profiles

In this section I introduce each research participant, and provide a qualitative analysis of their individual experiences and perceptions of vocabulary learning and reading and writing at secondary school. The quantitative data is used descriptively here, in conjunction with the qualitative data, to contribute to the profiles of the individual participants.

In each profile I begin by stating my impressions of the participants and the interview, and provide information around their vocabulary sizes and reading levels. I then discuss what the students said in the interviews, providing some of my own researcher interpretations around what they said about their unique situations and experiences.

While this is the overall structure for most of the narrative profiles is similar, some of them deviate slightly from this. This is because the structure of each narrative profile reflects the path the interview took with each student; for example, very early on in the interview with Olivia she explicitly discussed, without any prompting from me, the importance of positive relationships with her teachers for her language learning. Therefore my narration of her experiences incorporates the timing and prominence of this discussion in her narrative profile.

4.3.1 Narrative profile: Arya

Arya was the youngest participant, having only turned 14 at the start of the school year. She was also the only participant for whom English was not their first language. She attended primary school in her native country in South Asia, before moving to England, and then moving again to New Zealand, where she began intermediate school. Arya speaks her “*mother tongue*” at home. She also reads books and articles in both her first language and English at home. Arya speaks fluent English, and there were no problems for either of us understanding each other during the interview.

Arya’s results from the quantitative data collected place her as a Year 10 student with strong literacy skills. There were no e-asTTle results for Arya, which most likely means that she was absent the day the test was administered. According to the PAT test, Arya is reading at stanine 7, two stanines above the New Zealand average in terms of her reading comprehension. Arya’s written receptive vocabulary size is 12,800 word families. I asked each student if they thought they had a strong vocabulary (see Appendix 4), and Arya replied, “*it’s a bit above average, I would say...but that’s about it...*” I inferred from this comment that she suspects her vocabulary size is above average, but that that in itself is not particularly significant or impressive. Arya very easily articulated her thoughts and feelings about her vocabulary learning and reading and writing experiences at secondary school. She often gave specific examples from lessons when discussing her learning, and was the only student to give examples of morphological instruction given by one of her teachers. Having English as her second language might explain why her vocabulary size was not the largest of the participants in this study; however, her PAT test places her as having the highest reading comprehension level of all of the participants in this study. It may be that her enthusiasm for reading fiction, which she discussed in the interview, has contributed to this.

Despite having some misgivings about not being a native English speaker, Arya came across as the most confident student with regard to her reading, writing and vocabulary acquisition skills, and this was reflected in her score of 34 out of 40 in the self-efficacy questionnaire. Arya appears to derive enjoyment and satisfaction out of both reading at home, and reading

and writing at school. She said she really likes books, and that she really likes writing essays. She identified science and English as being the subjects with the most difficult language, but she said that texts in science were harder to read than texts in English because *“they take more effort to like actually understand”*.

Arya’s responses in the self-efficacy questionnaire indicated that she finds writing more challenging than reading. However, as we discussed reading in comparison to writing in the interview, there was some inconsistency between her questionnaire responses and what she said to me. When asked in the interview if she saw herself as a confident reader, she said that she did, *“most of the times”*. When asked her if she felt she was a confident writer, she responded, *“Yeah, much more than reading.”* She went on to explain this mismatch, speaking specifically about assessment situations, where, *“I think it’s more stressful um when you’re reading it...it’s much harder for you to like um one hundred percent understand what the writer is trying to say.”* Arya seems to be cognizant of the role of authors’ purpose in texts, and the importance of inferencing in the reading process. Despite some self-doubt about her reading accuracy, Arya appears to be able to engage with written texts, and has relatively high self-efficacy when it comes to both reading and writing.

After the interview, Arya expressed what I perceived as a bit of embarrassment about being bilingual and her English therefore not being as good as a native speaker’s English. I wanted to ask her a couple of follow-up questions in response to things she had said, so I emailed her. She emailed me back with thoughtful, thorough and well-written responses. She acknowledged that there were *“social communication and mental benefits”* in being able to speak two languages. However, she pointed out that most of the teaching and learning in the New Zealand classroom is in English so being bilingual does not give her a *“head start”* in any of her subjects, especially English or mathematics, and therefore she doesn’t *“see it as being a significant advantage for my learning at Riverdale High School.”*

4.3.2 Narrative profile: Jeanette

Jeanette's attitude to school was very positive, and she seemed very engaged with her learning. Before the interview, I was aware that Jeanette had Special Assessment Conditions (SACs) for school assessments, and that this was because she has dyslexia. In the interview, Jeanette said that her dyslexia was diagnosed at around seven or eight years old. She said that the subjects she finds the most challenging are mathematics and science, and she talked about the difficulties of understanding "wordy" texts, meaning texts with many long words in them. She also mentioned that assessments with lots of reading were more stressful for her than assessments with lots of writing.

Jeanette's results across the quantitative data place her as reading at an average level for a New Zealand student in Year 10. She is currently reading at stanine 5, according to the PAT test, and the 2018 e-asTTle reading test placed her as reading at curriculum level 4P, which is also average for a student at the end of Year 9. Jeanette is 14 years old, and her written receptive vocabulary size is 12,200 word families. When asked if she thought she had a strong vocabulary, she said, *"I hope so!"* When she saw her vocabulary size score from the vocabulary test, she seemed pleased. She commented that it shows that *"reading outside of school does help"*, associating her high vocabulary score with reading at home.

Jeanette spoke in detail about her enjoyment of learning, and named two compulsory and two optional subjects as her favourites; science, English, art and environmental science. She said, *"I like science, but it's not always easy."* Despite the challenges of learning in science, Jeanette chose to take an optional science subject in Year 10. She said that in science she likes *"learning about the earth and what makes everything everything,"* and in environmental science she enjoys *"learning about the environment... horticulture and things."* When discussing English, she said that *"I like English 'cos I enjoy things like reading, not so much spelling and stuff, but I don't mind essays and things"*. The challenges of literacy learning in both English and science for Jeanette seem to be outweighed by the enjoyment she derives from engaging with the content.

Jeanette was conscious of how her enjoyment of a subject impacts on her achievement in it, saying that English is *“one of the subjects I achieve highest in probably as well ‘cos I like it.”* Jeanette identified particular reading and writing tasks in English that she liked. She said, *“I’m enjoying reading The Outsiders. Like I love fictional stories with friendship and things I find them pretty motivating I guess”*. Jeanette also talked about writing essays in English, saying *“I like essays. I don’t know why. My friends think I’m insane because I like them, but I dunno I just find them quite easy to write once I get into the flow of things.”*

From the interview, Jeanette appears to have relatively high self-efficacy in both reading and writing across her subjects. When I asked her if she sees herself as a confident reader, she replied, *“I enjoy reading but like I’m not really thinking when I am so it’s kinda like just a mindset I’m in when I’m reading, so I’m not really thinking like ‘oh yeah I’m pretty confident”*”, meaning when she’s actively reading a text she is fully absorbed in what she is reading and therefore isn’t consciously thinking about her reading skills. However, Jeanette produced the lowest total score of any of the participants in the self-efficacy questionnaire, of 24 out of 40. This may be an indication that she is more conscious than other students of the extra challenges she faces in reading and writing as a student who has dyslexia. I asked Jeanette if she thought that because she has dyslexia she has to work a bit harder than her classmates when it comes to reading and writing. Initially she seemed to think so, saying, *“Probably I’d say,”* but then she added, *“I don’t know. I don’t really know how anyone else thinks, so I, so I can’t really pinpoint anything there.”*

Jeanette spoke positively about the support she gets for her learning. She outlined the types of support she receives from Riverdale High School as a dyslexic student, in particular mentioning help she has had from the school’s Learning Centre. She was complementary of her teachers, saying, *“teachers are pretty supportive around here.”* In addition to support from the school, Jeanette receives a significant amount of support from home. She told me how she was stressed about the final test for science, last term, saying, *“I got like a lot of help from my mum.”* She said that her mum does the same for mathematics too, and is always willing to help her.

Jeanette talked about her mum multiple times during the interview. Jeanette told me that her mum is a *“big reader”* and encourages Jeanette to read too. She said that, *“she’ll give me a book and be like ‘just read it’, and I read it, and its good”*. When I asked her if she enjoyed learning new words, she said she did and that she likes asking questions, commenting, *“I remember when I was little I’d always used to like point at things or when my mum was talking I’d be like, ‘wait, what does that mean?’ I just remember being lectured about what that means forever, my mum is not very good at explaining things.”* She laughed after she said this, as she reflected on her mum taking too long to explain the meaning of a word, but it seemed to me that she appreciates the effort her mum goes to, to help her learn and understand new words.

4.3.3 Narrative profile: Tom

Tom was friendly and articulate in our conversation, and he spoke at length with me about his challenges with writing at school. Tom’s interests are cars, computers, video games, and things that are *“futuristic”*. Tom’s favourite subject at school is digital technologies, and he spoke enthusiastically about projects that he has been working on in digital technologies and electronics, another of his optional subjects in Year 10. Tom talked about potentially working in the IT and Tech industry in the future.

Tom is 14 years old, and has a written receptive vocabulary size of 13,200 words. When I asked Tom if he thought he had a strong vocabulary he responded, *“for my year level I think have probably above average”*. Despite his relatively large vocabulary size, and that fact that he is reading at stanine 6, one stanine above the New Zealand average, Tom only reads at home when he is told to by his mum. He said he enjoys reading the Cherub books, and catalogues, such as Noel Leemings catalogues. He said that sometimes he helps his younger sister with her reading before she goes to bed.

Tom’s responses in the self-efficacy questionnaire showed a disparity between his self-efficacy in reading and writing, and this disparity became augmented in the interview. Tom identified English as the subject he finds most challenging at school, explaining how he is, *“good at reading, never good at writing”*. Tom’s past experiences appear to have shaped his

view of himself as a weak writer. His confidence in his writing skills was visibly lower than his confidence in his reading skills as he spoke in depth about the difficulties he faces in writing. Specifically, he identified his inability to develop his ideas and structure his writing into paragraphs as a barrier to his achievement, particularly in English. It seems that the increase in both the quantity and quality of writing that he has to produce at secondary school are significant hurdles for Tom. Tom produced a relatively low total score in the self-efficacy questionnaire, with 25 out of 40, reflecting the concerns and anxiety around his writing and achievement that he expressed in the interview. Tom was the only participant in this study who said in the interview that assessments with lots of reading were easier than assessments with lots of writing.

Tom appreciates having clear, detailed instructions and well-scaffolded tasks when he writes. Tom talked about writing in subjects other than English where it's, *"far more simple, you just have to explain what something does, and it doesn't matter if you can spell"*. He discussed how he likes having something to follow when he writes, such as a template, and talked about a toy design task in digital technologies where *"we had to just follow this document, and this just had instructions what to do."* Tom also said, *"If I'm giving-, given something to write about I normally can do it pretty well"*. Tom is confident in his abilities to produce informational texts but is less confident with regard to writing persuasive essays and producing creative writing. He also mentioned that he types faster than he writes, and that he appreciates being able to use spellcheck and grammar check functions when he types.

In the interviews, I asked all of the students about how they found assessments at secondary school (see Appendix 4); Tom talked considerably more about assessments than any other participant. Tom was very conscious of the impact his written work has on his assessment results, and the way in which this might affect his ability to get into *"high classes"* the following year, particularly with regard to science and mathematics. He talked about the Year 9 exams, and how he *"struggled with getting everything down in time"*.

Tom wants teachers to be very explicit about what he should do and give him clear outlines, both with writing tasks and assessments. *"Going into exams, the teachers need to prepare*

us...give you like a piece of paper, a list of things you need to focus on, and everything you're good at you don't need to focus on so much." Tom has an expectation that his teachers should support him more with his learning and writing.

4.3.4 Narrative profile: Ashley

Ashley came across as an outgoing student who openly shared with me the difficulties and successes she has experienced with literacy learning at secondary school. Ashley was reflective, and seemed acutely aware of the challenges she faces in language learning; she mentioned numerous times in the interview that she struggles with literacy, specifically vocabulary and reading comprehension.

Ashley is 14 years old, and the Vocabulary Size Test shows that Ashley has a written receptive vocabulary of 11,200 words. While this is on the lower end of average for a 14-year-old student, Ashley was able to express her thoughts and feelings very clearly in the interview, and at one point when she was talking about new vocabulary she learnt in drama she explained the word 'lazzi' to me, as I did not know what it meant. However, when I asked Ashley if she thought she had a strong vocabulary, she responded, *"No. I've always struggled in that."*

Ashley's 2018 e-asTTle reading score placed her reading at curriculum level 3A, one curriculum level below the New Zealand average, however, her PAT reading test result from 2019 placed her at stanine 5, indicating that she has made significant gains since last year in her reading comprehension. Ashley is currently reading at the mean level for a New Zealand student in Year 10. It became clear during the interview that Ashley does not have any problems decoding words, but struggles to comprehend the meaning of what she has read. She spoke in detail about what she experiences when she is trying to understand a challenging written text, saying, *"I read something, but I don't actually know what it means."* She says she can easily read something aloud, but that she then struggles to explain what she's just read in her own words.

Ashley really enjoys drama and spoke about how Year 10 drama has “boosted” her confidence, particularly with regard to reading, speaking and performing. Ashley also said that she loves doing research assignment in social studies, as she enjoys looking at websites and articles and finding interesting facts. Ashley said she enjoys learning new words: *“Yeah in science I feel real smart when I learn new words, I’m like oh my God I’m a scientist.”* She laughed at herself as she said this, but then she went on: *“Like if um, yeah, like it makes me feel more smarter, but then I kinda just forget them – like I remember the words but I’ll forget the meaning of it, yeah what it is and everything.”* Ashley talked at length about the importance of revision and repetition, identifying these as pedagogical approaches that she thinks help her language acquisition, and learning in general.

Ashley spoke about the pressure of assessments that require lots of reading. She said she struggles with *“reading and time”*, meaning that she takes a long time to read and comprehend a text, and that this is a barrier to her achievement in formal assessments and examinations. The challenges Ashley faces with comprehending text also impact on her ability to read extended texts, in particular, novels; she said that she’s *“never finished a book in my life”*. Ashley also commented that she’s, *“never really been a book kind of person”*, identifying herself as a non-reader; it was as if she had concluded that there are ‘book people’, and that she is not one of them.

Ashley produced a relatively low total score in the self-efficacy questionnaire, of 26 out of 40, reflecting the concerns and anxieties she expressed in the interview around her literacy learning. Ashley’s responses in the self-efficacy questionnaire indicated she has lower-self-efficacy in writing than reading; however, the interview revealed that Ashley’s anxieties around reading are considerably greater than any concerns she has with her writing. It became clear in the interview that Ashley’s self-efficacy in reading extended texts and novels is very low, especially in comparison to her self-efficacy in reading shorter, non-fictional texts.

In comparison to reading, Ashley said she likes writing. She prefers keyboarding to writing by hand, and she said that she requires clear direction, reassurance and guidance from her teachers in order to build her confidence in her writing skills. Ashley is conscious of how her

motivation affects her written output. She is also aware that her subjects in Year 11 will require considerably more writing than they did in Year 10. Ashley said that one of the reasons she chose drama for Year 11 was because it would give her literacy credits, indicating that she needed this because her English skills were at a low level.

Ashley spoke positively about the support she receives from her subject teachers, her mum, and also the tutoring she has been receiving this year, via Kip McGrath, for mathematics and English. She said: *"I do out of school tutoring as well... I wasn't too sure cos I got granted um, a thousand dollars by um my Ngāi Tahu tribe... so I was like well, may as well put that to good use."* She said that the tutoring is *"really good"* and that in her English tutorial they are working on improving her vocabulary, as well as her reading comprehension skills. I got the impression from her comments around the subjects she has chosen for the following year, and her decision to get some out-of-school tutoring, that Ashley is trying hard to prepare herself to meet the challenges she will face in her senior years of secondary school.

4.3.5 Narrative profile: Olivia

While she initially seemed quite reserved, Olivia was very candid in our interview as she shared with me her experiences of literacy learning at secondary school. Early in the interview Olivia talked about the positive relationship she had with her Year 8 teacher, saying *"she was like family to all of us"*, 'us' being all the students in her Year 8 class, and she talked about her sadness in leaving her teacher behind when she began secondary school. It was clear to me that she had formed a strong bond with her Year 8 teacher.

Olivia talked about how she dislikes science because she doesn't like her teachers; this year, Olivia has two science teachers that share the workload of her Year 10 science class. In contrast, she said she enjoys English, and commented on how when she doesn't understand a word used in English she can ask the teacher what it means because she likes her teacher. Olivia identified science and English as being the subjects with the most challenging vocabulary. The difference between the relationships with her science teachers and her English teacher means that she is happy to ask for help in English, but not in science. It was clear to me that Olivia was more engaged with her learning in subjects where she felt she

had a good relationship with the teacher, as she could recall specific topics and activities from these subjects.

Olivia is 15 years old. Her written receptive vocabulary of 10,400 is slightly lower than what would be expected for a 15 year old. Olivia is reading towards the lower end of stanine 3, according to the PAT reading assessment guidelines (NCER, 2008), significantly below the New Zealand average for a Year 10 student. Olivia's score in the 2019 PAT reading comprehension test aligns easily with her 2018 e-asTTle reading result. In the e-asTTle reading test was placed as reading at curriculum level 2A, six curriculum sub-levels below the New Zealand mean; this can be converted to stanine 2 using the stanine conversion table (Brown, 2015). The e-asTTle and PAT data together indicate that Olivia consistently struggles with reading comprehension, and that she will need extra support for this.

Before the interview, I was unaware that Olivia has dyslexia. It wasn't until she talked about learning French that I became aware she has been diagnosed with dyslexia. She said: *"I just find it hard to pick up another language...because I've got dyslexia, so it's, that's difficult, like, one, learning about English, and then going to French in a different language is, a lot difficult"*. Olivia told me that after receiving extra help for reading during her primary schools years, someone at her primary school recommended that her mother get her tested, and then she said she *"probably found out in Year 5 I was dyslexic"*. Olivia does not receive any extra reading tuition from Riverdale High School's Learning Centre, nor does she have any SACs for her assessments. I found this piece of information surprising, as I was under the impression that any student who had a diagnosis of dyslexia would automatically be receiving extra support from the school's Learning Centre, especially for assessments.

Olivia's total score in the self-efficacy questionnaire was 28 out of 40, higher than three other participants' scores. In the interview she did seem to be less anxious about her academic achievement than many of the other participants, despite her dyslexia being a significant barrier to her literacy learning. Olivia's responses to individual items in the self-efficacy questionnaire indicated that she has higher self-efficacy in writing than in reading, and that she has higher self-efficacy in using new words in her writing, compared with

learning new words. The interview confirmed both of these responses, reflecting her particularly low self-efficacy in reading.

Olivia talked in detail about the challenges she faces with reading. She said that she used to get her b's and d's mixed up, and then added, "...which I still do...". When talking about reading short paragraphs, she said *"I don't find it difficult to read it in my head,"* but mentioned twice during the interview that she hates reading aloud, saying, *"I hate reading in front of people"* and *"I, like, muck everything up if I read it out loud."* Olivia seems to struggle with decoding text, which is unsurprising for a student diagnosed with dyslexia. Olivia said she doesn't like reading, and struggles to read long chunks of texts, including the novels studied in English. When I questioned Olivia about what she reads outside of school, she said she doesn't read at home, but when I asked her later on if there is anything that she would be motivated to read, she said that she might sometimes read an article that she comes across *"on like Instagram or something that I wanna read"*. It seems that Olivia is only motivated to read a text when the interest she has in it exceeds the difficulties she will face in reading it.

Despite Olivia's reading results in both the e-asTTle test in 2018 and the PAT reading test in 2019 indicating that she needs extra support with her literacy learning, Olivia does not receive any extra support for her literacy learning, from either inside or outside of school. When I asked Olivia if she could get help from anyone at home if she is struggling with something at school, she said, that her mum *"doesn't mind what my grades are as long as they're not really really bad. And she knows that I don't like science, and mum knows that I'm not gonna be like a scientist or something, so she's like, just do your best, that's all she can ask for."*

I got the impression that Olivia felt some shame around her struggles with reading and her dyslexia. It is clear from what she said that she is anxious about making mistakes when she is reading in front of people. When talking about delivering speeches in English she said, *"I refuse to read them out loud."* It appears that one of her strategies to deal with any potential for embarrassment is to avoid revealing that she is struggling and instead pretend she is coping; she said, *"I just sit there in French and act like I know what I'm doing."* Olivia

also commented, *“you can’t tell that I have it”*, referring to her dyslexia, and went on to explain how her mum told her that she’s *“actually quite mature when I talk, so you can’t tell that I have dyslexia.”* Olivia is conscious of the invisibility of her learning disability, and how it can remain hidden to people around her. Olivia also seems to have accepted an identity for herself as a ‘hands-on person’, or someone who is practical, or kinaesthetically inclined, saying, *“like apparently I’m a more of a hands on person, according to Mum.”* When discussing the subjects she has chosen for NCEA Level 1, she said that her mum suggested that she take the subject food and hospitality, because, *“Mum’s got a degree in that, so she said that’s something that I would do, cos again it’s a more hands-on thing.”*

In comparison to reading, Olivia gets some enjoyment and satisfaction from writing at school, particularly in English. She spoke about an essay she wrote recently in English for which she gained a Merit, saying that the teacher *“thought like my essay was quite good, so I’m quite proud, proud of that.”* When I asked Olivia if she felt more confident in writing than in reading, she responded that she did *“cos I know what I’m doing.”* When questioned her about what helps build up her confidence in writing she responded *“a nice teacher”* that *“helps you”* and *“encourages you to, like, do it”*. Olivia could not identify anything that teachers could do to improve her confidence in her reading.

4.3.5 Narrative profile: Poppy

Poppy was the least conversational of the six participants. She often gave me one word answers to questions, and it was difficult to get her to open up and talk to me about her experiences of literacy learning, and her personal thoughts about it, in detail. Poppy’s responses to my questions were at times contradictory; she would give me a response, but then later on she would say something that conflicted with she had said earlier. My impression was that she struggled to reflect on her learning as I asked her questions, and she seemed somewhat disengaged overall from her learning. However, I also think there was some shyness and defensiveness, possibly related to embarrassment around her struggles with literacy learning, which may have affected her willingness to open up during the interview.

An obvious inconsistency in the quantitative data collected around Poppy's achievement was the difference between her PAT reading comprehension result and her e-asTTle reading result. In December 2018, Poppy's e-asTTle result was 1474, placing her at curriculum level 4P, that is reading at curriculum level 4, only one curriculum sub-level below the New Zealand mean for students at the end of Year 9. According to the stanine conversion table (Brown, 2015), a score of 1474 by a Year 9 student during Term 4 is the equivalent of stanine 4 in a PAT reading test. However, her PAT reading test result from March 2019 indicates that she is reading at a lower level than this; she scored 17/42 and is therefore placed at the upper end of stanine 3, two stanines below the New Zealand average of stanine 5, which means she is in the bottom 25th percentile of New Zealand students for reading comprehension. This means that she will most likely struggle with reading some texts, and need extra support for her literacy learning.

It is difficult to determine why Poppy scored a slightly below-average result in the e-asTTle test in December, and then produced a considerably lower score in the PAT reading test in March. The measurement error for e-asTTle reading tests is +/- 22 points, which would still place her as reading at curriculum level 4. It would be very difficult for Poppy to randomly guess the answers in an e-asTTle test and score 1474, and therefore the test result implies that she made a considerable effort during this test. It is possible that her result in the PAT reading comprehension test is lower than she could have potentially scored but because I do not know the conditions of either test, it is hard to say what time of day, or state of mind Poppy was in, when each test was administered. Alternatively, it is possible that Poppy's reading comprehension has regressed in the four months between the two tests; this would, however, be very unusual. This inconsistency between the two test results could be understood as an issue with Poppy, or as an issue with the validity of the tests, or the conditions under which the tests were administered, but it is difficult to be conclusive here. Nevertheless, the inconsistency indicates that a single assessment, taken at one moment in time, may not be a very reliable indicator of students' ability or understanding.

Poppy's responses in the self-efficacy questionnaire indicated that she has lower self-efficacy in reading than in writing, and it became clear to me early on in the interview that Poppy potentially struggles with reading at school when she commented on how in primary

school, *“they help you more. And then like at, at high school they just tell you to read a book.”* I inferred from this that Poppy appreciated the support that her primary school teachers provided for her in her literacy learning, and that at secondary school there was considerably less support for her. Poppy said that she didn’t read the novel in English this year, because it was given to them to read as homework, and *“I read like 17 pages but then I gave up.”* Poppy clearly has low self-efficacy in reading novels and other extended texts. She said, *“I just like, don’t read.”* Poppy commented on the reading she has to do in drama; I asked her if she enjoyed reading scripts, and she responded, *“yeah but no”* and went on to explain that they were expected to memorise scripts but that she couldn’t remember her lines.

Poppy speaks English at home, and sometimes speaks some te reo Māori although she said she is not fluent in te reo. Poppy said that she does not read at home, however, she also said that she reads a bit online - mostly comments and messages on social media sites. She added that she sometimes reads the news on stuff.co.nz, such as sports news, and that she might read texts *“about the sport and stuff”*, meaning non-fiction texts about specific sports. Poppy is interested in sport, and has chosen PE as one of her optional subjects for Year 11.

When I asked Poppy about her favourite subjects at school, she said, *“I like them all I guess apart from science”*. When I prompted her to explain why she didn’t like science, she replied, *“it’s just not me”*. Poppy seemed to have concluded that she is inherently unsuited to science. However, later in the interview when I asked her if science had difficult language to understand in it, she responded, *“No.”* Then, when I questioned her about the language in mathematics, she responded, *“I hate maths”*. I got her to explain why she hates mathematics, and she said that her mathematics teacher doesn’t help her, and that she doesn’t always understand the writing used in mathematics questions. When I asked her if her mathematics teacher ever tries to help her by explaining the questions to her she responded, *“Yeah, but like not to like the point where I’d actually understand.”*

Poppy identified English as being the subject with the most difficult language to understand, but she could not pinpoint for me exactly what type of language was difficult, saying, *“I dunno, I just struggle in English sometimes.”* However, later in the interview, she mentioned

that *“long words”* can be difficult to understand. Poppy’s written receptive vocabulary size is 10,400 words, and when asked if she thought she had a strong vocabulary, she responded, *“I dunno.”* When asked if she enjoyed learning new words, she replied, *“sometimes”*, and explained this was because, *“I learn like what they mean and stuff, and then I can use them.”* I asked her how she found using all the new science words in her writing, and she replied, *“Um OK. I just gotta know what they mean.”* Poppy could not pinpoint anything specifically that might be useful for vocabulary learning in her subjects.

Poppy told me that she enjoyed creative writing most, of all the types of writing she was expected to do at school; she said this was because she could write freely, and didn’t have to *“focus on one thing”*. In contrast, she said she does not like writing essays. She said that she always turned her essays *“into a plot”*. She appears to struggle with structuring her ideas, and possibly also with developing them fully, in her writing. Poppy said that she does not feel stressed before assessments, and indeed she gave me the impression that she felt quite relaxed about her learning and achievement overall, however, as discussed earlier, she could have been masking her genuine feelings. Poppy’s generally unconcerned attitude to her learning in the interview is reflected in her total score of 31 out of 40 in the self-efficacy questionnaire, a relatively high score in comparison to most of the other participants.

My perception is that Poppy is struggling with literacy learning in English, mathematics and science, particularly with the reading that she required to do in these subjects, and also with the essay writing she is required to do in English. It appears that the challenging nature of the texts she has to read is a significant barrier to her understanding the content in all three of these subjects. However, I was unable to ascertain whether it was vocabulary or a different aspect of linguistic or cognitive processing that is hindering her ability to comprehend the subject matter that she is required to read in her classes.

4.4 Summary

From the initial analysis of the quantitative data, it appeared that it might be possible to identify a range of different groupings of the participants, based on their vocabulary sizes and their PAT and e-asTTle reading results. However, this was problematic because of the

very small sample size. Instead, it was more appropriate to look at the individual students up close, using both the qualitative and quantitative data.

Despite their selection from Year 10 'B band' classes, this is not a homogenous group of students. While the quantitative data implied that some of these students might experience difficulties and challenges with their vocabulary learning, reading and/or writing at secondary school, deeper engagement with the qualitative data revealed the unique experiences of each student in school, the complexities of their individual struggles, and the differing sources of these struggles.

It is important to highlight the diversity of experience at Riverdale High School amongst the participants in this study. The narrative profiles show that there appears to be a range of experiences of vocabulary learning in the classroom amongst the students, and an even wider range of self-efficacy levels across the students, both within and across the two domains of reading and writing. Many of the participants exhibited low self-efficacy in particular reading or writing tasks in certain subjects. This invites consideration of the commonalities and differences between these students' experiences and perceptions, which are explored in greater depth in the thematic analysis and discussion of findings in Chapter 5.

Chapter 5 – Findings: Thematic analysis

The themes presented in this chapter emerged from the thematic analysis of the qualitative data. Themes were generated from the students' responses, as opposed to the questions and prompts used during the interviews; however, the nature of the topics discussed during the interview elicited fairly specific discussion around the phenomena in focus in this study. The themes identify the commonalities, differences and patterns across the qualitative data, and provide in-depth understanding of the students' experiences of vocabulary learning in the classroom, and their self-efficacy in reading and writing at secondary school.

Each theme is presented using students' quotations, which are in quotation marks and have been italicised. The emphasis of analysis is on student voice: that is, what the students said about their experiences of vocabulary learning and reading and writing at secondary school. Connections are made with research literature from Chapter 2 in order to help interpret and explain what is happening for the students. Consistencies and inconsistencies between the students' experiences and the research literature are examined, in order to highlight areas that require further discussion and exploration.

The themes are:

1. The challenges of learning new vocabulary
2. The differences in reading and writing across the subjects
3. The pressure of assessments
4. The importance of teacher-student relationships
5. Having dyslexia
6. Formal and informal support for students' literacy learning
7. Building students' confidence in reading and writing

While the themes are presented as distinctive aspects of students' vocabulary learning and reading and writing experiences at Riverdale High School, it is important to recognise that these themes are interconnected and overlapping.

5.1 The challenges of learning new vocabulary

When I asked the students if they enjoyed learning new words, they all acknowledged that they did. Poppy said this was because she learns, *“what they mean and stuff, and then I can use them”*, and Jeanette said *“Yeah, I like asking questions and things”*, and talked about how she would ask her mum what words mean. Tom commented that he liked learning new words, *“as long as they have a purpose and I’d actually use it”*. Some of the students, however, whilst acknowledging that they appreciated learning new words, described some of the difficulties they face in vocabulary learning. Ashley said, *“I feel real smart when I learn new words, I’m like oh my God I’m a Scientist. Like, it makes me feel more smarter, but then I kinda just forget them – like I’ll remember the words but I’ll forget the meaning of it”*. Arya noted that *“it does take me a while to like actually memorise them and use them”*.

Many of the students identified long words as being difficult to learn. Olivia said that she liked learning new words, *“as long as they’re not really long words”*. Arya said that in English she found *“new words and um especially long ones that have like quite a specific meaning”* more challenging to learn. When discussing reading texts in her classes, Jeanette said, *“I find wordy ones kind of hard. Like, lots of ones with big long kind of words.”* Ashley said the level of difficulty in reading texts, *“just kinda depends on the kinda story or like the topic and how advanced like the wording is and everything”*. Poppy also commented that *“long words”* were some of the more challenging words in English. The two subjects most commonly identified by these students that used long words and difficult new vocabulary were English and science.

Many of the students had a substantial amount to say about what helps them learn new words in the secondary school classroom. Arya said, *“every time I don’t understand something like a meaning of a word I would probably ask the teacher before grabbing a dictionary because like their explanation for me is like much easier to understand.”* Arya’s comment is consistent with the research by Anderson and Nagy (1992) that shows that using oral discussion and everyday language is more effective than using dictionary definitions for teaching students word meanings. Tom also identified teacher explanations as a useful strategy for vocabulary learning in the classroom, saying that they help him learn

new words *“by explaining what they mean and why you use it, and why you should use it in everyday life”*. He talked about how his electronics and digital technologies teachers *“explain why you need to use that word so it actually makes sense”*. Ashley commented on the importance of note-taking and labelling along with verbal explanations in mathematics to help her learn new words and concepts, saying, *“he goes, this is Pythagoras and we’ll label everything in our book, you know with the different signs and angles and everything. So he always makes us write it down, and always explains to us what, which is which.”*

Both Jeanette and Arya identified their teachers’ use of the online software Quizlet (<https://quizlet.com>) as an effective tool for vocabulary teaching and learning. According to Jeanette, *“you have all these games you have to play on there to help you learn words”*. Jeanette said that her Year 10 science and English teachers, and also her Year 9 literacy teacher, utilised the Quizlet website. Arya also mentioned Kahoot (<https://kahoot.com>) as an *“interactive”* online tool that helped her remember new words. Jeanette and Arya’s discussion of these online tools echo the study by Townsend et al. (2018) where science students were effectively engaged in vocabulary learning through the use of multi-modal resources, including the website Quizlet. In contrast, Ashley identified her science teachers’ use of *“gap-fills, wordfinds, um kinda research sheets”*, on paper, to help her learn new science vocabulary. When I asked Olivia what she thought her teachers could do to help her learn long words in science, she replied, *“I don’t like sitting down for like a long time. So like moving around.”* From this I inferred that she would like more opportunities to use new vocabulary in practical situations, such as science experiments.

Ashley talked about the importance of revising new words in order to retain them. When I asked her what teachers can do to help her learn new words, she replied, *“keep on using examples of like when to use it and what it means, and just kinda going over it”*. She mentioned her science teachers who were *“kinda always going over the words and always bringing them up, so they kinda just get stuck in your head”*. Tom also discussed the importance of repetition to reinforce vocabulary acquisition, saying, *“if I’m reading it all the time, and if it’s um a word I would not normally use I would start using it because I now know what it means, and it just becomes simple and natural to use it.”* These students’ comments echo the literature of Hempenstall and Buckingham (2016) and Stuart and

Stainthorp (2016) that shows that the most effective way to enhance vocabulary learning and reading comprehension is for teachers to explicitly and systematically provide students with multiple opportunities to encounter and use new words in the classroom.

Arya gave examples of her teachers using morphological instruction to help her understand new words. She said, *“My mathematics teacher when we were learning Trigonometry, broke down the entire word into various syllables for the entire class as none of us knew the exact definition. He broke it into ‘Tri Gon O Metry’ then explained the different parts and their meaning ‘3 Angle Measure’.”* Arya also gave the example of her English teacher breaking down the word ‘onomatopoeia’ into parts so she could understand the word better. Many studies have highlighted the importance of morphological instruction for the development of adolescent students’ word consciousness (Anderson & Nagy, 1992; Bowers & Kirby, 2009; Goodwin & Ahn, 2013; Luxton et al., 2017).

Arya, Jeanette and Tom all talked about the ways in which their teachers support their use of new vocabulary in their writing. Jeanette commented on how her mathematics teacher encouraged her to use the word ‘tend’ in her writing, saying, *“my teacher recently said like, “you want to use the word ‘tend’ in this like answer for the maths question”, so I was like OK so like ‘this tends to’...”*. Arya reported her teachers encouraging her to use specific terminology in her writing, saying, *“for example like in English in an essay they would probably say, like, ‘In conclusion’ to conclude my writing, something like that. They would say I prefer that, if you do that, that’s better for your writing.”*

When asked if there was anything else that she thought might be useful for supporting her using new words in her writing, Arya responded, *“Um yeah probably um if they give a vocab sheet of like when we could use those words effectively in our writing ‘cos most of the times even if I want to use a word, I don’t – like a big heavy meaning for it – I don’t probably know what’s the appropriate time of using it.”* Tom commented that sometimes if he used simple words in a sentence to explain something, then *“the teacher would often say, this is um a bit too simple, add some words in there, and I would go and find some words, or think of some words, in like a thesaurus or dictionary”*, implying that sometimes identifying and using more sophisticated vocabulary was something that he was expected to do independently. It

appears that students such as Tom and Arya would appreciate further support when they are required to use new words in their writing.

5.2 The differences across the subjects

5.2.1 Vocabulary

The students' discussion of English and science as being the subjects that use the most long words and difficult new vocabulary corroborate the findings of the research by Coxhead and White (2012) in which English, followed by science, was identified as the subject with the greatest number of running words in secondary school texts; with 'running words' being the total number of word forms in a text, as opposed to the total number of individual words in a text (Coxhead, 2000).

. Science emerged as the subject with some of the hardest texts for the students to read because of new vocabulary. Olivia said, *"like the big scientific words, I don't know what they mean,"* reflecting the research by Shanahan and Shanahan (2008) around disciplinary literacy that found a high number of content words embedded in science texts, in relation to the total number of words. Arya said that science texts *"take more effort to like actually understand and memorise things"*. Arya's comment reflects the research by Yildirim et al. (2011) that shows that there is an even stronger correlation between vocabulary knowledge and reading comprehension for expository texts than there is for narrative texts.

Some of the students commented on how new vocabulary often correlates with new concepts and ideas. Tom pointed out that in science, *"every word's something new, and uh, words you normally, words you don't use or have never heard of"*. Jeanette also commented on this, saying, *"my mum described it as learning a new language in a sense, like, different names, and learning things like the periodic table, and chemical formulas, and it's like, a lot of information."* As Ashley put it, *"you're introduced into a lot"* in science. This is reflective of the research literature by Hemenstall and Buckingham (2016), Scott (2005) and Shanahan and Shanahan (2008) that has identified an increase in the use of abstract and academic

words that are labels for important concepts critical to students' subject knowledge, particularly in the subject of science.

The unique challenges of the vocabulary of mathematics were also touched on by the students. When I asked Poppy if she understood the writing in mathematics questions she answered, *"not all the time"*. Tom commented on the word problems in mathematics where *"you have to piece them, piece it together to make it look like numbers that make sense for maths."* As Tom pointed out, *"Maths, certain words you would probably use, you would only use it if you were explaining a equation."* Similarly, Arya and Jeanette agreed that most of the new vocabulary they learnt in science would only ever be used in science. Thus the students' main opportunities to read, learn and use these technical, subject-specific words are in their subject classes, mirroring the research by Shanahan and Shanahan (2008) on disciplinary literacy, and their findings that the literacy demands on students are particular for each of their subjects.

While the students acknowledged that science, English and mathematics were the subjects with the most difficult new vocabulary to learn, it seems that other subjects also present students with challenges. Ashley, towards the end of the interview and unprompted by me, pointed out that *"Drama actually has a lot of new words as well. We're doing commedia at the moment and lazzi and all that"*. When I asked her if she found new vocabulary in drama hard to learn she said, *"I think it comes quite easily when you're physically doing it, you know, cos she'll say, do-, show me a lazzi thing, and you know we'll be able to do that."* Her teacher's repeated use of the new words and the requirement that students apply them in a practical way clearly helps Ashley to retain and use new vocabulary.

5.2.2. Reading

Much of the research relating to the increased sophistication of texts at secondary school, such as that of Scott (2005), Westwood (2008) and Yildirim et al. (2011), has tended to focus on the difficulties of comprehending expository text used in curriculum areas such as science and social science. However, what Olivia and Poppy said in the interviews appears to contradict these findings. Both Olivia and Poppy identified the reading of extended narrative

texts in English as being the major point of difference between reading at primary and secondary school. Olivia said that *“Primary school is a lot more like childish...you read little books, but now you read big chapter books”*. Poppy commented, *“in primary it’s more like, I feel like they help you more....at high school they just tell you to read a book,”* identifying both the increased expectations and also the lack of support with reading at secondary school.

English was the only subject where students reported having to read extended texts, such as novels, or extended non-fiction texts, in amongst a variety of shorter text types, such as short stories, newspaper articles, and poems. Ashley said that in social studies she would read, *“pretty much only articles”*. Arya and Ashley both reported reading *“online articles”* in science. Jeanette said in science *“we don’t really read too much, it’s mainly just answering questions.”* Tom said, *“Science, you would have to do reading, but it would normally be your method, instructions, your aim...on the projector, or you’d read it off your device...a worksheet”*.

The interviews revealed that Olivia, Poppy and Ashley have low self-efficacy when it comes to reading extended texts. These three students talked about the challenge of reading novels in English. Olivia stated, *“I don’t like reading, so...I find the novels hard to get through,”* and similarly Ashley said that she’s *“not so good on books”*. She told me, *“we do silent reading in class, and I had a book about that thick out”*; she indicated the thickness of an average-sized fictional text with her right hand. Then she went on to explain, *“and um I was reading it, and it took me like so long to read it, I didn’t even finish it.”* Poppy also commented on the novel study in English, saying, *“I didn’t even read our novel this year....she gave it to us to read for homework. I read like 17 pages but then I gave up. I just like, don’t read.”*

The issue for these students appears to be the length of the texts that they are required to read. While Olivia, Poppy and Ashley said that they do not read novels for pleasure, they all said that they will read shorter texts on occasions at home. When I asked Ashley if she reads online at home, she responded, *“Oh yeah, on social media and that, yeah, I’ll sometimes read like articles and things like that, but no, not like actual physical chapter books.”* Poppy

said she reads comments and messages on social media, and she sometimes reads the news on stuff.co.nz but *“that’s probably about it”*. She did, however, also say that she was interested in reading texts about sport. Olivia said she only ever reads at home, *“if it’s...an article on like Instagram or something”*, meaning sometimes she follows a link on Instagram to an article which she might read if it interests her. The daunting nature of extended texts is a significant barrier for these students, and this is critical issue for them in the subject of English.

5.2.3 Writing

The students named a wide variety of texts that they were required to write across all of their subjects, including essays, paragraphs, short answers, newspaper articles, experiments and methods, explanations, reports, short stories, recipes, and speeches. Tom identified the increase in output expected once they entered secondary school, saying *“at primary school you write three sentences and that’s Excellence level, and then Excellence level here you have to write almost a novel.”* Ashley said that writing was *“definitely more structured”* at secondary school, with more sophisticated vocabulary use, including *“languages features”*, saying, *“you’re more describing, go into more depth at high school”*. The students’ comments reflect the increase in the complexity of texts secondary students are required to produce.

A large proportion of the students’ writing of longer, more complex texts is done in the subject of English. Jeanette commented that since she’s been at Riverdale High School, she’s learnt a lot about writing, saying, *“My English teacher last year she taught us a lot about like writing skills”*. When I asked her what sort of skills she responded, *“some of it was kind of stuff I should’ve known, I kinda was just like, oh yeah OK that makes sense, I’ve seen that writing when reading before”*, meaning that she recognised the skills and techniques that her English teacher explicitly taught in texts she had read before. Jeanette also gave the example of how she struggled with her use of commas and apostrophes at primary school, but *“then they became really important in like my spelling and writing, so then I started applying them a lot more”* at secondary school. When I asked the students which teachers

gave them feedback specifically on their writing, most of them said that they would only get feedback their writing from their English teachers.

Some of the subjects named by the students that involved varying amounts of writing at Year 10 were social studies, digital technologies, food technology, electronics, and health. Ashley said that in her current topic in food technology *“there’s so much writing...feedback...research...your ingredients, what you’re changing, why you’re changing it; really descriptive pieces”*. Poppy described the reading and writing skills required of her in health, when she said, *“say we’re doing something about drugs we’d have to like find out information about that and then like write it down and then like describe what it does and everything”*. Ashley reported writing paragraphs in social studies, but Olivia commented that the only writing they did in social studies was *“just answering the questions”*, implying that she is only required to write phrases or sentences, as opposed to whole paragraphs, in this subject.

When I questioned the students about the types of writing they did in science, some of them responded that they did a significant amount of copying off the board or from a PowerPoint presentation. Poppy said, *“we have to like just copy down stuff off the board.”* When I asked her if they had to write explanations too, she replied, *“Yeah but like it’s not really hard because like they tell you what to write and then you just do that.”* Jeanette said, *“Um, usually they write things out as well like on the board, so you can just copy it down, and then re-read it later.”* It seemed to me that some of the students considered copying to be a form of writing, albeit an ‘easy’ one. This is unsurprising, since copying notes from the board draws on students’ transcription skills, but not higher-level text generation skills, according to the Simple View of Writing (Berninger & Amtmann, 2003), and thus is not as cognitively taxing for students as composing their own summaries or explanations.

According to the students, subjects that involve very little writing at Year 10 are physical education, drama, business, economics and accounting (BEA), and mathematics. As Arya pointed out, however, mathematics and BEA involve *“numeracy-based writing”*. Many of the subjects where students wrote less or wrote very little in Year 10 will have a more significant component of writing in Year 11 because of NCEA Level 1 assessment, something

that at least one student was aware of. Ashley identified drama as a subject that would require significantly more writing in Year 11 than in Year 10, with *“really long paragraphs of describing....who your character is, what the main thing is, and describing a scene.”*

English was the only Year 10 subject in which the students reported that they wrote regularly, and wrote longer, more challenging text-types such as essays, speech scripts, newspaper articles and short stories. Westwood (2008) noted that students' competence in writing in a variety of different genres and for different purposes relies heavily on them having a well-developed vocabulary. However, Tom and Poppy both spoke about the difficulties they face with writing essays, and yet there is a significant disparity of 2,800 word families between these two students' vocabulary sizes. This suggests that there are factors other than their vocabularies that are affecting their confidence and self-efficacy in essay-writing.

Poppy said she appreciated creative writing because, *“I don't have to focus on one thing and I can just write, like, free, you know.”* In contrast, however, she said that essays in English were the most challenging type of writing because, *“I always turn it into a plot”*, implying that she finds structuring her essays difficult. Initially it seemed as if Poppy struggles with aspects of text generation, such as expository structure, according to the Simple View of Writing (Berninger & Amtmann, 2003). However, Poppy talked about how her English teacher used *“sheets that have like TACO or something on it”*, to help her structure her writing, referring to the teacher giving them photocopied handouts with acronyms on them that are used to encourage clear paragraph structure. On further reflection, I wondered if her difficulties with essay writing might also stem from difficulties with what are referred to by the Simple View of Writing as executive functions, specifically the executive function of planning. Similarly, Tom commented that he *“didn't struggle getting my information down, but I struggled writing it into a paragraph, having a structure for the paragraph and I would write something in three sentences, where, and get-, all the information would be in those sentences instead of um explaining what they are, I'd just say what they do, or something.”* He agreed here that it is both structuring his writing and expanding on his explanations that he finds difficult in essays.

Unlike Poppy, Tom also finds creative writing in English difficult. He commented on creative writing tasks, saying *“If I’m given something to write about I normally can do it pretty well, but if they say make your own story, I would focus on making, building the story up in my head, and wouldn’t focus on getting it down on the piece of paper.”* It seems that in English, Tom struggles with both developing his ideas and structuring his ideas in his writing, across multiple text types. According to the Simple View of Writing (Berninger & Amtmann, 2003), Tom struggles with aspects of text generation, possibly relating to executive functions, such as planning and organising. However, other comments Tom made during the interview suggest that he also has some difficulty with transcription skills, such as writing speed and spelling. It is possible that this may compound the difficulties he has with text generation. If my interpretations here are accurate, they also help to explain his relatively low self-efficacy in writing in English, where spelling is considered important and is included in assessment rubrics, and thus why he favours keyboarding to writing by hand. This finding reflects research around the impact of students’ spelling skills on the quality of their writing, regardless of their vocabulary knowledge (Dobbs & Kearns, 2016; Mosely, 2016).

Poppy’s and Tom’s discussions of their struggles with writing essays in English reflect the research of Bruning et al. (2013), Hidi et al. (2002) and Pajares, Johnson and Usher (2007) showing that students’ self-efficacy beliefs about their writing tend to differ across different types of writing. Tom talked about writing in subjects other than English where, *“it’s far more simple, you just have to explain what something does and it doesn’t matter if you can spell”*. Arya said that the *“writing in electronics and stuff, where you have to do reports”* is much easier than the writing she has to do in English. Tom and Arya’s comments are consistent with the conclusion drawn by Berninger et al. (2002) that persuasive essay writing provides more of a cognitive challenge for students than informational writing. The interviews revealed that whilst there are some common difficulties with writing, for example essay writing for Tom and Poppy, there appear to be different sources of difficulties for them; that is, they struggle with different aspects of essay writing.

5.3 The pressure of assessments

Many of the participants mentioned the stress that comes with sitting assessments at some point during their interviews. Jeanette talked about feeling *“a bit stressed”* before a final science test the previous term. Ashley said, *“I stress out big times when it comes to assessments and that.”* Ashley also discussed her anxieties around the upcoming Year 10 English exam in which she would have to write two essays and complete a reading comprehension section, all in a two-hour time-frame.

Most of the students said that they found assessments with lots of reading more challenging than assessments with lots of writing. Ashley said that it's *“reading I mainly struggle with”* in assessments. Jeanette said that an assessment that requires lots of reading was more difficult than one with lots of writing *“because you have to, like, an-, there's gonna be a right answer to it, but when you're writing something there's multiple answers that you could get right, but like reading there's always one particular thing that you have to kind of like, attention, put your attention on”*. Poppy and Olivia both agreed that assessments with lots of reading were more challenging than assessments with lots of writing. Arya commented on reading during assessments, saying, *“it's more stressful um when you're reading it...it's much harder for you to like um one hundred percent understand what the writer is trying to say. So especially in English it's um harder for me to do a reading comprehension than just writing.”*

Tom was very conscious of the way in which students would be banded or streamed in Year 11 according to their written assessment results in Year 10. This seemed to cause him some anxiety. Tom talked about his experience of writing in the Year 9 examinations the previous year, saying that he *“struggled with getting everything down in time”*. He also added that, *“it feels like, if I get this wrong, it's everything I'm gonna get wrong, and I'm gonna get put into a low class”*. He said that his science and mathematics teachers in particular talked about getting into 'high classes' and that *“high classes normally mean you get better opportunities and a better career overall”*. He also discussed how he wanted more support from the teachers when preparing for exams, saying, *“Normally some teachers would explain what it looks like, what's gonna be in it, and some teachers wouldn't explain what's in it at all, and you just walk in with a blank mind not knowing what you're doing, and normally you'd pick up the paper and go 'oh I know this, but what is this?'”*

The participants in this study spoke about the pressures of summative, as opposed to formative, assessment. The reading comprehension tests that Arya refers to, and the end-of-topic science tests discussed by Ashley and Jeanette, are used to generate grades for reports. The end-of-year examinations results are also included in reports, and as noted by Tom, are used for class placement the following year in students' compulsory subjects. None of the participants had sat any Level 1 NCEA assessments at the time of the interviews, yet the language used by them around the Year 10 common assessments is NCEA terminology; Ashley and Olivia talked about getting Excellence and Merit, respectively, in their English assessments. Tom refers to his work being at 'Achieved Level' and the usefulness of criteria to bring it up to 'Excellence Level'. What the students said points to the anxiety associated with literacy in relation to assessment, and the pressure of regular assessment regimes on students, such as NCEA and the common summative assessments used with junior students at Riverdale High School.

5.4 The importance of teacher-student relationships

The importance of positive teacher-student relationships for students' literacy learning was a theme that stood out strongly for one student. Olivia spoke explicitly about the importance of the relationships she had with her teachers and the impact these relationships have on her language learning. When I prompted her at the start of the interview to talk about secondary school in comparison with primary school, she mentioned a particularly strong relationship she had with her Year 8 intermediate teacher, saying, *"our whole class was like a little family, so it was like quite sad to leave them all"*. As the interview progressed the importance of positive relationships with her teachers became a recurrent theme for Olivia.

When I asked Olivia why she finds science at secondary school difficult she said, *"I just don't like my teachers, so you find it difficult to learn when you don't like your teachers."* In contrast, Olivia said that sometimes in English there are words that she doesn't understand, but that she *"can just ask the teacher because, like, I like our English teacher"*. From this I inferred that Olivia feels comfortable enough to approach her English teacher for help; that

she feels supported by her English teacher, and not ashamed to seek help from her. When I questioned her as to whether she asks her science teachers about vocabulary she doesn't understand, she replied, *"Oh, it depends... 'cos I don't really like my science teachers"*, and then added, *"Or I'll just google them"*, meaning she uses the internet to look up the words, instead of asking the teachers about them. Olivia's discussion of her relationships with her science teachers relate strongly to the findings by Habib and Naz (2015) around the potentially damaging nature of negative teacher-student relationships for dyslexic students. Olivia clearly identified a *"nice teacher"* that helps her individually as the most important factor for building her confidence in her writing, implying that she appreciates teachers who are approachable and supportive. Olivia's comment resonates with the study by Riddick (2010) with adolescent dyslexic students, where the author found that the best teachers were seen by students as positive, encouraging, understanding and helpful.

Other students also alluded to the importance of teacher-student relationships for their learning. I inferred from Arya's comment about how she would be more likely to ask a teacher than consult a dictionary, that she generally feels confident and comfortable enough to approach her teachers for help. Tom commented that he enjoys digital technologies the most of all of his subjects because *"it's always a fun classroom and the teacher's really relaxed, and if you need help he'll show you what to do, and then you just get on with it."* Jeanette said she likes science, *"but that's because my science teacher is my form teacher"*, meaning the positive relationship she has with her form teacher has a spill-over effect in terms of increasing her enjoyment of science as a subject. This suggests that the role of the form teacher is an important one in the school; teachers are not simply experts in their discipline or subject, but providers of support for students through the pastoral care system.

In contrast with Jeanette and Tom, Poppy implied that she has a negative relationship with her mathematics teacher, when she said, *"I hate maths...cos, like, the teacher doesn't help me"*. It is impossible to say, from the data, whether or not Poppy's mathematics teacher does or does not provide her with support in mathematics. However, the students' feelings and their assessment of the nature of their relationship with the teacher, such as that of Poppy's with her mathematics teacher, is important for the students, as it is seen by them

to impact on their literacy development and learning in their subjects. The students' comments around the importance of positive teacher-student relationships for their literacy learning connect more broadly with the research that highlights the importance of relationships to learning more generally (Bishop & Berryman, 2009; Bishop, Berryman, Cavanagh & Teddy, 2009; Roorda et al., 2011).

5.5 Having dyslexia

Of the six students interviewed, two identify as having dyslexia; both spoke about having been diagnosed with dyslexia when they were at primary school. When discussing the challenges of understanding long words, Jeanette said: *"Um, I have dyslexia so like I get-, I'm a bit slow with some things, so yeah that's probably where I struggle the most with."* Jeanette mentioned twice that she finds spelling difficult. Jeanette enjoys reading at home, and talked about the genres she enjoys, saying, *"I like books. I like reading fictional stories mainly, or like, yeah, not a fan for the sappy teen kind of romance ones. I like sci-fi and all that, adventure novels."* Jeanette was diagnosed with dyslexia at around 7 or 8 years old. Despite the challenges she faces with having dyslexia, it was clear from the interview that she derives enjoyment from reading and writing, and that she is coping well with the learning demands of secondary school.

Olivia revealed that she has dyslexia when discussing the challenges she faces in learning French; she said that she finds it hard to pick up another language when she is already struggling with her literacy learning in English. According to what she told me in the interview, Olivia was probably 10-11 years old when she was diagnosed with dyslexia. Olivia stated that she does not read at home, saying, *"I don't like reading."* Olivia's experiences of literacy learning appear to be in stark contrast with Jeanette's experiences. This bears out the findings of Riddick (2010) that dyslexic individuals differ in the precise nature of the problems they have, and have different cognitive profiles and different strengths and weakness in the way that they learn, despite the commonalities that justify the label of 'dyslexia'.

Olivia discussed in detail some of the challenges she faces with dyslexia. She said, *“...I used to get my b’s and d’s mixed up, which I still do”*, and that she finds spelling difficult. She commented repeatedly that she hates reading out loud in front of people, saying, *“Like with speeches, I refuse to read them out loud. I hate reading in front of people”*. For Olivia, it appears that delivering a speech is the same as reading aloud; this mirrors research that has shown that reading aloud is considered by some dyslexic students to be a type of public performance, akin to delivering a speech (Riddick, 2010). Later in the interview she also said, *“I can read in my head, and I can, like, knowledge like what’s going on in the story if I read it in my head, but I just hate, I like muck everything up if I read it out loud.”* Reflective of the research with dyslexic students by Habib and Naz (2015), it is likely that Olivia experiences feelings and symptoms of anxiety around reading in front of people.

When asked which of the texts she has to read in school she likes the most, Olivia replied, *“short stories if the teacher’s reading it out loud. Probably paragraphs cos they’re not long.”* I asked Olivia how she found assessments at secondary school, and she replied that it depended on the subject, saying Health assessments were OK, but in science, *“I get confused, so I don’t really do them”*. Olivia’s difficulties with reading are clearly impacting on her achievement at secondary school. It is likely that Olivia’s reluctance to read stems from her dyslexia and the difficulties she faces in decoding the words on the page, according to the Simple View of Reading (Gough & Tunmer, 1986). The Component Model of Reading (Aaron et al., 2008), further aides our understanding of the difficulties Olivia faces by recognising that her literacy learning is also affected by environmental and psychological factors, such as the relationships she has with her teachers. The difficulties Olivia has with reading and literacy learning are therefore most likely compounded in some subjects by negative relationships with particular teachers.

It seemed to me that Olivia felt some shame around her struggles with reading and her dyslexia. It is clear from what she said that she is anxious about and embarrassed of making mistakes when she is reading in front of people. At one point she said, *“I just sit there in French and act like I know what I’m doing,”* suggesting that one of her strategies to deal with this sense of shame is to avoid revealing when she is struggling. This is also reflected in her comments about using the internet to look up the meanings of new vocabulary in

science instead of asking the teacher, and her refusal to deliver speeches in English. Referring to her dyslexia, Olivia commented that, *“you can’t tell that I have it”*, implying that her dyslexia is something that is unseen and therefore easily hidden. Olivia’s inclination to hide her difficulties with reading reflects research (McLaughlin, Leather & Stronger, 2002) that shows that because dyslexia is a ‘hidden disability’, dyslexic people are often selective about who they disclose this information to; that is, they can choose whether or not to tell someone they are dyslexic, or whether they are having difficulties with various tasks.

Olivia’s and Jeanette’s diagnoses of dyslexia automatically identify them as a students with a reading disability. Riddick (2010) found that for the majority of students, understanding that they have dyslexia helps them make sense of their learning experiences. Indeed, both Jeanette and Olivia seem to have an awareness of how dyslexia affects their reading and writing skills. However, their contrasting levels of self-efficacy, particularly in reading, are significant. Olivia’s anxiety and embarrassment around her reading skills, together with her belief that she is a *“hands on person”*, suggests that she views her literacy skills in a negative light and as a fixed part of her identity. Jeanette, however, seems less constricted than Olivia by her diagnosis of dyslexia, possibly because she has accessed support for her literacy learning, and has experienced success and enjoyment with reading, both at home and in school.

5.6 Formal and informal support for students’ literacy learning

The nature of support that students receive for their learning varied across the students, with many of the students accessing informal support through their families. Most of the students said they could get help from someone at home, if they were struggling with a particular task or subject, and many of them named their mother as the person at home who could help them. Arya commented that her mum is *“really good at these things...especially like English and maths”*. Ashley talked about revising for assessments, saying *“I do that with my mum, like the week, the night before, yeah that’s really good”*. Jeanette also got help for assessments from her mum, citing the following example: *“I think last term I was a bit stressed about the final test. I got like a lot of help from my mum, and*

she's very bad at science, but she went to like work and was like asking questions to her colleagues, and like came back and helped. And the same with maths as well. She's always willing to help me, yeah." Tom talked about support from his Dad, saying, *"...he's good at um mechanical subjects and very good at maths, so I can always ask him to help"*.

Jeanette and Tom also mentioned that their parents encourage them to read at home.

Jeanette talked about how she would go without reading for long periods, *"and then...my mum, she's a big reader, so like she's always encouraged me to and you know she'll give me a book and be like 'just read it' and I read it, and it's good."* Tom said that he didn't tend to read books at home unless was *"told to"* by his mum.

Ashley spoke positively about the after-school tuition she is getting from Kip McGrath twice a week, for mathematics and English. She said that she's *"actually really enjoying it"* and that in her English tutorials *"we're mainly focusing on extending my vocabulary and with my comprehension"*. In comparison, Ashley spoke about her experience of having Year 13 reading tutor, in Year 9, from her school. She said that, *"she didn't really ever turn up. She was always doing her study, so, yeah. But we more so talked about exams and that rather than reading, 'cos she said, do you wanna read that, and I was like, I actually can't. I can't do reading and I'd always feel like really uncomfortable and weird reading out loud because I'm reading to someone else but I don't really understand it myself."* It is clear from what Ashley said that support by an external education centre that she has paid for has been more helpful than the peer-tutoring that the school provided her with. Ashley's experiences with the peer-tutor reflect the research by Rowan (2010), that found that inappropriate literacy support, offered in an adhoc manner, was being delivered in New Zealand secondary schools.

Only one of the students in this study receives any formal, structural support from the school for their literacy learning. As discussed earlier, two of the students I interviewed, Jeanette and Olivia, have dyslexia. Riddick (2010) found that a diagnosis of dyslexia helped students and their families access a whole range of support, including from school. However, in contrast with the findings of Riddick (2010), of the two dyslexic students in this study, only Jeanette has accessed school support as a result of her diagnosis. Jeanette has

Special Assessment Conditions (SACs) for her assessments. This means that she goes *“to the Learning Centre to write my essays and things, and I get extra time with them as well, and I, like, get some help from there.”* She also said, *“I took literacy last year,”* referring to her placement in a half-year literacy course in Year 9 to give her extra support and help. Jeanette said that she’s *“had support from the school definitely”*.

In contrast, Olivia has not received additional support from the school, nor does she get SACs for assessments, despite having a diagnosis of dyslexia. This was not something I managed to explore in depth with Olivia; I was unaware of Olivia’s dyslexia prior to the interview, and it was not until after the interview was complete that I came to the realisation that she receives no structural support from the school. This was confirmed for me by Olivia at a later meeting; when I questioned Olivia about her lack of SACs for at this meeting, and asked her if she thought she SACs might be useful for assessments she responded, *“I don’t want them”*. It may be that she was offered some form of school support for her literacy learning, but chose not to use it; Rowan (2010) found that when dyslexic students experienced negative learning support situations they often refused assistance when it was offered. I also learned later on, that at the time of Olivia’s enrolment at Riverdale High School, her mother informed the school that she is dyslexic, but that the school did not receive any ‘supporting documentation’ as evidence of her diagnosis. Alternatively, this may be why she has not been provided with any extra support from the school’s Learning Centre, however, I am unable to explain conclusively why Olivia does not receive any school support for her literacy learning.

I also asked Poppy if she had done any work with the Learning Centre and she shook her head. When I asked her if she had ever had to sit a test in the Learning Centre, she said, *“Oh I sat a test last year, but it was like sounds and stuff.”* I did not ask any follow up questions at this point, so I am unable to conclude what test it was that Poppy sat. Her explanation of the test including *“sounds”* suggests that Poppy sat a LASS test on phonic decoding or phonological sounds, or a similar test to this, but it is difficult to pinpoint exactly what aspect of her language learning was assessed by the Learning Centre. She was not called back to the Learning Centre after the test, nor was she placed in the half-year literacy course

in Year 9. The two students in this study with the lowest reading levels and the lowest written receptive vocabulary sizes, Olivia and Poppy, are not receiving any extra support for their literacy learning from Riverdale High School, outside of what their subject teachers already provide them. An important finding here is that there are inequities in structured school support received by the participants in this study, and the effects of these inequities are evident in the students' engagement and achievement in the classroom.

5.7 Building students' confidence in reading and writing

As stated in the previous chapter, I aimed to investigate the apparent disconnection between reading self-efficacy and writing self-efficacy in the interviews. Despite only two students indicating lower self-efficacy in reading compared to writing at secondary school in the questionnaire, five out of the six students expressed some anxiety in the interviews around reading at school. Only Tom clearly felt confident in his reading skills, saying that *"my reading over from primary to intermediate has always been good"*. He then went on to explain, *"But I've never been good at writing. And, I, that...makes me feel like my reading is good - always up, this is my reading, this is my writing."* Tom gestured two differing levels with his hands, indicating a high reading level and a low writing level. Tom's assessment of his reading and writing skills aligns with the research, such as that by Bandura (1997) and Butz & Usher (2015), around the domain-sensitivity of self-efficacy development.

When I asked Arya if she was confident in her reading, she responded, *"Most of the times, yeah"*, and later implied that reading during assessments could be stressful. Jeanette and Ashley clearly stated that they found reading in assessments challenging. Ashley talked about the difficulties of comprehending texts multiple times during the interview. She said, *"I'm fine with reading out loud. Like I can read it, it's just sometimes I don't understand it, and like it will come out of my mouth and I'll be like, blah, what did I just say, that didn't really make sense to me."* Ashley can decode the words on the page but struggles to comprehend the meaning of text she has read which, according to the Simple View of Reading (Gough & Tunmer, 1986), is typical of a student who might have a Specific Reading Comprehension Difficulty. Ashley commented that she *"struggle[s] with comprehension and*

vocabulary the most." I assumed at the time that Ashley's recognition of her struggles with vocabulary and reading comprehension came from her past experiences with reading. However, it may be that she sat a diagnostic test for her tutoring with Kip McGrath that identified these areas as specific weaknesses in her reading. I am unable to conclude here as to whether she has been officially assessed or diagnosed in terms of her struggles with vocabulary acquisition, as I did not enquire about this in the interview or at later meetings I had with Ashley.

The students named a range of factors that help build their confidence in reading. Ashley pointed to the importance of repetition and practise, saying, *"pretty much making me do it over and over"* helps build her confidence in reading. However, the genre and content of the texts appears to have an important influence in engaging students too. Jeanette said *"I like good writing...anything that's got a good storyline or plot"* and *"fictional stories with friendship and things. I find them pretty motivating"*. She also pointed out that English is *"one of the subjects I achieve highest in... 'cos I like it"*. Ashley spoke enthusiastically about reading in social studies, saying that she loves *"doing research assignments...like looking through articles and finding facts."* Jeanette's and Ashley's comments suggest that the more interested and engaged students are in what they are reading, the more likely they are to experience success in reading and improve their reading skills. This, in turn, has a positive impact on their reading self-efficacy.

Experiencing success in reading tasks stands out as a powerful factor for improving Ashley's confidence in reading. Ashley described her growing confidence in reading in Year 10, saying, *"Since doing drama, it's boosted my confidence like so much...so yeah when the teacher, you know, says oh Ashley could you read that out loud, or anyone wants to, you know, read it out I'll put my hand up."* She talked about a recent social studies project she had completed on Krakatoa that involved reading lots of websites, and she commented on how she *"didn't struggle"*, meaning she could comprehend what she was reading without difficulty. It appears that Ashley's increased confidence and self-efficacy in reading is a result of mastery experience, that is, successful reading experiences in drama and social studies, reflecting the research around the importance of mastery experiences in raising students' self-efficacy (Bandura, 1997; Butz & Usher, 2015; Schmidt & Shumow, 2012).

Many of the students identified what they thought helped support them and improve their writing at Riverdale High School. Jeanette identified *“practise”*, as being the most important factor in improving her confidence in writing. She discussed how she’d written *“quite a few”* essays over the last few years, and also talked about how *“having a bit of variety”* in the different types of texts she has to write across her subjects is something that also helps. Tom specifically pinpointed, *“writing about something I’m interested in”* and *“templates you can follow”* as helpful for supporting his writing and building his confidence. Tom commented on how he can, *“type faster than I write”* so he prefers writing on a computer. He also said that using a computer that has spellcheck was useful, so he doesn’t have to *“worry about spelling, and grammar”*. Jeanette also said that, *“I like computers ‘cos it can catch my mistakes in spelling and stuff”*. However, four of the students, including Jeanette, said they preferred writing by hand to writing on a computer. When I asked Ashley what helps build her confidence in writing, she said, *“reassurance and kinda guidance, and just explaining it in full depth”*. When I asked Olivia the same question, she replied, *“Miss Green - like she encourages you to like do it, she helps you”*, again pointing to the importance of teacher-student relationships for her learning.

All six participants acknowledged that teacher feedback is useful for improving their writing skills. Arya raised the importance of written teacher feedback for building her confidence in writing, saying, *“those little comments that the teachers write beside like um each thing I write – it’s much easier for me to understand like um what, what’s wrong with like um the way or the things I wrote and like what’s good about them that I could like do again”*. Jeanette, Olivia, Ashley and Poppy all agreed that written feedback was useful, with Poppy echoing Arya’s comments, saying, *“Yeah, ‘cos she like tells us like what we can go back on and work on”*, referring to written feedback she received from her English teacher. Tom, however, said that instead of written comments he prefers it when a teacher would, *“tick what I’ve done... like when like you’ve met a criteria, they will tick a criteria.”* He explained that this way he could see why his work was at Achieved level, and what he could do to bring it up to Excellence level.

Mastery experience was an important factor for improving the students' confidence in writing, reflecting the research around the importance of mastery experiences for improving writing self-efficacy (Bandura, 1997; Pajares, Johnson and Usher, 2007). Arya and Jeanette both talked about their enjoyment of essay writing, with Arya commenting, *"I really like writing essays"*, and Jeanette saying, *"I like essays"*. Olivia experienced a sense of achievement with regard to essay-writing; she told me that she got a Merit on one of her essays in English, and that her teacher, *"thought my essay was quite good, so I'm quite proud, proud of that"*. It seems that Olivia's mastery experience with her essay has had a positive influence on her self-efficacy in essay writing, in line with the findings of Pajares, Johnson and Usher (2007). It also seems that verbal and social persuasion has had an influence here, as the feedback she received about her essay from her teacher had a positive effect on her confidence, reflecting previous research around the importance of verbal and social persuasion for raising self-efficacy (Pajares, Johnson and Usher, 2007; Schmidt & Shumow, 2012). Ashley also expressed liking writing in English, particularly *"when we did speeches, I really enjoyed that,"* and she told me that she got an Excellence for her speech. When I asked Ashley if she felt confident in her writing, she replied, *"Yes, but I just need lots of reassurance."* Mastery experience and verbal and social persuasion appear to be important sources of self-efficacy in writing for Ashley too.

5.8 Summary

The students' broad experiences of vocabulary learning, reading and writing at secondary school illustrate the wide range of variables influencing students' vocabulary acquisition, reading and writing skills, and consequently their self-efficacy in reading and writing. Positive teacher-student relationships, and the use of a variety of evidence-based vocabulary strategies, emerged as important factors that contribute to students' language learning. The significance of mastery experiences, and to a lesser extent, verbal and social persuasion, in improving students' confidence and self-efficacy in both reading and writing is evident in what the students said, and the implications of this will be explored further in Chapter 6. It seems that there is inadequate provision of support by the school for the participants who struggle the most with reading. In addition to this, some students in this

study would benefit from further support with various aspects of their writing. The inadequacies and inequities in structured school support for the participants in this study will be examined in further detail in Chapter 6.

Chapter 6 – Discussion of findings, conclusions and implications

This chapter draws conclusions from the key findings of this study, and discusses them in relation to research literature. The chapter is organised into sections that relate to the two research sub-questions, the key findings of this study, and aspects of the research process itself. Implications for teacher practice and for school leadership are discussed at the end of each section. The overarching research question is then revisited in the summary.

To attempt to answer the overarching research question in this study, two research sub-questions were formulated. The first sub-question asked, “What are the students’ experiences of vocabulary learning and development at secondary school?”, and the second sub-question asked, “How do the students perceive and understand their self-efficacy in reading and writing?” While this small-scale, qualitative, practitioner research cannot be generalised to a whole population, its findings and conclusions raise implications for teachers and for schools, which are also discussed. The discussion in this chapter focuses on vocabulary learning and self-efficacy in reading and writing, the key research foci. It also goes beyond this to discuss the findings that emerged from the research process.

6.1 Vocabulary learning and development

This section discusses the key findings and conclusions in relation to the students’ experiences of vocabulary learning and development at school, and the implications of these conclusions for teacher practice and for schools.

6.1.1 Key findings and conclusions

Most of the students could clearly articulate a variety of activities used in the classroom to help them learn new vocabulary. Oral discussion of new terminology amongst teachers and students was reported by many of the students in this study, as was the provision of multiple opportunities to encounter new words in the classroom. Interactive online tools, such as quizlet.com, seemed to be particularly appreciated by the students who had the opportunity to use them. Research shows that these are all important evidence-based

instructional approaches for effective teaching of new vocabulary (Hempenstall & Buckingham, 2016; Luxton et al., 2017; Spencer, Clegg, Lowe and Stackhouse, 2016; Stuart & Stainthorp, 2016; Townsend, et al., 2018).

Some of the students made suggestions around what would further aid their vocabulary learning and development, such as more practical activities and further use and repetition of new words in the classroom, as well as further support when using new vocabulary in their writing across their subjects. Students' discussions of the challenges of learning new science vocabulary strongly suggest that many of them could use further support with science vocabulary learning.

Despite the challenges presented by long words across all subjects, only Arya gave examples of their teachers discussing word structure and etymology in the classroom. Research shows that morphological instruction, including the discussion of word structure and etymology, is an effective method for adolescent vocabulary learning (Bowers and Kirby, 2009; Goodwin & Ahn, 2013, Hempenstall & Buckingham, 2016; Luxton et al., 2017; Murphy & Murphy, 2018; Stuart & Stainthorp, 2016), yet only one student in this study reported their teachers using this approach to vocabulary teaching. It may be that the teachers of the other five students have used morphological instruction in their classrooms, but that only the one student in this study could recall it being used. Another possibility is that for a number of reasons morphological instruction is under-utilised in the secondary school classroom, perhaps because teachers are unaware of its effectiveness as a tool for vocabulary learning, or because teachers struggle to explicitly discuss word structure, morphemes and etymology with students. Previous New Zealand research around secondary school teachers' understanding of morphology suggests that the latter is a strong possibility (Craig, 2014).

Additional barriers to vocabulary learning and development were identified by some students in this study. Jeanette and Olivia have dyslexia, and negative teacher-student relationships featured as a significant barrier for their vocabulary learning, with Olivia admitting that she would not ask her teachers about word meanings if she did not have positive relationships with them. This finding aligns with studies showing that students with

dyslexia and other learning disabilities benefit more when they have positive teacher-student relationships (Habib & Naz, 2015; Riddick, 2010; Roorda et al., 2011). What this study reveals about teacher-student relationships and literacy learning fits with research that highlights the importance of relationships to learning in general. International and New Zealand-based research on teacher-student relationships has shown that students' engagement, learning and achievement improves when teacher-student relationships are strengthened (Bishop & Berryman, 2009; Bishop, Berryman, Cavanagh & Teddy, 2009; Roorda et al., 2011).

6.1.2 Implications for teacher practice

Given the students' identification of long words as being particularly challenging to read and learn, and the subject-specific nature of the vocabulary they encounter at secondary school, students might benefit from further morphological instruction across all their subject classes. Students' discussion of the challenges of learning new vocabulary suggests they might find more explicit teaching of new vocabulary useful in helping them to learn and retain this vocabulary. Science vocabulary was identified as particularly challenging, and therefore needs to be an area of focus for science teachers. Previous research has shown approaches which include multi-modal activities, digital activities and practical science experiments to be useful for science vocabulary learning (Shore et al., 2013; Townsend et al., 2018). With such approaches students encounter words in oral and written text multiple times, and have the opportunity to use words in more practical situations. Further use of evidence-based teaching of science vocabulary would enhance their retention of new science vocabulary, reduce their science anxiety and improve their self-efficacy both in reading and writing texts in science, thus contributing to their science learning in general, as found in the study by Ardasheva and Tretter (2017).

Students' comments around needing more support when using new vocabulary in their writing suggest that they would benefit from being explicitly presented with the key academic vocabulary they need for their writing to convey sophisticated ideas. This conclusion aligns with the findings of Luxton et al. (2017), that it is important that teachers identify both key academic vocabulary and subject-specific vocabulary used in their learning areas in order to better support students in their vocabulary and literacy learning.

Additionally, one student's suggestion of teachers using "*vocab sheets*" to help them use new words in their writing demonstrates that students might benefit from the use of Vocabulary Logs or Word Banks, two research-based vocabulary learning strategies recommended by Beck et al. (2008). These strategies would give students quick and easy access to key subject-specific and general academic vocabulary, with clear explanations of each word's meaning and an example context sentence for each word.

6.1.3 Implications for schools

This study confirms the importance of establishing and developing positive teacher-student relationships in order to ensure students are engaged in their learning. This is even more critical when the workload of a single class is split and shared by two teachers, especially a class that includes students who struggle with literacy learning. While there is evidence that collaborative teaching and team-teaching can have a positive impact on both students' learning and teacher-students relationships (Gladman, 2014; Sinnema, Sewell & Milligan, 2011; Wallace, 2007), there is little evidence that splitting classes between two teachers has the same positive effects. Riverdale High School students are taught by their compulsory subject teachers for seven hours over a fortnight. When teachers share a class in this way, contact time is reduced to three and a half hours a fortnight. Based on my experiences as a classroom teacher, this makes establishing and maintaining positive teacher-student relationships with students more challenging, due to reduced contact time. Schools therefore should give careful consideration to the classes and the students within them that are required to share teachers. It would be preferable that teachers' allocations do not hinder the teaching and learning of students.

It would be useful for the school to increase teachers' awareness of the importance of positive teacher-students relationships for students who are academically at risk, including students with learning disabilities. Teachers might benefit from professional development in specific strategies to support the literacy learning of students with learning disabilities, such as dyslexia, in their specialised subject areas. Teachers might also benefit from professional development concerning the value and effectiveness of morphological instruction in the classroom for all students.

6.2 Self-efficacy in reading

This section discusses the key findings and conclusions in relation to the students' self-efficacy in reading, and the implications of these conclusions for teacher practice.

6.2.1 Key findings and conclusions

The students in this study who struggle more with reading comprehension have lower reading self-efficacy than those with stronger reading comprehension skills; those with average or above-average reading comprehension levels tend to read more and report higher confidence in their abilities to read, especially with regard to longer texts. This finding is similar to the conclusions drawn by Unrau et al. (2018) that there is a positive relationship between successful reading and reading self-efficacy, and is exemplified by Ashley's description of her recent successful experiences and growing confidence and achievement in reading. It appears that Ashley's increased reading self-efficacy is a result of mastery experiences in particular subjects, reflecting the research by Butz and Usher (2015) and Unrau et al. (2008) that identified the importance of mastery experiences in raising adolescents' reading self-efficacy.

This study found that the students who struggle significantly with reading comprehension require more support during the reading of extended texts in the secondary school classroom. Reading a novel in English was an intimidating task for three of the students in this study, who had not yet managed to read a novel in its entirety at secondary school. Consequently, they had low self-efficacy when it came to reading extended texts. Further support for them during the reading of extended texts, such as novels, would not only improve their comprehension of the texts studied, but would also most likely have a positive impact on their self-efficacy in reading.

This study has also confirmed that the more interested and engaged students are in what they are reading, the more likely they are to persevere with reading. Interest was thus an

important factor in increasing students' reading self-efficacy in this study, reflecting the findings of Butz and Usher (2015) that students gain confidence when they feel personally invested in what they are reading.

The fear many dyslexic children have of reading aloud is well-documented by researchers (Habib & Naz, 2015; Riddick, 2010), and it appears that some students, such as Olivia, equate delivering speeches with reading aloud. Both reading text in front of the class and delivering speeches are therefore significant hurdles for these students. Olivia's reported experiences suggest that some students require further support and accommodations in the classroom, in order to prevent anxiety around reading aloud in front of the class, and to improve their self-efficacy in delivering speeches.

This study found that when students experience success in reading, they feel more confident in their reading skills; this, in turn, has a positive impact on their reading self-efficacy. However, verbal and social persuasion, that is, the messages and feedback the students receive about their reading from teachers, did not feature as an important source of reading self-efficacy for the students in this study. This differs from the findings of Butz and Usher (2015) where both verbal and social persuasion and mastery experiences were the most frequently reported sources of self-efficacy for reading. A possible explanation for this is that the students in this study were receiving very little teacher feedback around their reading skills. This could be because of an assumption that students are proficient in reading by the end of primary school, and therefore teachers are less inclined to focus on the skills involved in reading, focussing instead on the students' understandings of curriculum content, and their writing (Craig, 2014; Shanahan & Shanahan, 2008). Another potential explanation is that secondary teachers are seen to be subject specialists, and therefore the domains of reading and writing are viewed as the responsibility of the English teacher (Lewis & Wray, 1999; Shanahan & Shanahan, 2008). Because English teachers at Riverdale High School only spend seven hours a fortnight with each of their junior classes they have minimal time in which to provide regular, individualised, specific feedback to students around their reading skills. However, it may also be that many secondary school teachers do not know how to provide students with feedback on their reading; that is, teachers are poorly equipped to cater for the needs of students who struggle with reading (Craig, 2014;

Lewis & Wray, 1999). The explicit and implicit messages that teachers communicate about students' reading competence was not explored or discussed with students during the interviews, and therefore it is difficult to explain why students in this study did not identify various forms of verbal and social persuasion as a source of reading self-efficacy.

6.2.2 Implications for teacher practice

An important implication from the findings of this study around reading self-efficacy is that students who have low reading self-efficacy need more opportunities and support to ensure that they successfully master appropriately challenging reading activities. This is particularly crucial for students when they are required to read longer texts, such as novels. Students' comments around reading novels and their low self-efficacy in this area suggest that there are a number of strategies or activities that could be employed to encourage struggling readers' engagement with extended text. Students who find processing oral text considerably easier than processing written text may benefit from being provided with audiobooks or audiofiles when studying a novel in English (Sacks, 2013; Wolfson, 2008). The audio recording removes the struggle of decoding the words on the page, allowing students to experience and comprehend the narrative. As Sacks (2013) and Wolfson (2008) argue, taking the issue of decoding away allows the student to be on the same level as their peers when it comes to discussing the story, and encourages a deeper and more meaningful understanding of the text.

An option for readers intimidated by extended texts is the use of graphic novels in place of traditional, written text, novels. Graphic novels have proven to be particularly engaging to reluctant readers and those who need additional literacy support (Clabough, 2017; Hughes et al., 2011; Rapp, 2012). The short amount of text in graphic novels, coupled with the images, can be less daunting than a traditional novel, and thus give students more confidence that they can read it in its entirety. Both the format and the content of graphic novels can help motivate students and encourage their engagement with texts.

The students' discussion of texts that engage them in reading suggest that it is important that novels chosen for students to read and study in English are high-interest. Sacks (2013)

advocates choosing texts with 'developmentally meaningful themes', such as identity, or coming-of-age for Year 9-10 students. As well as graphic novels, game-related novels have also been shown to be effective in motivating reluctant readers (Jolley, 2008). Another option, instead of teaching a single novel with the entire class, is to opt for a differentiated novel study, where students choose a text from a selection of extended text, with a range of topics or themes and difficulty levels. This provides teachers with the opportunity to tailor the novel study to the needs of specific groups, and allows students to have some choice in the novel they study, which has shown to increase student engagement (Morgan & Wagner, 2013).

Given the comments from Olivia around delivering speeches, and other research on dyslexic students' fears about reading aloud (Habib & Naz, 2015; Riddick, 2010), teachers need to be sensitive to the anxiety that reading text aloud in front of the class can cause some students with learning disabilities. It may be useful to give them advance warning if reading aloud is an essential classroom activity (Thomson, 2008). A study of tertiary students with dyslexia (Stagg, Eaton & Sjoblom, 2018) found that their experiences of school, in particular the lack of support from teachers, had a negative impact on the development of their academic self-efficacy, and on their psychological wellbeing. Support therefore needs to be put in place for students with learning disabilities who struggle with delivering written speeches. It might, therefore, help individual students to be presented with alternative strategies for planning and delivering speeches. Because speeches are intended to assess students' oral and written communication skills, as opposed to their reading skills, it may be worth emphasising the importance of the oral delivery. Students could be encouraged to use headings and subheadings on their cue-cards that act as prompts for their content delivery, rather than writing a whole speech script onto cue cards. Writing their headings and subheadings in large print or in different colours to make them stand out from one another may also help these students. Teacher-directed practice on the pronunciation of difficult words might also be useful here.

6.3 Self-efficacy in writing

This section discusses the key findings and conclusions in relation to the students' self-efficacy in writing, and the implications of these conclusions for teacher practice and for schools.

6.3.1 Key findings and conclusions

It seems that mastery experience in writing was a particularly strong source of self-efficacy for the students in this study. Verbal and social persuasion, in the form of teacher comments and feedback, also appears to have been an important source of self-efficacy for these students. These findings mirror research by Pajares, Johnson and Usher (2007) that found these were the two most important sources of self-efficacy for adolescent students. All of the students in this study identified feedback on their writing as being useful, and it was particularly crucial for Olivia who identified positive teacher-student relationships as a vital factor for her learning. These conclusions are supported by research showing that feedback can affect self-efficacy in important ways, particularly when it informs students about their capabilities and progress in learning (Schmidt and Shumow, 2012; Schunk, 1995; Zimmerman, Bandura and Martinez-Pons, 1992).

English was the only subject where students reported writing longer texts; therefore, a significant proportion of the writing these students did was in English. English was also the only subject in which students received regular feedback of any kind on their writing. However, Shanahan and Shanahan (2008) argue that as students move through school, reading and writing instruction should become increasingly disciplinary, and students will need to be taught specialised reading and writing skills unique to each of their subjects. In this study, many of the subjects where students wrote less or wrote very little in Year 10 will require them to produce significantly more writing in Year 11, because of NCEA Level 1 assessment. Students will be expected to utilise new vocabulary in written assessments for Level 1 NCEA, and will therefore require practice in using the new vocabulary they have learnt. Students who struggle with reading and writing in Year 10 will need even more support to cope with the transition to Year 11.

Students' stress and anxiety around junior assessment has potential ramifications for their senior years when they will be sitting NCEA assessments in all of their subjects. The pressure of regularly sitting higher-stakes NCEA assessments, and the literacy challenges that come with them, are likely to increase the anxiety and stress for students who have struggled historically with reading and writing or other aspects of literacy learning.

Some of the students in this study reported copying a significant amount of writing off the board, particularly in science classes. I inferred that this was done in order to provide them with notes to read over and use when revising for assessments. Research has shown that copying notes is common practice in many secondary school classrooms, as it serves to reduce the literacy demands on students (Lewis & Wray, 1999); the findings of this study do not dispel this research, 20 years on. Students in this study noted that copying was an easy task for them, compared to writing explanations of their own. However, because copying does not require students to utilise their higher-level text generation skills, it is not an effective task for the development of students' writing skills.

6.3.2 Implications for teacher practice

An important implication for teachers is that multiple approaches are needed to raise students' self-efficacy in writing. Research by Pajares, Johnson and Usher (2007) found that students' mastery experiences were the most influential source of writing self-efficacy, but that verbal and social persuasion also proved instrumental in creating high school students' belief in their writing self-efficacy. Therefore, teachers need to provide students with support that allows them to develop their writing skills and successfully master challenging writing tasks. As well as this, verbal and written feedback is critical in building students' writing self-efficacy.

The prominence of mastery experience as a source of writing self-efficacy for the students in this study also highlights for teachers the need to provide appropriate scaffolding for students that struggle with the text generation aspects of essays writing, such as development of ideas and structure. In particular, it seems that students could use further support and guidance in the form of explicit evidence-based teaching of strategies that

target the high level essay writing skills they struggle with. Previous research has shown that explicit instruction in composition is particularly beneficial for persuasive essay writing (Berninger et al., 2002; Westwood, 2008). It would also be prudent to permit students who struggle with transcription skills, such as writing speed and spelling, to use a computer for writing tasks, such as essay writing. This would allow them to focus more on the other aspects of writing that they struggle with, such as components of text generation, and remove the anxieties involved with writing by hand (Berninger & Amtmann, 2003).

It seems that there is responsibility by faculties and teachers to ensure that junior students are provided with opportunities, and the appropriate support, to practice writing in all of the different disciplines, both at both junior and senior levels. While most of the extended writing students do is in the subject of English, it might nonetheless be useful for students to receive more explicit, regular feedback about their writing in all of their subjects so they have an understanding of the specific writing skills and techniques required for the various text types across their subjects. Additionally, given that Riverdale High School is a Bring Your Own Device (BYOD) school, any important notes for revision can be provided to the students via documents online, thus freeing up class time to focus on written tasks that improve students' writing. However, the use of BYOD was not something that was explored in depth in this study, and therefore there is minimal evidence of the extent to which the students are using online documents across their subjects.

6.3.3 Implications for schools

It might be appropriate here for the school to review the ways in which BYOD is utilised in the classrooms, in order to minimise the use of copying notes and maximise class time for activities that develop students' disciplinary writing skills. Research has shown that the introduction of technology into the classroom does not necessarily transform teaching and learning to higher levels of pedagogical effectiveness, and that teachers and students need technical and pedagogical support to utilise technology to its full potential (Laxman & Sherryn, 2018; Montrieaux, Vanderlinde, Schellens & De Marez, 2015).

Due to the stress and pressures involved in assessment throughout the New Zealand education system, it is advisable that students who struggle with literacy and have anxiety around their achievement are identified well before they begin sitting assessments, so that they can be provided with the appropriate individual support and/or accommodations to ensure success and to avoid assessments having a negative impact on their psychological wellbeing. A concerted focus by the school on improving students' literacy skills in the junior year levels could alleviate some of the anxieties that some students have around the literacy demands of assessments. Students who struggle with transcription skills, but are competent at keyboarding, would be good candidates for sitting written assessments and examinations online. This is currently being introduced in many schools across New Zealand, in a variety of NCEA subjects (NZQA, 2019).

6.4 Teacher use of quantitative data

This section explores the key findings in relation to the reliance on single items of quantitative data to inform teachers, and researchers, of students' literacy learning needs. The implications of this finding for teachers and schools is discussed.

6.4.1 Key findings and conclusions

An important finding in this study is that a single piece of quantitative data can be misleading. This was made evident by the inconsistency between Poppy's e-asTTle reading result, her PAT reading comprehension result, and what she said during the interview. There are two implications of this finding: firstly in relation to the use of such data for research purposes, and secondly to how teachers use data to understand students' strengths and challenges as learners. Specifically, it suggests that a single test cannot be relied upon to fully inform researchers or teachers of students' reading levels and the support they require in class. At Riverdale High School, the December e-asTTle results for Year 9 students are distributed to the students' Year 10 teachers at the beginning of the following year, so that teachers have an indication of the reading levels of their students and know who to provide with additional support in the classroom. For example, an e-asTTle result of 4P from the

previous year would not be particularly alarming for Year 10 teachers, who therefore might assume that a student with a 4P result would be able to comprehend texts with minimal support. However, a result in the Year 10 PAT reading comprehension placing the same student at stanine 3 indicates that the student may need extra support for their learning. The teacher manual for the PAT Reading test explicitly states that “students who score stanine 3 and below for their year level certainly require closer attention” (Darr et al., 2008, p. 20). At Riverdale High School, a student’s PAT Reading test is only known by their English teacher. Furthermore, English teachers are not required to convert the raw PAT score to stanines, or understand what the stanines mean. It appears that the data from the Year 10 PAT reading test are not being utilised to their full potential at Riverdale High School.

6.4.2 Implications for teacher practice

A possible solution here for teachers might be that the teachers of students at Riverdale High School who score stanine 3 or below in the PAT reading test in English are made aware of the students’ extra literacy needs, especially if the e-asTTle result from the previous year does not appear to give their Year 10 teachers any indication of this. However, teachers will also need to triangulate quantitative reading data with their own professional judgements, based on their interactions and observations of their students’ literacy skills and needs. Using a range of data to inform teachers about students’ literacy learning needs is therefore important, since a single test or snapshot cannot be relied upon. Unfortunately, previous New Zealand research (White, 2013) has found that many secondary school teachers struggle to identify literacy learning difficulties amongst their students, both as a result of a lack of knowledge about and inefficient use of literacy data.

6.4.2 Implications for schools

While this conclusion around the use of quantitative data is based on one student’s results in a small-scale study, it still raises the question whether reading assessment data are being used effectively by the school for the purposes of providing support to students who struggle with literacy, or whether such data are simply being used to generate summative

grades for reporting. Because secondary school teachers do not have time to investigate their students' literacy learning experiences and needs one-on-one, the use of quantitative data becomes even more important to ensure that students' needs are understood and being met in the classroom. It might, therefore, be beneficial for schools to regularly review the ways in which they identify and provide support for students who struggle with literacy. This study supports previous research by White (2013) which identified a need for an on-site literacy specialist to develop on-going, in-depth literacy support for teachers, co-ordinated across subjects, to improve teachers' literacy related practices. To my knowledge, Riverdale High School has had a Literacy Leader in place for the most part of the last decade, however, the position has always been held by a subject teacher, often from the English department, who has a significant teaching workload. White (2013) argues that for this role to be effective, the Literacy Leader should have expertise in the field of literacy, be a subject-neutral literacy specialist, and have sufficient allocated time in which to carry out this role. This study further supports these findings.

6.5 Structural support for individual students

Key findings and conclusions in relation to the provision of structural literacy support for individual students in this study are discussed in this section. Implications for schools are also discussed.

6.5.1 Key findings and conclusions

Another important finding in this study was the inequities in the structural support provided by the school to students with particular literacy needs, and that consequently, some students' literacy needs were not being addressed and met. The two students in this study with the lowest reading levels and the lowest written receptive vocabulary sizes were not receiving any extra support for their literacy learning from Riverdale High School, outside of what their subject teachers already provided them. These two students also struggled to recall specific strategies and tasks used in the classroom to support their vocabulary and literacy learning, and seemed less engaged in general with their learning than the other

participants. The effects of these inequities were evident in the students' engagement and achievement in the classroom. This finding echoes the study of Rowan (2010) that found that structured literacy learning support offered in New Zealand schools was very limited in nature.

6.5.2 Implications for schools

It is important to highlight here that effective institutional processes need to be in place that use data to provide and inform support for students with literacy learning needs. Low scores in both the e-asTTle and PAT reading tests should be seen as a 'red flag' indicating that a particular student requires extra help with their literacy learning. Students also sit the CEM entrance test in Year 8, before beginning their education at Riverdale High School, which can also provide some valuable insights into students' strengths and challenges in literacy. Any additional relevant information provided to the school upon a student's enrolment should be utilised, even if it does not come with supporting documentation of a formal diagnosis. Additional in-school testing could be carried out to determine to what extent a student is struggling with regard to specific areas of literacy learning. Again, the need for an on-site literacy specialist to utilise this data effectively and coordinate literacy schemes that meet the needs of all teachers and students would be useful, as previously recommended by White (2013).

Where it is appropriate, individual students should be given accommodations for assessments, even if they do not have the 'supporting documentation' to prove a diagnosis of a learning disability, such as dyslexia. New Zealand schools are able to apply for special assessment conditions on behalf of their students, and it is in both students' and schools' interests that assessments are made as accessible as possible. Because the students who participated in this study will begin sitting NCEA assessments in 2020, it would have been preferable for those with literacy learning needs to be using SACs in Year 10, thus allowing sufficient time to identify which accommodations, such as extra time, use of a reader/writer, use of a computer, and/or separate accommodation, work best for them in future assessments.

6.6 Learning about recruiting adolescent participants for research

The key findings and conclusions around recruiting student-participants for research are discussed in this section, in conjunction with the implications of these conclusions for future research with adolescent students.

6.6.1 Key findings and conclusions

In this study conclusions can be drawn about the efficacy of particular research methods. An important finding from the research process was that it was more effective to approach potential adolescent participants in small groups rather than as individuals. Recruiting participants for this study proved to be more challenging than anticipated. Initially six students were approached as individuals, for participation in this study. Although the meetings with them seemed, from my perspective, to be effective in explaining the purposes and processes of the research, none of the students volunteered to participate in the study. On reflection, the individual students approached tended not to ask any questions about the research. When the next six students were approached I realised that talking to them as a group was a more invitational approach; the students were much more responsive as a group, as they asked me questions and spoke amongst themselves about the study and what it might mean for them to be involved. Being together in a group clearly gave the students more confidence to interact with me about the research. I also believe that this group left the meeting more informed than the students that I spoke to individually, because they interacted with me and each other more about the research. O'Reilly and Parker (2014) argue that when engaging young persons in research, it is essential to communicate in a way that allows their voices to be heard; it was clear to me that talking to students in a group was a more effective method for engaging them in conversation around research, and seemed to invite questions and discussion from them.

When approaching children and young people about participating in research, Locke et al. (2013) recommend communicating in language that maximises their understanding, and avoids using unnecessary jargon. Indeed, after having spoken to two groups of students, I

understood the importance of being clear and concise when discussing my research: that the aims of the research, and the processes and ethical issues involved, needed to be outlined succinctly. In particular, the students needed to understand the importance of the interview in the research, yet they also required clear information about what the vocabulary test involved, as it seemed to be the most intimidating aspect of being involved in the study. I also needed to allow sufficient time for students to take in the information and ask questions. My success in recruiting the final three participants in the last group of students was, I believe, a result of learning from my previous attempts to recruit participants.

6.7 Summary

In addressing the two research sub-questions, findings and conclusions that relate to the main research question are highlighted. The overarching research question this study sought to address was “How can our understanding of students’ vocabulary learning and self-efficacy in reading and writing inform teacher practice to support subject-based literacy learning?” The understandings gained from this small-scale study show that subject teachers need to consider the ways in which they support students’ acquisition of new vocabulary, in particular long words and scientific words, as well as how they support students’ use of new vocabulary in their writing. Additionally, the findings of this study suggest that teachers need to provide students with more opportunities to master challenging writing tasks in their subject areas, and provide them with regular feedback about their writing. There are implications for English teachers in particular around reading and writing, relating specifically to the provision of more extensive support for some students during novel studies, and during essay writing.

Chapter 7: Conclusions

This research study has provided insights into secondary students' literacy learning, specifically vocabulary acquisition and self-efficacy in reading and writing, across their various subject areas. The participants' experiences of vocabulary learning in the classroom, and their varying levels of self-efficacy in different reading and writing tasks, draw attention to the different literacy learning challenges for individual students. The variables affecting students' self-efficacy in reading and writing tasks across different curriculum areas in this study demonstrate the intertwined and complex nature of the relationship between vocabulary and self-efficacy in reading and writing. This study highlights for teacher-practitioners the importance of vocabulary development for secondary students' literacy learning, as well as the role that self-efficacy plays in students' reading and writing in specific tasks. In this final chapter, implications for further research are discussed, the strengths and limitations of the study are explored, and concluding remarks are made about this research.

7.1 Implications for further research

Implications for further research can be drawn from the findings of this study. These implications are relevant for ongoing research at Riverdale High School, and for the school sector as a whole; research in other school contexts would provide a wider database around students' subject-specific literacy learning in secondary school.

Based on the findings of this study, it could be worth further investigating whether secondary school teachers are sufficiently aware of the effectiveness of morphological instruction as a tool for giving students the power to read and spell new words in the English language. It may also be useful to investigate teachers' awareness of the vocabulary demands of their subjects, in terms of both general academic vocabulary and subject-specific vocabulary. When teachers are "informed and sensitised to the academic vocabulary needs of their students" (Luxton et al., 2017, p 20) they are in a better position to support the students' vocabulary learning.

Students in this study may have benefitted from more explicit feedback on their reading skills from their teachers. Unrau et al (2017), found that targeting multiple sources of self-efficacy has a greater impact on reading self-efficacy than simply targeting one. Butz and Usher (2015) also found that teachers' instructional style played an important role in boosting students' sense of efficacy in reading. Therefore, it might be useful to investigate how much feedback secondary students get on their reading across their subjects, and what kinds of feedback around their reading students find most useful.

7.2 The strengths and limitations of this study

There are strengths and limitations that need to be acknowledged, to support engagement with the findings of this research, and so that implications can be drawn and connections made beyond the context of this study.

The role of a 'teacher-researcher' in the interview setting is an aspect that must be taken into account when analysing the students' responses and conversations. It is possible that the perceived authority of myself as a teacher may have impacted on the students' responses to the questions asked in the interview. In particular, this may have been the case with Poppy, who did not open up as much to me as the other five participants did. It occurred to me after the interview with her, and after reflecting on the challenges encountered when recruiting participants, that the use of focus groups might have provided Poppy with more confidence to discuss her classroom experiences with me. Had she been in a small group, her recall of her learning experiences may have been sparked and encouraged by what other students said. However, the one-on-one interviews with the other five students were insightful, and Olivia in particular shared some personal reflections that I do not think she would have shared had there been anyone else present in the interview.

The use of self-reported data is both a strength and a limitation of this study. The data collected from the interviews are what the students chose to share with me; the same can be said for the self-efficacy questionnaire responses. Research shows that self-report data

on literacy and academic achievement are adequately valid; however, it is generally more accurate for females, average or above-average achievers, and people who are middle-aged (Gilger, 1992; Snowling, Dawes, Nash & Hulme, 2012). Self-report data such as that generated in the interviews in this study relied on adolescent students being able to recall their learning experiences, and describe these experiences in detail. This appeared to be easier for some participants than for others, and thus some of the interview transcripts were longer than others. The students who struggled more with their literacy learning gave less detailed responses regarding pedagogy in their classrooms. While the interviews provided rich, descriptive data relating to the students' ideas and experiences, consistent with the phenomenological foundations of this study, it will be incomplete or selective.

From the analysis of the full interview transcripts it is evident that there were times when I failed to pursue an idea or comment made by a student that, on reflection, would have benefited from further discussion. Asking the students to clarify or explore an idea could also have provided further insight into particular aspects of their experiences, and may have led to richer data. This limitation occurred as a result of my lack of interview experience. Furthermore, the lack of silence in the interview recordings suggests that I could have used pause more effectively. If I had not been so eager to probe into particular topics, students may have been more inclined to fill pauses or gaps in the conversation with their own ideas, thoughts and reflections, leading to further discussion of issues that they deemed particularly relevant, again producing richer data. Again, this limitation was a result of my position as a novice interviewer.

My discussions with the students after the interviews showed me that sometimes interviews do not capture all that is relevant. After the first interview I had a conversation with Arya as we walked back to her class. During this conversation, she expressed some anxiety around her English language skills that she had not discussed during the interview. Much is revealed in more informal conversations, and my interview questions naturally limited the conversation to the topics I was focused on.

Given that participation in the study was voluntary, it could be concluded that the students who chose to participate in the study were those who were more comfortable with and

enthusiastic about discussing their literacy learning with me. However, there was a fairly broad range of literacy levels amongst the students who participated in this study, and it is evident that each student faced particular challenges with their literacy learning. As discussed above, two of the participants in this study appeared to be considerably less engaged in their learning than the other four, and one of these students was not very revealing of the nature of her struggles with literacy learning.

One limitation of qualitative research is the potential lack of generalisability (Hara, 1995). Six students participated in this study. It would have been useful to have gathered data from a greater number of students, thus providing a broader picture of students' experiences of vocabulary learning and reading and writing at Riverdale High School. Given the specific environment, the unique and focused nature of this project, the small number of participants and self-report data, and my viewpoint as an insider and teacher-researcher, it is difficult to generalise findings to other students, schools or projects.

Although the sample of students in this study was small, the small number of participants provided rich, descriptive data, and after the interviews I felt that I had, overall, a good understanding of their strengths and struggles as individual literacy learners. As a result of this I felt that it was appropriate to develop and present narrative analyses/profiles of each student, alongside my thematic analysis. The narrative analyses/profiles allowed me to present each student as a unique individual, to avoid reducing the students' voices simply to the themes identified, and to convey the complexities of their literacy learning. This would not have been possible had more students participated in the study, due to time and space constraints.

While my intention was not to create a study that can be generalised to a large population, this research contributes to wider discussions around adolescent literacy in secondary school classrooms by investigating an area of teaching and learning from the point of view of the learners, for which there is a limited amount of research evidence. The insights in this particular study could be of interest to teachers in secondary schools in Aotearoa New Zealand where students are struggling with the literacy demands of the curriculum. Readers of this thesis will be able to make connections and draw parallels between this research

study and their own school context. Furthermore, the findings suggest important considerations for myself as a teacher and for my colleagues, as well as for future researchers in this area.

7.3 Concluding remarks

This research draws on the voices of six Year 10 secondary school students, capturing their interpretations of their experiences of vocabulary learning in their classrooms, and interpreting their discussions around their self-efficacy in reading and writing tasks across the curriculum areas. While this study is confirmatory of much of the existing research literature around adolescent vocabulary learning and self-efficacy in reading and writing, it complements previous research findings by offering a different perspective with regard to students' literacy learning. The findings of this study both enhance educators understanding of what is happening for the students in their classrooms, and suggest important implications for teachers and schools.

The diversity of experiences amongst the participants highlights the unique complexities of each individual's struggles, and the findings of this study suggest a number of areas to focus on, in order to better support students' subject-based literacy learning. This study shows that there was a variety of activities and strategies being used for vocabulary learning in their classrooms, but that students would have benefited from further support with their vocabulary acquisition. It draws attention to particular reading and writing tasks within certain subject areas that students struggle with, and points to particular areas of literacy learning where students need further support, emphasising some of the important sources of reading and writing self-efficacy for students.

The findings of this research suggest that to enhance students' subject-based literacy learning in secondary school, teachers need to utilise evidence-based instructional approaches for students' vocabulary acquisition, and provide more support for some students in specific reading and writing activities, across the curriculum areas. At a personal level, this study has important implications for me and for my colleagues as English teachers

at Riverdale High School. The importance of teacher-student relationships for literacy learning is also highlighted in this study.

There are also implications for school leadership, specifically middle and senior management, in any school context. Important questions are raised around the ways in which individual students are identified and provided with structural support by the school for their literacy learning, and for assessments. Inequities in the students' engagement and achievement in the classroom suggest that more can be done by teachers and schools to understand and support the complex challenges faced by individual students in their literacy learning.

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Appendices

Appendix 1: Vocabulary Size Test: Version A, page 1

1. see: They <saw it>.
 - a closed it tightly
 - b waited for it
 - c looked at it
 - d started it up

2. time: They have a lot of <time>.
 - a money
 - b food
 - c hours
 - d friends

3. period: It was a difficult <period>.
 - a question
 - b time
 - c thing to do
 - d book

4. figure: Is this the right <figure>?
 - a answer
 - b place
 - c time
 - d number

5. poor: We <are poor>.
 - a have no money
 - b feel happy
 - c are very interested
 - d do not like to work hard

6. microphone: Please use the <microphone>.
 - a machine for making food hot
 - b machine that makes sounds louder
 - c machine that makes things look bigger
 - d small telephone that can be carried around

7. nil: His mark for that question was <nil>.
 - a very bad
 - b nothing
 - c very good
 - d in the middle

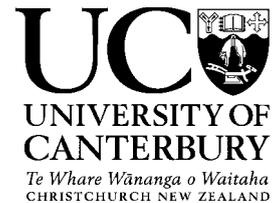
8. pub: They went to the <pub>.
 - a place where people drink and talk
 - b place that looks after money
 - c large building with many shops

Appendix 2: Self-efficacy questionnaire

Self-Efficacy Questionnaire

	Not at all			Very well		
1. How well can you read a chapter or section of a fictional text at school?						
2. How well can you read a chapter or section of a non-fiction text at school?						
3. How well can you write a short piece of creative writing at school? (For example, in English, Social Studies, Drama)						
4. How well can you write an explanation at school? (For example, in Science, Social Studies, Maths)						
5. How well do you understand the language used in your subjects at school?						
6. How well can you learn new words at school?						
7. How well can you use new words in your writing?						
8. How well can you complete projects and assignments that involve lots of reading and writing?						

Appendix 3 – Information sheets and consent Forms



College of Health, Education and Human Development
Telephone: 021 2687462
Email: susan.briggs@pg.canterbury.ac.nz
1 July 2019
ERHEC Ref: 2019/25/ERHEC

Adolescent Literacy: Vocabulary and Self-Efficacy Information Sheet for Ākonga/Students

My name is Susan Briggs, and I am a post-graduate student at the University of Canterbury. I am completing a Master of Education in literacy learning. I am also a teacher at Burnside High School. The aim of this research is to investigate how students learn and use new words in the classroom at secondary school. It will look at the words they know and use, and also the different kinds of words they use in their subjects at school. This research will also investigate students' confidence in reading and writing at secondary school, and how this relates to their language learning in the classroom.

You have been asked to take part in this study because I wish to carry out research with a range of Year 10 students from different classes. I have located your contact details through the Head of the English Faculty and your English teacher.

If you choose to take part in this study you will sit a short vocabulary test of approximately 30 minutes, complete a brief questionnaire on your confidence in reading and writing, and be interviewed by myself, the researcher. Interviews will take between 30 and 60 minutes, and will be recorded using a digital voice recorder. I will then transcribe the interviews. Your e-asTTle reading and PAT reading test results from Term 1, 2019 will also be used in this study, if you consent to being involved in this research. I will then analyse the results of all the data.

You will be offered the opportunity to check the interview transcript, and also check what the researcher has written about what you said.

Participation is voluntary, which means it is your choice whether you take part in this study. If you choose to take part in the study, you have the right to withdraw from the study at any time without any consequences. You may ask for your data to be returned to you or destroyed at any point, up until the 30th August 2019. If you withdraw, I will remove information relating to you. However, it will be difficult to remove the influence of your data on the results after the 30th August 2019.

There are possible risks during the research process. One risk is that receiving the results of the test and questionnaire could negatively affect your confidence or self-esteem. It is therefore optional as to whether you see the test results or not. Only you will be allowed to see your results from the test and questionnaire, and it will be your choice as to whether you share them with your parents/caregivers.

The vocabulary test will be used to measure the size of your reading vocabulary. The questionnaire will provide me with some information about your confidence in reading and writing tasks, and help me develop the questions for the interview. There is no 'pass' mark, or any 'Achieved', 'Merit' or 'Excellence' grades, for either the questionnaire or the vocabulary test.

Another possible risk is that the idea of an interview could make you feel anxious or stressed. For this reason, the interview will be 'semi-structured' - this means it is not a formal interview, but instead an informal conversation in which I will ask you some questions to prompt discussion. I will show you how to work the digital recording device, and you will be able to stop and start the recording device at any point during the interview.

The findings from this study may be published in research journals or presented at a conference but people will not be able to identify you, as I will not use any students' real names when I talk about my research. All data and information that I obtain from you will remain confidential, and will not be shared with your teachers or anyone else in the school. Only myself as the researcher and my two supervisors at the University of Canterbury will have access to this information. All electronic data will be securely stored in password protected facilities on my laptop and backed up on University of Canterbury server. Printed data will be securely stored in password protected facilities and locked storage at the University of Canterbury for five years following the study. The raw data will be destroyed after 5 years.

I will protect your identity as far as possible in this study. The Head of English Faculty and your English teacher know that you have been selected for this study, and other students might know you are participating as you leave the class to take part. Some people who read my thesis will know that I work at Burnside High School, but they won't know that you have participated in the research, and no-one will be able to identify you in my thesis as you will be given a pseudonym or 'fake name'. The identity of the school will be hidden and detailed information about the school will not appear in the final thesis. A thesis is a public document and will be available through the UCLibrary.

Please let me know on the consent form if you would like to receive a copy of the summary of results of the project.

The project is being carried out as a requirement for a thesis for a Master of Education by Susan Briggs, under the supervision of Associate Professor Jane Abbiss and Associate Professor Alison Arrow, who can be contacted at jane.abbiss@canterbury.ac.nz and alison.arrow@canterbury.ac.nz. They will be pleased to discuss any concerns you may have about participation in the project. This project has been reviewed and approved by the University of Canterbury Educational Research Human Ethics Committee, and participants should address any complaints to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study, you are asked to complete the consent form and return the form to your English teacher, who will pass it onto me, the researcher.

Please feel free to email me at susan.briggs@pg.canterbury.ac.nz if you have any further questions about this research.

Thank you

Susan Briggs

Department of Health, Education and Human Development
Telephone: 021 2687462
Email: susan.briggs@pg.canterbury.ac.nz

Adolescent Literacy: Vocabulary and Self-Efficacy Consent Form for Ākongas/Students

- I have been given a full explanation of this project and have had the opportunity to ask questions.
- I understand what is required of me if I agree to take part in the research.
- I understand that participation is voluntary and I may withdraw from the study at any time without consequences. Withdrawal of participation will also include the withdrawal of any information I have provided, up to the 30th August 2019. It will not be possible to withdraw raw data after 30th August 2019.
- I understand that any information I provide will be kept confidential to the researcher and her supervisors and that any published results will not identify me or the school. I understand that a thesis is a public document and will be available through the UC Library.
- I understand that all data collected for the study will be kept in locked and secure facilities and in password protected electronic form and will be destroyed after five years.
- I understand the risks associated with taking part and how they will be managed.
- I understand that I can contact the researcher Susan Briggs susan.briggs@pg.canterbury.ac.nz, or her supervisors Associate Professor Jane Abbiss jane.abbiss@canterbury.ac.nz and Associate Professor Alison Arrow alison.arrow@canterbury.ac.nz for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz)
- I would like a summary of the results of the project.
- By signing below, I agree to participate in this research project.

Name: _____ Signed: _____ Date: _____

Email address: _____

Please return this form to your English teacher, who will pass it onto Susan Briggs, the researcher.

College of Health, Education and Human Development
Telephone: 021 2687462
Email: susan.briggs@pg.canterbury.ac.nz
1 July 2019
ERHEC Ref: 2019/25/ERHEC

Adolescent Literacy: Vocabulary and Self-Efficacy Information Sheet for Parents/Caregivers

My name is Susan Briggs, and I am a post-graduate student at the University of Canterbury. I am completing a Master of Education, in the area of literacy learning. I am also a teacher at Burnside High School. The aim of this research is to investigate how students learn and use new words in the classroom at secondary school. It will look at the words they know and use, and also the different kinds of words they use in their subjects at school. This research will also investigate students' confidence in reading and writing at secondary school, and how this relates to their language learning in the classroom.

Your child has been asked to take part in this study because I wish to carry out research with a range of Year 10 students from different classes. I have located their contact details through the Head of English Faculty and their English teacher.

If your child chooses to take part in this study, and you agree to their participation, they will sit a short vocabulary test of approximately 30 minutes, complete a brief questionnaire on their confidence in reading and writing, and be interviewed by myself, the researcher. Interviews will take between 30 and 60 minutes, and will be recorded using a digital voice recorder. I will then transcribe the interviews. Your child's e-asTTle reading and PAT reading test results from Term 1, 2019 will also be used in this study, if you and your child consent to them being involved in this research. I will then analyse the results of all the data.

Your child will be offered the opportunity to check the interview transcript, and also check what the researcher has written about what they said.

Participation is voluntary and your child has the right to withdraw at any stage without consequences. They may ask for their data to be returned to them or destroyed at any point. If they withdraw, I will remove information relating to them. However, once analysis of raw data starts on 30th August 2019, it will become increasingly difficult to remove the influence of their data on the results.

There are possible risks during the research process. One risk is that receiving the results of the test and questionnaire could negatively affect their confidence or self-esteem. It is therefore optional as to whether they see the test results or not. Only your child will be allowed to see their results from the vocabulary test and questionnaire, and it will be their choice as to whether they share them with you, their parents/caregivers. There is no 'pass' mark, or any 'Achieved', 'Merit' or 'Excellence' grades, for either the questionnaire or the vocabulary test.

Another possible risk is that the idea of an interview could make your child feel anxious or stressed. For this reason, the interview will be 'semi-structured' - this means it is not a formal interview, but more an informal conversation in which I will ask them some questions to prompt discussion. I will show your child how to work the digital recording device, and they will be able to stop and start the recording device at any point during the interview.

The findings from this study may be published in research journals or presented at a conference but people will not be able to identify your child, as I will not use any students' real names when I talk about my research. All data and information that I obtain from them will remain confidential, and will not be shared with teachers or anyone else in the school. Only myself as the researcher and my two supervisors at the University of Canterbury will have access to this information. All electronic data will be securely stored in password protected facilities on my laptop and backed up on University of Canterbury server. Printed data will be securely stored in password protected facilities and locked storage at the University of Canterbury for five years following the study. The raw data will be destroyed after 5 years.

I will protect your child's identity as far as possible in this study. The Head of English Faculty and your child's English teacher know that they have been selected for this study, and other students might know they are participating as they leave the class to take part. Some people who read my thesis will know that I work at Burnside High School, but they won't know that your child was a participant in my research. No-one will be able to identify your child in my thesis as they will be given a pseudonym or 'fake name'. The identity of the school will be hidden and detailed information about the school will not appear in the final thesis. A thesis is a public document and will be available through the UCLibrary.

The project is being carried out as a requirement for a thesis for a Master of Education by Susan Briggs, under the supervision of Associate Professor Jane Abbiss and Associate Professor Alison Arrow, who can be contacted at jane.abbiss@canterbury.ac.nz and alison.arrow@canterbury.ac.nz. They will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Educational Research Human Ethics Committee, and participants should address any complaints to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to your child's participation in the study, you are asked to complete the consent form and return the form to your child's English teacher via your child, who will pass it onto me.

Thank you

Susan Briggs

Department of Health, Education and Human Development
Telephone: 021 2687462
Email: susan.briggs@pg.canterbury.ac.nz

Adolescent Literacy: Vocabulary and Self-Efficacy Consent Form for Parents/Caregivers

- I have been given a full explanation of this project and have had the opportunity to ask questions.
- I understand what is required of my child if I agree to them taking part in the research.
- I understand that participation is voluntary and my child may withdraw at any time without consequences. Withdrawal of participation will also include the withdrawal of any information they have provided, up to the 30th August 2019. It will not be possible to withdraw raw data after 30th August 2019.
- I understand that any information my child provides will be kept confidential to the researcher and her supervisors and that any published results will not identify my child or the school. I understand that a thesis is a public document and will be available through the UC Library.
- I understand that all data collected for the study will be kept in locked and secure facilities and in password protected electronic form and will be destroyed after five years.
- I understand the risks associated with taking part and how they will be managed.
- I understand that I can contact the researcher Susan Briggs susan.briggs@pg.canterbury.ac.nz, or her supervisors Associate Professor Jane Abbiss jane.abbiss@canterbury.ac.nz and Associate Professor Alison Arrow alison.arrow@canterbury.ac.nz for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz)
- By signing below, I agree to my child participating in this research project.

Name: _____ Signed: _____ Date: _____

Please return this form to your child's English teacher, via your child, who will pass it onto the researcher, Susan Briggs.

College of Health, Education and Human Development
Telephone: 0212947100
Email: susan.briggs@pg.canterbury.ac.nz
10 May 2019
ERHEC Ref: 2019/25/ERHEC

Adolescent Literacy: Vocabulary and Self-Efficacy Information Sheet for Tumuaki/Principal

My name is Susan Briggs, and I am a post-graduate student at the University of Canterbury, as well as a teacher at Burnside High School. I am completing a Master of Education, in the area of literacy learning.

Research shows that secondary school students encounter increasingly complex, subject-specific texts that require them to read and understand more sophisticated vocabulary; they also need to be able to write using much wider vocabularies than in primary school. A significant proportion of students enter secondary school with vocabularies and reading comprehension levels below where they are expected to be. Often, these students exhibit low self-efficacy with regard to both their literacy learning, and their learning overall. The aim of my research is to explore with secondary school students their experiences of vocabulary learning in the classroom, and their perceptions and understandings of their self-efficacy in reading and writing at secondary school. This study will also investigate the relationship between the students' vocabularies and their self-efficacy in reading and writing, and the possible implications this has for teacher practice in the classroom. The intention is to gain insights into improving students' vocabulary learning, and how to provide them with richer learning opportunities that enhance their self-efficacy in reading and writing. I am hereby seeking your permission to conduct this research at Burnside High School.

This will be a focused study with a small sample that focuses on Year 10 students from across two classes. Students who choose to take part in this study will sit a short vocabulary test of approximately 30 minutes, complete a brief questionnaire on their confidence in reading and writing, and be interviewed by myself, the researcher. Interviews will take between 30 and 60 minutes, and will be recorded using a digital voice recorder. I will then transcribe the interviews. Students e-asTTle reading and PAT reading test results from Term 1, 2019 will also be used in this study, if they and their parents/caregivers consent to them being involved in this research. I will then analyse the results of all the data.

I aim to select participants from B band classes, to ensure that the voices of students who struggle with reading and writing are more likely to be heard in this study. Therefore, I wish to consult with the Head of English Faculty in order to select two Year 10 classes, and identify a classroom teacher of each class who can help me select potential participants. Up to 20 individual students with a range of literacy levels will be selected from the two classes in collaboration with the classroom teachers and the Head of English Faculty. These students will then be approached by the researcher to take part in the research, with the intention of recruiting a minimum of 6 participants for the study.

Participation is voluntary and I will be seeking informed consent from both the students and their parents via an information letter and consent form. I will also speak to the students in person about the research purposes and processes and any ethical issues around it, and allow them time to ask questions. Students may ask for their data to be returned to them or destroyed at any point. If they withdraw, I will remove information relating to them. However, once analysis of raw data starts on 30th August 2019, it will become increasingly difficult to remove the influence of their data on the results.

The risk to students in this study is low, however, research with students does present ethical challenges. A range of risks have therefore been addressed through the ethical procedures at the University of Canterbury. The care for welfare of students and minimising any potential risks is at the forefront of my research, including issues of confidentiality, anonymity and safety.

Susan Briggs

This research is focusing on students, as opposed to the practices of the school and its teachers. All student-participants, and any teachers mentioned by the students in the interviews, will be given pseudonyms in the thesis, so that their privacy and confidentiality is protected. Detailed information about the school will not appear in the final thesis, and thus the identity of the school will be masked as far as possible. In future, I will be able to share broad findings and implications from this study with my colleagues, but this will be done in a way that minimises the risk of individuals being identified. There is also a risk that staff will find my requests as a researcher an added burden to their already heavy workloads. This is why I wish to approach them early on in the recruitment process, to identify a wide range of potential student-participants. I anticipate that this process will take up to half an hour of time from the Head of English Faculty, and up to half an hour from each of the classroom teachers.

The results of the project may be published, but the participants and the school may be assured of the complete confidentiality of data gathered in this investigation. All data and information that I obtain will remain confidential, and will not be shared with anyone else in the school. Only myself as the researcher and my two supervisors at the University of Canterbury will have authorised access to this information. All electronic data will be securely stored in password protected facilities on my laptop and backed up on University of Canterbury server. Printed data will be securely stored in password protected facilities and locked storage at the University of Canterbury for five years following the study. The data will then be destroyed. A thesis is a public document and will be available through the University of Canterbury Library.

The project is being carried out as a requirement for a thesis for a Master of Education by Susan Briggs, under the supervision of Associate Professor Jane Abbiss and Associate Professor Alison Arrow, who can be contacted at jane.abbiss@canterbury.ac.nz and alison.arrow@canterbury.ac.nz. They will be pleased to discuss any concerns you may have about participation in the project. This project has been reviewed and approved by the University of Canterbury Educational Research Human Ethics Committee, and participants should address any complaints to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz). If you wish, I would be happy to develop a separate Information Sheet for the Board of Trustees.

If you agree to the school's participation in this research, please complete the attached consent form and scan and return it to Susan Briggs (susan.briggs@pg.canterbury.ac.nz).

Thank you

Susan Briggs

Susan Briggs

Department of Health, Education and Human Development
Telephone: 0212947100
Email: susan.briggs@pg.canterbury.ac
10th May 2019
ERHEC Ref: 2019/25/ERHEC

Adolescent Literacy: Vocabulary and Self-Efficacy Consent Form for Tumuaki/Principal

- I have been given a full explanation of this research and have had the opportunity to ask questions.
- I understand what will be required of the staff and students if I agree to the school's participation in the research.
- I understand that participation is voluntary and students may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information they have provided, up to the 30th August 2019. It will not be possible to withdraw raw data after 30th August 2019.
- I understand that any information or opinions provided by the participants will be kept confidential to the researcher and her supervisors, and that any published or reported results will not identify students, teachers or the school. I understand that a thesis is a public document and will be available through the UC Library.
- I understand that all data collected for the study will be kept in locked and secure facilities and in password protected electronic form and will be destroyed after five years.
- I understand the risks associated with taking part and how they will be managed.
- I understand that I can contact the researcher Susan Briggs susan.briggs@pg.canterbury.ac.nz, or her supervisors Associate Professor Jane Abbiss jane.abbiss@canterbury.ac.nz and Associate Professor Alison Arrow alison.arrow@canterbury.ac.nz for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Educational Research Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz)
- By signing below, I agree to our school participating in this research project.

Name: _____ Signed: _____ Date: _____

Please scan and return this consent form to Susan Briggs (susan.briggs@pg.canterbury.ac.nz)

College of Health, Education and Human Development
Telephone: 0212947100
Email: susan.briggs@pg.canterbury.ac.nz
17 May 2019
ERHEC Ref: 2019/25/ERHEC

Adolescent Literacy: Vocabulary and Self-Efficacy Information Sheet for Head of the English Faculty

My name is Susan Briggs, and I am a post-graduate student at the University of Canterbury, as well as a teacher at Burnside High School. I am completing a Master of Education, in the area of literacy learning. The aim of this research is to explore with secondary school students their experiences of vocabulary learning in the classroom, and their perceptions and understandings of their self-efficacy in reading and writing at secondary school. This study will also investigate the relationship between the students' vocabularies and their self-efficacy in reading and writing, and the possible implications this has for teacher practice in the classroom.

This will be a focused study with a small sample that focuses on Year 10 students from across two classes. Students who choose to take part in this study will sit a short vocabulary size test, complete a brief questionnaire on their self-efficacy in reading and writing, and be interviewed by myself, the researcher. I will then transcribe the interviews, and analyse the results of all the data. Students' e-asTTle reading and PAT reading test results from Term 1, 2019 will also be used to show general reading vocabulary strength.

I am hereby seeking your assistance, as Head of the English Faculty, in the selection process of potential student-participants. I wish to select two Year 10 classes from the 'B band', to ensure that the voices of students who struggle with reading and writing are more likely to be heard in this study. Within these two classes, up to 20 individual students with a range of literacy levels will be selected, in consultation with yourself and one of their classroom teachers. I anticipate that this process will take approximately 15 minutes of your time, and up to half an hour of each of the classroom teachers' time.

The students will then be approached by me, the researcher, to take part in the research, with the intention of recruiting a minimum of 6 participants for the study. Participation is voluntary and I will be seeking informed consent from both the students and their parents/guardians via an information letter and consent form. I will also speak to the students in person about the research purposes and processes and any ethical issues around it, and allow them time to ask questions. Students have the right to withdraw at any stage without penalty. They may ask for their data to be returned to them or destroyed at any point. If they withdraw, I will remove information relating to them. However, once analysis of raw data starts on 30th August 2019, it will become increasingly difficult to remove the influence of their data on the results.

Susan Briggs

Students who choose to take part in this study will sit a short vocabulary test of approximately 30 minutes, complete a brief questionnaire on their confidence in reading and writing, and be interviewed by myself, the researcher. Interviews will take between 30 and 60 minutes, and will be recorded using a digital voice recorder. I will then transcribe the interviews. Students e-asTTle reading and PAT reading test results from Term 1, 2019 will also be used in this study, if they and their parents/caregivers consent to them being involved in this research. I will then analyse the results of all the data.

Upon gaining informed consent from both the students and their parents/guardians I will require access to participants' e-asTTle and PAT test reading test results from Term 1, 2019. My estimation is that this will take another 15 minutes of your time.

The risk to students in this study is low, however, research with students does present ethical challenges. A range of risks have therefore been addressed through the ethical procedures at the University of Canterbury. I will protect the anonymity of the student-participants as far as possible in this study, however, the nature of the research means that the complete anonymity of participants cannot be guaranteed. This is because both yourself and the classroom teachers involved in the selection process will know the identities of the students selected for this research. The confidentiality of the participants is important and therefore you are asked not to share this information with anyone else. The care for welfare of students and minimising any potential risks is at the forefront of my research, including issues of confidentiality, anonymity and safety.

This research is focusing on students, as opposed to the practices of the school and its teachers. All student-participants, and any teachers mentioned by the students in the interviews, will be given pseudonyms in the thesis, so that their privacy and confidentiality is protected in the reporting of my results. Detailed information about the school will not appear in the final thesis, and thus the identity of the school will be masked as far as possible. In future, I will be able to share broad findings and implications from this study with my colleagues, but this will be done in a way that minimises the risk of individuals being identified.

The results of the project may be published, but the participants and the school may be assured of the complete confidentiality of data gathered in this investigation. All data and information that I obtain will remain confidential, and will not be shared with anyone else in the school. Only myself as the researcher and my two supervisors at the University of Canterbury will have authorised access to this information. All electronic data will be securely stored in password protected facilities on my laptop and backed up on University of Canterbury server. Printed data will be securely stored in password protected facilities and locked storage at the University of Canterbury for five years following the study. The raw data will be destroyed after 5 years. A thesis is a public document and will be available through the UCLibrary.

The project is being carried out as a requirement for a thesis for a Master of Education by Susan Briggs, under the supervision of Associate Professor Jane Abbiss and Associate Professor Alison Arrow, who can be contacted at jane.abbiss@canterbury.ac.nz and alison.arrow@canterbury.ac.nz. They will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Educational Research Human Ethics Committee, and participants should address any complaints to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

Thank you

Susan Briggs

Susan Briggs

College of Health, Education and Human Development
Telephone: 0212947100
Email: susan.briggs@pg.canterbury.ac.nz
27 May 2019
ERHEC Ref: 2019/25/ERHEC

Adolescent Literacy: Vocabulary and Self-Efficacy Information Sheet for Kaiako/Teachers

My name is Susan Briggs, and I am a post-graduate student at the University of Canterbury, as well as a teacher at Burnside High School. I am completing a Master of Education, in the area of literacy learning. The aim of this research is to explore with secondary school students their experiences of vocabulary learning in the classroom, and their perceptions and understandings of their self-efficacy in reading and writing at secondary school. This study will also investigate the relationship between the students' vocabularies and their self-efficacy in reading and writing, and the possible implications this has for teacher practice in the classroom.

This will be a focused study with a small sample that focuses on Year 10 students from across two classes. Students who choose to take part in this study will sit a short vocabulary size test, complete a brief questionnaire on their self-efficacy in reading and writing, and be interviewed by myself, the researcher. I will then transcribe the interviews, and analyse the results of all the data. Students' e-asTTle reading and PAT reading test results from Term 1, 2019 will also be used to show general reading vocabulary strength

I am hereby seeking your assistance, as one of the classroom teachers of 10____, in the selection process of potential student-participants. I wish to select ten students from 10____ to ensure that students with a range of literacy levels are likely to be heard in this study. I anticipate that this process will take up to half an hour of your time.

The students will then be approached by me, the researcher, to take part in the research, with the intention of recruiting a minimum of 6 participants for the study. Participation is voluntary and I will be seeking informed consent from both the students and their parents via an information letter and consent form. I will also speak to the students in person about the research purposes and processes and any ethical issues around it, and allow them time to ask questions. Students have the right to withdraw at any stage without penalty. They may ask for their data to be returned to them or destroyed at any point. If they withdraw, I will remove information relating to them. However, once analysis of raw data starts on 30th August 2019, it will become increasingly difficult to remove the influence of their data on the results.

Students who choose to take part in this study will sit a short vocabulary test of approximately 30 minutes, complete a brief questionnaire on their confidence in reading and writing, and be interviewed by myself, the researcher. Interviews will take between 30 and 60 minutes, and will be recorded using a digital voice recorder. I will then transcribe the interviews. Students e-asTTle reading and PAT reading test results from Term 1, 2019 will also be used in this study, if they and their parents/caregivers consent to them being involved in this research. I will then analyse the results of all the data.

The risk to students in this study is low, however, research with students does present ethical challenges. A range of risks have therefore been addressed through the ethical procedures at the University of Canterbury. I will protect the anonymity of the student-participants as far as possible in this study, however, the nature of the research means that the complete anonymity of participants cannot be guaranteed. This is because yourself, one other classroom teacher, and the Head of English Faculty, are involved in the selection process, and therefore will know the identities of the students selected for this research. The confidentiality of the participants is important and therefore you are asked not to share this information with anyone else. The care for welfare of students and minimising any potential risks is at the forefront of my research, including issues of confidentiality, anonymity and safety.

This research is focusing on students, as opposed to the practices of the school and its teachers. All student-participants, and any teachers mentioned by the students in the interviews, will be given pseudonyms in the thesis, so that their privacy and confidentiality is protected in the reporting of my results. Detailed information about the school will not appear in the final thesis, and thus the identity of the school will be masked as far as possible. In future, I will be able to share broad findings and implications from this study with my colleagues, but this will be done in a way that minimises the risk of individuals being identified.

The results of the project may be published, but the participants and the school may be assured of the complete confidentiality of data gathered in this investigation. All data and information that I obtain will remain confidential, and will not be shared with anyone else in the school. Only myself as the researcher and my two supervisors at the University of Canterbury will have authorised access to this information. All electronic data will be securely stored in password protected facilities on my laptop and backed up on University of Canterbury server. Printed data will be securely stored in password protected facilities and locked storage at the University of Canterbury for five years following the study. The raw data will be destroyed after 5 years. A thesis is a public document and will be available through the UCLibrary.

The project is being carried out as a requirement for a thesis for a Master of Education by Susan Briggs, under the supervision of Associate Professor Jane Abbiss and Associate Professor Alison Arrow, who can be contacted at jane.abbiss@canterbury.ac.nz and alison.arrow@canterbury.ac.nz. They will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Educational Research Human Ethics Committee, and participants should address any complaints to The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

Thank you

Susan Briggs

Appendix 4: Topics, questions and prompts for semi-structured interviews

Primary vs secondary school

Where did you grow up/go to primary school?

Could you please tell me a bit about and describe:

- what it was like to finish primary school and begin high school
- the main differences between reading and writing at primary school, and reading and writing at high school

Subjects at high school – likes/dislikes/challenges

Which subjects are you studying this year?

Which subjects do you enjoy the most at Riverdale High school? Why do you enjoy them?

Which subjects do you find difficult or challenging at school? What is it that you find difficult or challenging about them?

Home compared to school.

What language or languages do you speak at home?

Do you read at home? (In what languages?) What do you read – websites?

Newspapers? Books?

Do you write at home? If so, what do you write?

Do you enjoy learning new words?

Do you think you have a strong vocabulary?

Where do you think you have the strongest word knowledge – home or school?

Do you get help/support at home, if you are struggling with a subject or a particular topic school?

Do you do lots of homework/extra study/tutoring?

Reading at school

Text types

What types of texts do you have to read at secondary school? How is that different to what you had to read at primary school?

Which types of texts do you enjoy reading the most at school? Which types of texts do you find the most difficult to read at school?

What sort of texts do you have to read in _____ [*insert least fav subject*]?

How often do you read text online at school? What types of texts do you read online?

Enjoyment of, confidence in and motivation in reading at school

Do you enjoy reading at school? Why/why not? What types of texts do you like to read?

Do you see yourself as a confident reader? Why/not?

What helps build your confidence in reading at school? What motivates you to read in your subjects?

Writing at school

Text types

What about writing – what do you have to write at secondary school? How is that different to what you had to write at primary school?

What kinds of writing do you enjoy the most at school? Which kinds of writing do you find the most challenging at school?

What sort of texts do you have to write in _____ [*insert least fav subject title*]?

How much of the writing you do is done on a computer?

Enjoyment of, confidence in and motivation in writing at school

Do you enjoy writing at school? Why/why not? What types of texts you like to write?

Do you see yourself as a confident writer? Why?

What helps build your confidence in writing at school?

What motivates you to write in your subjects?

Feedback: What kind of feedback do you get from your teachers on your writing?

Assessment: the impact of assessment on self-efficacy/confidence in reading/writing

How do you find assessments at school?

How do you feel after sitting an assessment that requires lots of reading?

How do you feel after sitting an assessment that requires lots of writing?

LANGUAGE USED IN EACH SUBJECT: Compare/contrast. Disciplinary literacy vs general academic language

Which subjects at school use the most challenging and complex language?

Is the language used in _____ *[insert least fav subject title]* more challenging to understand than the language used in _____ *[insert fav subject title]*? Why?

What kinds of language do you find challenging to use? E.g. subject specific OR general academic language? Is the new vocabulary you learn the kinds of words that you might use in another subject, or outside of school, OR just words you might use in a particular subject?

ACTIVITIES AND STRATEGIES used to learn/use new vocab – what works? What doesn't work?

READING:

What activities or strategies are used in _____ *[insert subject title]* (OR any of your subjects) when you have to learn new words (or phrases/concepts)?

Do you find it a helpful activity for learning new vocabulary? Why/Why not?

What helps you to learn new words?

WRITING:

What activities or strategies are used in _____ when you have to write about a new topic, or use new vocabulary? Is this a helpful activity? Why/Why not?

Do you find it a helpful activity for learning new vocabulary? Why/Why not?

What helps you to use new words?

THE FUTURE: What subjects are you thinking of taking next year, and why you are thinking of taking them?

Appendix 5: Excerpt from qualitative data analysis

2

I'm taking French, Food and Art this year.

Is that Food Tech, Food Technology?

Yeah.

Of all your subjects, which one do you enjoy the most, and why?

Um probably English because I dunno, I just like English. Um, Social Studies, I like learning about the world, um...and Art and Food.

Cool OK. Which subjects do you find the most difficult?

Science and French.

OK, can you tell me about why those are difficult?

Um, Science, I just don't like my teachers, so you find it difficult to learn when you don't like your teachers.

relationship
my teachers
→ 2nd comment
THEME?

Yup.

Uh, French, I just find it hard to pick up another language...because I've got dyslexia, so it's, that's difficult, like, one, learning about English, and then going to French in a different language is, a lot difficult.

→ reveals
dyslexia!!

Yeah, and I think French has quite difficult spelling as well...

Yeah, it's like the same alphabet, but it's just like weird, I don't understand it.

So um I just sit there in French and act like I know what I'm doing.

→ coping strategy?

So um what languages do you speak at home?

English.

↓
SHAME?

Do you read much at home?

No.

OK. And do you do any writing at home?

Um, not really.

Do you think you read much online, like, do you go on Social Media?

Yeah, I prob-, normally talk to my friends. That's what I do for reading.

Do you like learning new words, in English?

Sometimes, as long as they're not really long words.

Vocabulary Learning
long words identified
as challenging
→ same as 2 other students.

So you find long words difficult?

Yup.

Do you think you have a strong vocabulary?

Probably not. *low confidence?*

OK...why do you think that?

I don't know. It's just...you don't really think about it do you. Like, I don't know how many words I know.

Yup, OK. Do you...um, if you're struggling with a subject at school, like Science or French, um do you have someone at home that can help you?

Uh I talk to mum about it, but, she's sort of one of those ones like, she doesn't mind what my grades are as long as they're not really really bad. And she knows that I don't like Science, and mum knows that I'm not gonna be like a scientist or something, so she's like, just do your best, that's all she can ask for.

parental support

Do you do lots of homework? Do you get lots of homework?

No I don't get much of it...I probably do, and just don't know that it's actually homework. *vague response*

↓
contrast w/
other
dyslexic
student!

So what types of texts do you have to read at Burnside High School?

Uh...I dunno. Probably like, little paragraphs or like sentences.

In what subjects would you come across little paragraphs in?

Probably Science, Social Studies maybe, English, that's probably about it.

dyslexia
↑

OK um...do you find it difficult to read a paragraph?

Um I don't find it difficult to read it in my head, it's just reading out loud. I hate reading out loud. Like with speeches, I refuse to read them out loud. I hate reading in front of people.

decoding issues?

low confidence in reading

Yup, OK. So, in English, like, have you had to read a novel this year?

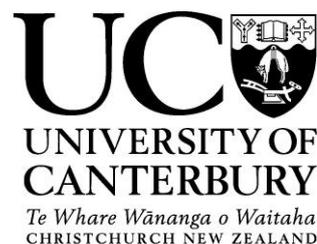
Yeah.

What novel did you guys do?

I think we did Stone Cold. I think...I think that's what we did.

→ novels
vague response... and she read it? Not fully engaged? Needed to probe further.

Appendix 6: Ethical approval from ERHEC



HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: 2019/25/ERHEC

9 May 2019

Susan Briggs
College of Education, Health and Human Development
UNIVERSITY OF CANTERBURY

Dear Susan

Thank you for providing the revised documents in support of your application to the Educational Research Human Ethics Committee. I am very pleased to inform you that your research proposal “Adolescent Literacy - Vocabulary Development and Self-Efficiency” has been granted ethical approval.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 9th May 2019.

Should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please let me know.

We wish you well for your research.

A handwritten signature in black ink that reads 'R. Robinson'.

Yours sincerely pp
Dr Patrick Shepherd

Chair Educational Research Human Ethics Committee

Please note that ethical approval relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval by the Educational Research Human Ethics Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research. F E S