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Print literacy interventions and their contribution to literacy development:

A complex and multifaceted relationship.

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Abstract

Internationally, approximately one in five students will experience difficulties in acquiring print literacy. A common educational response is to provide these students with an intervention to accelerate their learning in this area. Literacy difficulties and appropriate responses are explained differently by researchers from sociocultural and cognitive paradigms, though neither theory fully explains these phenomena.

This thesis investigates the broad outcomes of literacy interventions for primary aged students in Victoria, Australia using a socio-cognitive lens (Ruddell & Unrau, 2004). Quantitative online and questionnaire data were gathered to establish the prevalence of literacy interventions, and to gain an understanding of commonly used programs. Case studies were conducted in one Government and one Catholic school to explore how three print literacy interventions were implemented in these particular contexts, and to investigate six students' learning trajectories through and beyond these interventions. A range of data were gathered to explore students' literacy strengths and challenges, their home, school, and intervention learning, and their literacy development from both sociocultural and cognitive perspectives.

A systematic, inductive analysis of the questionnaire and case study data elicited a model of six key factors impacting on a) schools' literacy intervention provision and implementation, and b) students' literacy development through an intervention. Extrinsic factors were identified as: policy and funding influences; school level logistics; professional expertise; school, home, and intervention learning; and relationships between stakeholders. The intrinsic factor was students' specific loci of literacy difficulty. Literacy development was shown to be the outcome of these factors, and was evidenced through students' school assessment data, their home and school literacy practices, together with observations of students' literacy skills and behaviours, and their affective stances towards literacy engagement.

This study found that literacy interventions were a common and varied phenomenon in Victoria, Australia, and identified key differences between literacy intervention provision in Catholic, Government, and Independent school sectors, which appeared to arise because of different policy and funding models. These policy influences in turn impacted on the logistical day to day business of offering interventions, resulting in differing intervention provision in each case study school. Case study participants held both sociocultural and cognitive beliefs about the locus of literacy difficulties, appropriate instruction for students

with these difficulties, and evidence of literacy development. They commonly agreed that interventions for literacy difficulties were important and should be an educational priority, though were also clear that these programs were one of many learning opportunities contributing to participating students' literacy development.

All case study students made progress in literacy through their interventions, but demonstrated more and less successful literacy trajectories, which were predicted by their assessed entry levels. Students' participation in and enjoyment of print literacy practices were shown to be constrained by their level of assessed literacy achievement. Each case study school had students with more and less successful intervention outcomes.

This thesis contributes to the field by demonstrating the ways in which literacy difficulties, and literacy development through an intervention, are complex phenomena influenced by both sociocultural and cognitive factors. The inductive model highlights the contribution of State, school, and individual factors in achieving literacy development. This model may support policy makers, school systems and schools to identify the factors enabling and constraining literacy development, in order to better tailor systems and interventions for students with literacy difficulties.

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Signature:

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List of abbreviations and acronyms

ACARA   Australian Curriculum, Assessment, and Reporting Authority

ACER   Australian Council for Educational Research

AUSVELS   Australian, Victorian Essential Learning Standards

AVAILLL   Audio-Visual Achievement in Literacy Language and Learning

BC-RLL   Building Communities: Researching Literacy Lives

CAP   Concepts About Print

CEO   Catholic Education Office

CEOM   Catholic Education Office – Melbourne

CLaSS   Children's Literacy Success Strategy

DEECD   Department of Education and Early Childhood Development

DET   Department of Education and Training

EYLP   Early Years Literacy Project

HRSW   Hearing and Recording Sounds in Words

ICSEA   Index of Community Socio-Educational Advantage

LEAP   Language Enhancement Activity Program

LPALS   Literacy Practices of Adult Learners Study

LSAL   Longitudinal Study of Adult Learning

LPQ   Literacy Practices Questionnaire

MULTILIT   Making Up Lost Time In Literacy

NAEP   National Assessment of Educational Progress

NAPLAN   National Assessment Program – Literacy and Numeracy

NHMRC   National Health and Medical Research Council

PIRLS   Progress in International Reading Literacy Study

PISA   Programme for International Student Assessment

PIAAC   Programme for the International Assessment of Adult Competencies

Prep   Preparatory (first year of compulsory schooling in Victoria).

ROL   Record of Oral Language

SPAT-R   Sutherland Phonological Awareness Test – Revised

THRASS   Teaching Handwriting, Reading, and Spelling Skills

TIULO: CP   Teachers Investigate Unequal Literacy Outcomes: Cross Generational
            Perspectives

1.   Introduction

Print literacy difficulties, and interventions for these, are commonly researched from a single theoretical perspective. Studies across the world are often oriented in cognitive or sociocultural paradigms, which view literacy development, difficulties, appropriate pedagogies, and assessment in markedly different ways. There are fewer print literacy intervention studies that conceptualise literacy development as both cognitive and social. This thesis takes an explicitly socio-cognitive view of literacy development, arguing that the locus of literacy difficulties may be located in one or both of: student, teacher, or curriculum-level literacy skill challenges; or irrelevant or culturally dissonant pedagogy or materials.

This study explores print literacy interventions and their impact on literacy development, at State, school, and individual student levels in Victorian primary education in Australia, and makes connections between findings at each of these levels. It provides an up to date overview of literacy intervention use across this State, and examines situated examples of interventions in two school contexts, in order to learn how and why particular programs are implemented, and what outcomes they elicit in these specific settings. At an individual level, it examines six students' literacy histories, learning opportunities, and literacy development to interrogate how participating in an intervention impacted on their literacy development.

This study contributes theoretically to the field of literacy intervention research by demonstrating the utility of employing a socio-cognitive lens. It contributes practically to the study of literacy difficulties and interventions by identifying key factors impacting both on schools' literacy intervention provision, and on students' literacy development through an intervention. It also contributes new knowledge to the field of literacy assessment by theorising connections between abstracted and contextualised evidence of literacy improvement.

In this chapter I outline the research context of this study, identify the research gaps it addresses, and discuss its aims and research questions. I also overview the conceptual ideas underpinning this thesis, position myself as a researcher, and provide a chapter summary.

1.1 Research context

One key task of education systems in democratic countries is to develop literate citizens, who possess and utilise print literacy—reading and writing—as one of their life-wide competencies. Much research literature suggests that print literacy proficiency is needed for participation in a developed society, yet approximately 20% of students find its acquisition difficult (Lyon & Moats, 1997; Pressley & Allington, 2014), and many continue to experience difficulties throughout their lives (Bynner & Parsons, 2001, 2007; Klenk & Kibby, 2000; Lyon & Moats, 1997). Numerous studies have found that people with print literacy difficulties are much more likely to experience poor life outcomes than those without such challenges (Bynner & Parsons, 2001, 2007; McCardle & Chharbra, 2004; Hartley & Horne, 2005; OECD, 2016). Concern over the life-wide consequences of poor print literacy has propelled a considerable research agenda into the early identification and remediation of print literacy difficulties. As with school systems in other developed countries, Victorian primary education in Australia is tasked with the expectation of improving the literacy development of its students with literacy difficulties.

Two major research paradigms are explored in this thesis. Cognitive theories define literacy as the ability to use print to a level considered functional for most people in a society. In the cognitive paradigm, literacy difficulties are understood to occur because of individual differences in literacy skills, or inadequate instruction in these skills. Cognitively oriented literacy intervention studies typically increase skill instruction at the individual or teacher level, and test the efficacy of these changes. Alternately, sociocultural theories view literacy as culturally and socially contextualised practices, and regard difficulties in its acquisition as socially located, occurring when students are taught using irrelevant or culturally discordant pedagogies and materials. Sociocultural literacy intervention studies tend to measure the effect of pedagogical shifts towards learning topics and pedagogical styles that are coherent with students' home or community life worlds and literacies.

1.2 Research gaps

In this thesis, I identify and respond to two research gaps, one theoretical and one methodological. The first is that literacy intervention research is not commonly conducted from a socio-cognitive perspective which acknowledges both social and cognitive influences on literacy development. In the literature review, I build a case for using this blended paradigm, agreeing with Davidson (2010), Perry (2012), and Purcell-Gates, Jacobson and Degenger (2004) that neither theory alone fully accounts for or provides solutions to literacy difficulties. The second gap relates to the way in which evidence of

literacy development through an intervention is gathered. Literacy assessments are commonly used to gather such evidence, and qualitative evidence is also sometimes collected. However, in my search for literacy intervention studies that gathered data on students' changing literacy practices as evidence of their literacy improvement, I did not find research using a literacy practices data collection tool—a survey or questionnaire gathering comparable information about contextualised uses of literacies—with children, only with adults.

1.3   Locating the research

This research is situated in Victoria, the second most populous state in Australia. Like the rest of Australia, the Victorian education system is comprised of three sectors—Government, Catholic, and Independent—which in 2014 catered to 68%, 22%, and 10% of primary students respectively. All sectors implement the Australian and Victorian Curricula, both of which specify learning content but do not direct pedagogical practice. Victorian primary education is comprised of seven years of schooling: a preparatory year (equivalent to kindergarten in the United States and reception in England); and years one to six. Students in Victorian primary education are aged approximately five to twelve years old.

This study focuses on print literacy interventions in Victorian primary education. Earlier studies investigating literacy and other learning difficulties (e.g. Ellis, 2005; Louden et al., 2000), and literacy and other learning interventions (e.g. Meiers, Reid, McKenzie, & Mellor, 2013; Purdie & Ellis, 2005; Rohl & Milton, 2002), showed that literacy interventions were widely offered across Australia, including Victoria. Since the publication of these studies, there has been a reduction in educational policies mandating and providing targeted funding for literacy intervention programs in Victorian schools, suggesting that up to date research about literacy intervention use in schools is required.

1.3.1   A note on terminology

I use the term 'literacy intervention' throughout this thesis. Unless otherwise stated, I use this to refer to a print literacy intervention, designed to improve students' reading and/or writing. In some cases, the research, interventions, and assessments I discuss encompass both reading and writing, though many focus specifically on reading. I use the wider term literacy for all of these interventions in acknowledgement of the interrelated nature of print literacy acquisition, noting that reading development is likely to impact on writing and vice versa.

1.3.2 Locating myself as a researcher

My motivation to research students' literacy development through and beyond interventions stems from my experiences as a primary school teacher, literacy intervention teacher, and literacy coach. Throughout these careers I have taught students who found print literacy acquisition difficult, many who improved with quality teaching and additional support, and a few with profound literacy disabilities who required significant life-wide adaptations in order to access print.

As a researcher, I am committed to learning more about, and improving understandings of literacy difficulties and interventions. I am also influenced by my prior knowledge and experiences, for example, I have studied whole language, skills based, and sociocultural approaches to literacy instruction and intervention, and observed evidence supporting each of these theoretical orientations as I taught students to read and write in classroom and intervention settings. These observations helped to form the balanced socio-cognitive theoretical position taken in this thesis. In addition, my previous research interrogated the ways in which teachers used different forms of evidence to assess students' reading achievement in relation to New Zealand's National Standards. I drew on the findings and understandings of this earlier work when exploring schools' evidence of students' literacy development in this study.

In many respects, research is a subjective process. In this thesis I have selected certain lines of enquiry, particular lenses to view phenomena through, and specific ways of analysing and presenting data. Others may have chosen different lenses and techniques, illuminating alternate aspects of literacy development through interventions in this research context.

1.4 Theory

In this thesis, I adopt a socio-cognitive stance that incorporates the possibility that print literacy difficulties may have a number of origins, and therefore may require a range of responses. I did identify some tensions with this approach. For example, the design of this study drew predominantly on qualitative methods of enquiry and analysis which are more aligned with sociocultural research paradigms, due to the subjective nature of such methods and data. In contrast, literacy interventions themselves are fundamentally a cognitive response to literacy difficulties, in that they typically intervene at the individual level, focus on pedagogy, and aim to improve students' measurable literacy skill outcomes. However, overall, a socio-cognitive theoretical lens provided a useful framing for this study. It supported the development of a broad data gathering strategy, and enabled the

identification of a number of influences on literacy intervention provision, and literacy development through an intervention.

1.5   Research aims and questions

This study set out to explore how and why literacy interventions were used in Victorian primary education, and what the outcomes of these programs were. It differs from earlier work in that it did not focus on what should be done for students with literacy difficulties (e.g. Hill & Crévola, 1999, 2005), focus only on interventions meeting certain guidelines (e.g. Meirs et al., 2013; Purdie & Ellis, 2005), or restrict its scope to programs shown to be effective in raising student achievement (e.g. Louden et al., 2000). Instead, it focused on literacy intervention use and outcomes at State, school, and individual student levels. Unlike cognitively oriented studies, this study does not evaluate the efficacy of particular programs, nor does it seek to compare the programs offered by the case study schools.

This study had both broad and specific aims. Its overarching goal was to explore how participating in a literacy intervention impacted on Victorian primary students' literacy development. I aimed to gather up to date information about whether Victorian schools commonly offered literacy interventions, and what type of programs they offered. I also sought to expand the knowledge base on how literacy interventions impact on literacy development in particular school contexts, and for specific students, as recommended by Freebody (2007) and McNaughton (2011).

I was particularly interested in how students' literacy develops in and out of school as a result of participation in an intervention. Existing studies tended to conceptualise literacy development and achievement primarily in terms of improved assessment results. I sought to expand this conceptualisation by also attending to the ways in which students used literacies in their everyday lives. Another aim was to elicit the emic experiences of those participating in and working with literacy interventions, and to gather their perceptions of these programs. I noted that most studies of literacy difficulties and literacy interventions are conducted by highly literate researchers who do not have personal experience of literacy difficulties and attempted to redress this balance a little by interviewing students, their parents, and school staff about their intervention perceptions, experiences, and beliefs.

In order to address these aims, I formed one main research question:

    -How do print literacy interventions impact on literacy development?

I developed four sub questions to explore specific areas of interest:

-What is the prevalence and scope of print literacy intervention provision in Victorian primary education settings?

-How do participating students, their parents, classroom teachers, literacy intervention teachers, and school principals perceive print literacy interventions at a) school, and b) individual levels?

-To what extent does participation in a print literacy intervention impact on students' home, school, and community literacy development?

-What are the factors impacting on a) schools' intervention implementation, and b) individuals' intervention success?

These questions guided a quantitative investigation into the use of literacy interventions in Victorian primary education, and qualitative explorations of a) how interventions were implemented in two schools, and b) the ways in which they impacted on the literacy development of six students.

1.6   Chapter outline

The current chapter has introduced the context and aims of this thesis. It has outlined the research questions, and, in the following section, will present an overview of the thesis content.

Chapter two provides a critical review of selected literature on literacy development, pedagogy, interventions, and assessment. It discusses the contributions that sociocultural, cognitive, and meaning-centred paradigms make to the field of literacy research. It argues that blended theoretical lenses have potential for investigating the complex process of literacy development through and beyond an intervention, using examples of studies informed by more than one theory as illustrations. The chapter concludes with a discussion of the ways in which literacy development through an intervention has been assessed, identifying a research gap in studies that use a measure of students' literacy practices to capture evidence of their literacy improvement.

Chapter three explicates the theoretical frame for the thesis, identifying how sociocultural and cognitive theories were utilised when developing and implementing this study. It describes the nested, mixed methods design of this study, which enabled data to be collected at State, school, and individual levels. This chapter outlines the methodological approaches and processes used, together with the data gathering tools and procedures, the samples, case study sites, and participants, and the analytic tools and processes. It introduces the analytical, situated model derived from the data analysis, which defines key

factors impacting both on schools' provision and implementation of literacy interventions, and on students' literacy development through their participation in these interventions.

Chapter four presents the State and school level data. The State level quantitative data identified that literacy interventions were commonly offered across Victorian primary education settings, and found school sector type to be the major variable associated with whether or not schools offered a literacy intervention. A small questionnaire data set on nine schools' program offerings is briefly summarised, then case study narratives of literacy intervention implementation in one Government and one Catholic school in Victoria are related. These narratives provide situated examples of how and why particular interventions were implemented in these settings. They also highlight differences in policies and funding for literacy interventions between the Catholic and Government school sectors in Victoria, and identify these as key factors impacting on literacy intervention provision in each setting.

Chapter five discusses the State and school level findings in relation to international and Australian research literature on literacy interventions. It examines the online data scan findings, appraising the interventions offered in Victorian schools in relation to literature on effective print literacy remediation, and uses research and policy to discuss the relationships identified in this data set. The subsequent discussion is organised thematically using the six factors comprising the situated model to analyse the case study schools' data. This discussion examines how the outside influences of policy and funding in turn impacted on the day to day logistics of implementing interventions, and on the expertise and learning programs offered in the school.

Chapter six presents the six case study student narratives, using data from the student, parent, teacher, and intervention teacher interviews, and students' school assessment and literacy practices data. These narratives detail each child's specific difficulties, their classroom, intervention, and home learning opportunities, and describe their literacy development using four dimensions: school achievement data; affective data; literacy practices data; and participants' observations of their literacy skills and behaviours. The case narratives highlight the specificity of each student's case, their literacy trajectory through and beyond their intervention, and the particular combination of interacting factors that influenced it. They illustrate the diverse literacy learning experiences of these six students, and show literacy development to be a complex process.

Chapter seven discusses the case study students' literacy difficulties and development in relation to the research literature. It highlights the marked differences between students' specific literacy difficulties on entry to their interventions, and identifies these as a major factor influencing their overall literacy achievement through and beyond their programs. Students' literacy achievement is discussed using both cognitive and sociocultural measures, and a connection is theorised between students' improvements in formal assessment results and increases in their contextualised uses of literacies in the classroom and at home. Intervention learning is identified as but one of a number of learning opportunities and other influences on students' literacy development. This chapter shows that classroom and home learning, expertise, and relationships were also major factors mediating students' literacy development. The second part of this discussion chapter brings together findings from across the State, school, and student levels of the thesis, in order to answer the main research question. It discusses how literacy interventions impacted on literacy development only in tandem with a range of other learning opportunities and wider factors. Furthermore, it problematizes the understanding that the purpose of interventions is to catch students up to year level expectations, proposing instead that these programs support literacy improvement.

Chapter eight summarises key findings from across the thesis. A discussion of the implications of these findings is linked to recommendations for future research, policy, and practice. Limitations of the study are also discussed.

This chapter has provided an overview of the research context in which this study is situated, and identified its aims and research questions. The following chapter offers a critical review of selected research literature on literacy development, literacy interventions, and the assessment of literacy improvement through an intervention.

2.   Review of the literature

Metaphors for literacy do not stand on their own. They are part of a particular view on literacy that has implications for how we think about learners, how we think about what they ought to learn and how this could be achieved (Papen, 2000, p.12).

2.1   Introduction

The aim of this chapter is to provide a critical review of common orientations to, and practices in, literacy intervention research. It outlines two prominent theoretical orientations to literacy and one commonly used pedagogical approach to literacy instruction, and discusses the contribution of these paradigms to the fields of print literacy difficulties and interventions. This chapter shows the ways in which a paradigm incorporating more than one theoretical lens might contribute to the field of literacy intervention research through enabling more nuanced understandings of how and why particular pedagogical approaches and interventions do and do not contribute to print literacy improvement in particular communities, schools, and for specific individuals. Whilst research on literacy interventions and their outcomes is common, I identify theoretical and methodological gaps in how the phenomena of literacy development, difficulties, and remediation are understood, researched, and presented.

I begin this literature review with an overview of sociocultural and cognitivist theoretical beliefs about literacy. I show how these paradigms define literacy in significantly different ways, resulting in divergent beliefs about literacy acquisition, assessment, difficulties, and responses to difficulties. I also examine meaning-centred theories and pedagogies, discussing their influence on contemporary literacy instruction and identifying their connections to, and differences from sociocultural and cognitive approaches. I discuss instructional approaches and research studies that are grounded in and illustrative of each of these orientations, and also highlight instances of ontological flexibility in which programs and researchers located primarily in one paradigm have also drawn from other theories and practices.

I then synthesise and critique examples of international and Australian research on responses to print literacy difficulties in which the research design suggests theoretical and/or methodological flexibility. Finally, I consider the ways in which researchers have gathered evidence of students' literacy development and achievement, and offer a critique of research studies conceptualising literacy development using evidence of sociocultural (predominantly qualitative), and cognitive (predominantly quantitative) outcomes.

For the purposes of this study, I consider print literacy—reading and writing—as a particular case within the broader spectrum of literacies. I suggest that investigating print literacy difficulties—including responses to these and methods for assessing literacy change—requires a broad, rather than a unitary theoretical lens. In this literature review I highlight the relative paucity of literacy intervention research that takes a deliberately socio-cognitive stance. Such a stance incorporates the possibility of both within child— primarily cognitivist, and within school and society—primarily sociocultural, origins of literacy difficulties. I suggest that this socio-cognitive understanding can be extended to the outcomes of literacy interventions, to incorporate changes in both literacy skills and contextualised practices as evidence of progress and success.

2.2   What is literacy?

Literacy is a contested and changing concept, with differing definitions across time and space. In this thesis, two major research perspectives—sociocultural and cognitive—are identified, explored and utilised, which can be broadly framed by Street's (2003) concepts of literacy as autonomous or ideological. Street theorises that literacies can be ideological, variable practices grounded in particular sociocultural contexts, as illustrated by Barton and Hamilton's (2000) assertion that: "literacy is best understood as a set of social practices; these can be inferred from events that are mediated by written texts" (p.8). Street also proposes literacy can be alternately understood as an autonomous, universal set of measurable, cognitive skills, as suggested by the 1958 United Nations Educational, Scientific and Cultural Organisation (UNESECO) statement (as cited in UNESCO, 2005) that: "A person is literate/illiterate who can/cannot with understanding both read and write a short simple statement on his [or her] everyday life" (p. 162). The latter, autonomous concept relates specifically to print literacy—the ability to understand and use print, whereas in the former ideological definition, literacy is a broader concept which includes print literacy as one of many socially situated practices. These broad conceptual differences in the framing of what literacy is foreground the theoretical divide between cognitivist and socioculturally oriented literacy scholars.

In this thesis I draw on sociocultural understandings of literacies as multiple and diverse (Barton & Hamilton, 2000; Heath,1983; Street; 2003), grounded in social contexts (Barton, Hamilton & Ivanič, 2000; Besnier, 1995; Heath, 1983) and evidenced through literacy practices and events—which are examples of what people do with literacy (Barton & Hamilton, 2000). In contrast with many sociocultural scholars, I also draw from cognitive theories explaining developmental processes of and difficulties in print literacy acquisition

(e.g. Cunningham & Stanovich, 1997; Moats, 1999). I contest Street's view that ideological and autonomous literacies are opposed, suggesting that every literacy event draws on both transferrable skills and context specific understandings. Like Purcell-Gates et al. (2004), I maintain that print literacies form a unique case within the broader field of literacies and are worthy of particular consideration, as unlike oral, arts based, and some digital communications, print literacies are not necessarily acquired in every day social contexts, but tend to be developed through formal education (Center, 2005; Moats, 1999). In addition, print literacies are difficult to acquire for approximately 20% of the population (Lyon & Moats, 1997; Pressley & Allington, 2014), pose particular difficulties in deep orthographic languages including English (Paulesu et al., 2001; Seymour, Aro, & Erskine, 2003), are socially dominant, valued, and privileged (Street, 1984), and are connected with educational success and work opportunities (McCardle & Chharbra, 2004; RAND Reading Study Group, 2002; Snow, Burns, & Griffin, 1998). Like Freebody and Luke (1990) and Purcell-Gates et al. (2004), I locate print literacy skills and development as one component within a wider sociocultural definition of literacies, agreeing that print competencies are necessary, but not sufficient for life-wide literacy.

Australia's national curriculum outlines a blended conceptualisation of literacy as incorporating both skills and contextualised uses. For example the Australian Curriculum, Assessment, and Reporting Authority (ACARA) (n.d.a[1]) states that "students become literate as they develop the knowledge, skills and dispositions to interpret and use language confidently for learning and communicating in and out of school and for participating effectively in society", reflecting an ideological and sociocultural framing of literacies as contextualised and purposeful. The curriculum also contains multiple objectives for the mastery of specific print literacy skills, suggesting that autonomous, cognitive understandings of literacy development are also valued. This blended view of literacy differs theoretically from much contemporary literacy research, which tends to be grounded primarily in either a sociocultural or a cognitive definition of literacy. In the following sections I will discuss how these definitions shape particular kinds of pedagogies, interventions, and research studies on literacy acquisition and difficulties, and highlight the limitations of engaging in literacy intervention research from a singular theoretical lens.

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[1] In this thesis citations for recent curriculum and policy information often refer to national and state government, and Catholic education websites, as these are where current guidelines, policies, and curriculum updates are disseminated. It is noted that the information provided on these sources is subject to change.

2.3   Literacy acquisition, pedagogy, and difficulties

Scholarly, educational, and popular beliefs about literacy development are grounded in particular definitions of literacy. These include beliefs and ideas about how literacy is acquired, how it should be taught and assessed, what causes literacy difficulties, and how these should be addressed. This section describes perspectives offered by sociocultural and cognitive scholars, and discusses how these are instantiated in classroom and intervention pedagogies. Whilst each of these paradigms is not in itself unitary—rather encompassing a number of more specific theories and concepts—general overarching principles common to each are discussed. This section discusses research studies illustrating the features of sociocultural and cognitive literacy paradigms. It also includes a critique of some studies and programs that do not fit easily with either, in order to problematize the utility of a single theoretical lens for designing literacy programs and research studies.

2.3.1   A sociocultural perspective

A broad sociocultural definition of literacy as socially situated practices occurring in everyday contexts leads to an understanding that literacy acquisition occurs through engagement in a range of home, school, work, and community practices across the lifespan. This expansive definition of literacy as purposeful things that people do to communicate has implications for schools' pedagogical choices. Firstly, school is positioned as one of many learning contexts, and the primacy of teachers as bearers of knowledge within closed classroom walls is challenged (Luke, 2008; New London Group, 1990). Instead, sociocultural theorists encourage a blurring of school, home and community worlds, with opportunities for teaching by a range of experts, and learning in a range of contexts (Luke, 2008; Moll, Amanti, Neff, & Gonzalez, 1992). In addition, curriculum content is grounded in students' life worlds, funds of knowledge, and home and community literacies (Au 1980; Heath, 1983; Luke, 2008; Moje & Hinchman, 2004). Print literacy is positioned as one of many literacies, and is learned through instruction based on students' community and/or preferred literacies—for example, by drawing on a community's collaborative discourse patterns (Heath, 1983), or a group's "culturally familiar artefacts and experiences" (McNaughton, 2011, p.163). Texts used for instruction may include multimodal, digital, and informal paper texts as well as books (New London Group, 2000). These texts may be selected due to their cultural significance (Luke, 2008) or because of links to holistic and integrated learning topics (Kalantzis & Cope, 2012; Luke et al., 2003). The technical, skills-based processes of reading print are downplayed

and instead reading the world (Freire, 2000) through critical and higher level thinking is emphasised.

Sociocultural researchers often focus on people's diverse uses of literacies, for example, by using ethnographic methods to explore literacies within social contexts, thereby demonstrating cultural and social diversity in literacy practices and events (Barton & Hamilton, 2000; Heath, 2008; Pahl, 2014; Scribner & Cole, 1981). The emphasis of such studies tends to be on people's literacy practices rather than their print literacy development and achievement. Ethnographic literacies research has primarily been conducted in out-of-school settings, though some have used ethnographic and observational methods to explore and compare students' in-school and out-of-school literacies (e.g. Heath, 1983; Rennie, 2009).

Within school contexts—in which some measure of student development and achievement is usually mandated—sociocultural pedagogies employ broad and contextualised approaches to assessment, such as observations of students as they engage in literacy tasks, portfolios of literacy events, choices of assessment tasks, and self and peer modes of assessment (Afferbach, 2007; Kalantzis & Cope, 2012). Standardized testing is discouraged by some sociocultural scholars because of its potential to constrain the pedagogies used and content taught, and to privilege narrow sets of skills and particular kinds of knowledge that ignore students' rich and broad literate practices (Freebody & Wyatt-Smith, 2004; Luke, 2010; Street, 2003).

Sociocultural theorists rationalise that as literacies are social and embedded in various contexts, difficulties in their acquisition originate from extrinsic social and political roots. To some sociocultural scholars, particularly those focusing on the literacies of adults, literacy difficulties are a social and political construct arising from narrow conceptualisations of literacy as a set of print-based skills. For example, Kress (2003) contends that a focus on print is outdated in a multimodal world, arguing that print literacies will decrease in importance with the advent of digital technologies. Street (1990, cited in Hartley, 1994) questions the need for all people to acquire particular levels of print literacy competence, regarding these skills as a community rather than an individual commodity. He explains that individuals who lack print literacy proficiency are not disadvantaged when community interchange of knowledge and skills provides literacy brokerage. Freebody (2007) takes a more nuanced stance, acknowledging that some people experience significant literacy difficulties, and clarifying that his work does not engage with the literacy development or learning needs of this population.

Other scholars (e.g. Heath, 1983; Luke; 2008; Rennie, 2006) have engaged more specifically with students' acquisition of print literacies, offering explanations for why minority and marginalised groups are over-represented in population statistics of students underperforming in print literacy both in Australia and internationally. One explanation for this achievement gap is a home deficit theory, which suggests that some parents and community groups do not adequately prepare their children for school, resulting in differential achievement between groups. This theory is supported by international testing data that shows connections between parents' cultural capital and education levels, and their children's literacy achievement (Mullis, Martin, Foy, & Drucker, 2012; OECD, 2016). Despite providing an extrinsic—or within society—explanation for differential literacy achievement, a home deficit theory is rejected by sociocultural theorists and researchers who instead identify a wider sociocultural origin for this achievement disparity, contending that it originates in the power structures in society, to which economics, educational governance, and teacher attitudes contribute. A seminal study demonstrating the ways in which valued school knowledge and pedagogies can play out on the education of minority and marginalised students is Heath's (1983) ethnographic study observing literacy practices in three communities. Heath demonstrates that students from minority backgrounds have rich, complex and meaningful literate home and community lives. She shows how classroom language and social expectations are more familiar to students from middle and upper class backgrounds, which enable these students to access and relate to the world of the classroom with ease. Conversely, she demonstrates that students from minority backgrounds are likely to attend schools that use unfamiliar language, for unfamiliar purposes, and espouse unfamiliar customs, beliefs and values.

Within this sociocultural conceptualisation of dissonance between home and school are two slightly different interpretations: Heath's work suggests that some groups of students find it difficult to access the world of school, and that students require explicit instruction in the discourses of school in order to understand its processes; whereas Luke (2008) proposes that students reject literacy when it is taught through inappropriate pedagogies, implying an element of agency in non-participation in schooled and dominant literacies. Despite this subtle distinction, sociocultural literacy research typically does not separate difficulties in literacy skills acquisition from a lack of interest or poor engagement in schooled or print literacy practices, as sociocultural theory locates the origin of these barriers to learning in the social realm. In this paradigm, societal changes in valued literacies and the ways that these are taught in schools are considered appropriate ways to

work with both cognitive and affective difficulties. Sociocultural theorists and researchers (e.g. Au, 2011; Cremin, Mottram, Collins, Powell, & Drury, 2015; Luke, 2008; McNaughton, Lai, MacDonald, & Farry, 2004; Purcell-Gates et al., 2004; Rennie, 2010) commonly regard it as schools' and teachers' responsibility to become more engaged with the home lives and worlds of the students they teach, in order to make the school environment more conducive to student learning.

The enactment of these changes in valued content, pedagogies, and teacher beliefs and attitudes may be brought about through interventions at system, school, and teacher levels. One example of such an intervention is Cremin et al.'s (2015) *Building Communities: Researching Literacy Lives* (*BC:RLL*), a qualitative project framed by sociocultural and literacy-as-social-practice theories. This project aimed: to expand English teachers' understandings of their students' home and community literacies; to revise existing deficit theories pertaining to their students' abilities; and to use teachers' new-found knowledge both to design more appropriate learning experiences for students, and to connect in more meaningful ways with families. In line with sociocultural pedagogical beliefs, *BC:RLL* did not target students' print literacy improvement or privilege this means of communication. The *BC:RLL* teachers visited students at home, reporting surprise at their competence with digital, non-formal, and non-English texts, and gaining knowledge about their cultural and ethnic backgrounds. The project altered teachers' beliefs and assumptions about the students they taught, enabling many to consider literacies as multiple, and to draw on the interests and passions of their students and integrate these into classroom learning. The *BC-RLL* is representative of much sociocultural literacy research in that it was situated in a particular context, worked at the teacher level, aimed to explore and discover, and used ethnographic means of data collection.

Sociocultural researchers are typically critical of remedial or intervention programs for individuals or groups with literacy difficulties, arguing that these ignore the varied nature of literacies, and instead focus on narrow and decontextualized skill instruction that does not transfer well to the classroom or wider contexts (Lankshear & Knobel, 1998). Barnes (1996) and Woods and Henderson (2002) argue that the prescriptive nature of interventions does not provide adequate flexibility to work with students' interests, funds of knowledge, or preferred interaction patterns. Moreover, some sociocultural researchers contend that interventions locate failure to learn to read within the individual, placing the responsibility for the literacy difficulty on the child rather than the educational system (Dudley-Marling & Murphy, 1997). Others have argued that interventions maintain students' status as poor

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readers (Tancock, 1996) and have limited utility in achieving long-term improvement (Freebody, 1990; Hiebert, 1994). Because of these conflicts between sociocultural understandings of literacies and the practice of intervening at the student level, there are few studies exploring the literacy development of students with identified literacy difficulties in response to an intervention, that are thoroughly positioned in sociocultural theory.

One such study is Kamler and Comber's (2005) *Teachers Investigate Unequal Literacy Outcomes: Cross-generational Perspectives* (*TIULO:CP*), a carefully theorised project with ten Australian teachers, each of whom was working with one or more students who were achieving at levels well below their peers in literacy. The aim of Kamler and Comber's study was to support teachers to develop responsive curricula that built on and extended students' home and community literacies, and to demonstrate the ways in which such pedagogical change could improve and strengthen students' literacies. Their focus students included those disengaged with school as well as students with diagnosed cognitive differences such as dyslexia; however, there was an emphasis on the students' strengths rather than perceived deficits. Like the design of the *BC:RLL*, Kamler and Comber engaged teachers as co-researchers in exploring their literacy pedagogies. They also matched new and experienced teachers to collaborate in drawing on students' funds of knowledge and finding meaningful connections to literacy experiences. Together, the pairs of teachers designed pedagogies based on students' interests and multiliteracies. Teachers gathered qualitative data over the course of the study, including observations of students in class and artefacts of their literacy events, and these data were used to identify improvements in students' engagement in, and uses of, literacies. This study is of note as it is one of few aimed at improving the teaching and learning of students experiencing literacy difficulties that follows a consistent sociocultural paradigm both theoretically and methodologically. In particular, valued outcomes are described in terms of what students could do with literacies, rather than as improvements on assessment measures. The study illustrates what may be possible in terms of engaging students and connecting them to literacies, and given the focus on extending teachers' pedagogical repertoires, it is likely that these teachers could continue to engage diverse learners in the future. Yet this study is founded on the understanding that these students' literacy challenges were pedagogically located, and so it does not engage with their specific individual differences or difficulties. In addition, the sociocultural emphasis on students' collective meaning-making and the contextualised evidence of students' literacy change does not provide evidence of whether

their improved engagement and new learning were sufficiently robust to transfer to new text types and content areas, in more independent and less scaffolded contexts. The ideological and contextualised nature of such sociocultural literacy intervention research is a strength in that it enables an understanding of students' literacy development within their specific sociocultural context. It can also be a weakness, as the contextualised and situated pedagogical practices and data make comparisons with other kinds of outcomes, and generalisations to wider populations, difficult.

As discussed in this section, sociocultural research focuses primarily on the extrinsic—such as pedagogical, social, economic, and political—factors impacting on literacies acquisition. Less attention is given to intrinsic factors such as cognitive differences or difficulties impacting on individuals' print literacy development, and aside from pedagogies designed to engage marginalised students, the sociocultural paradigm offer little in the way of instructional guidance for individuals with print literacy difficulties (Davidson, 2010; Perry, 2012; Purcell-Gates et al., 2004). One study illustrating the ways in which sociocultural theory can privilege the political and social over the individual in literacy intervention research is Dudley-Marling and Murphy's (1997) political critique of Reading Recovery (an intervention that is discussed in more detail later in this chapter). These authors contend that Reading Recovery locates literacy failure within the individual, and make salient points about the limited potential of such a program to change socioeconomic inequities between more and less advantaged individuals and schools. They argue that interventions allow schools to appear benevolent without improving wider classroom and school practices to empower diverse students. Dudley-Marling and Murphy define literacy as a social practice, and, from this perspective argue that the Reading Recovery program inaccurately portrays literacy as a technical, skills-based process. Their definition of literacy does not acknowledge that reading print requires technical skills, as Purcell-Gates et al.'s (2004) and Freebody and Luke's (1990) definitions do. Dudley-Marling and Murphy highlight concerns with Reading Recovery at political and societal levels, but do not engage with individual differences in literacy acquisition or the instructional needs of individuals with such differences, nor do they suggest alternate approaches to interventions. Their critique of Reading Recovery shows how a strong sociocultural lens can frame the phenomena of interventions at systemic levels, and also demonstrates how this lens can overlook the individual and their needs.

This section has discussed the ways in which sociocultural theory offers a broad and diverse perspective on literacy. It has described how this paradigm provides a framework

for identifying and understanding the literacy practices valued in different homes and communities, and for engaging diverse students through culturally relevant pedagogies. Research literature has been used to show how a sociocultural lens in literacy intervention research facilitates exploration of schools' and teachers' attitudinal and pedagogical change, with the potential to improve the educational experiences of marginalised social and cultural groups (e.g. Cremin et al., 2015; Kamler & Comber, 2005). Nonetheless, in such studies the emphasis on learning in social contexts and meaningful assessment means that information about students' individual and independent print literacy capabilities tends not to be a valued data source. In this critique, I do not suggest that sociocultural theory is unhelpful in understanding literacies acquisition and use; rather I agree with Purcell-Gates et al. (2009), Perry (2012), and Davidson (2010) that attention to individual differences and needs is also required.

2.3.2   A cognitive perspective

In comparison with the broad sociocultural conceptualisation of literacy, cognitive and psychological perspectives on literacy relate to a more specific definition of literacy as the ability to use print as a resource to fulfil school, work, and community tasks. This section discusses cognitive theories' contribution to the fields of print literacy—particularly reading—acquisition, pedagogy, and remediation.

Cognitive scholars commonly view print literacy acquisition as a developmental process beginning with language acquisition, and moving through early, constrained skills (Paris, 2005) such as phonological awareness and alphabet knowledge. The development of unconstrained skills (Paris, 2005)—including reading vocabulary and comprehension— begins in tandem with early constrained skills, and continues over the course of the lifespan. Explicit and systematic reading instruction is a particular focus of cognitive scholars who commonly agree that formal reading instruction begins with pre-print experiences such as developing phonological awareness, and continues with the systematic teaching of letter-sound correspondences. Early instruction emphasises the acquisition of increasingly efficient decoding skills in the first few years of school, whilst vocabulary development, comprehension, reading fluency, and genre types are taught throughout the school years (Adams, 1994; Snow et al., 1998). In cognitively oriented reading instruction, skills may be isolated from their context or from the overall act of reading or writing for analysis or teaching, and this is a key difference to the contextualised emphases of sociocultural and meaning-centred approaches. However, even the strongest proponents of explicit skill instruction are clear that students should also have multiple opportunities to

practise and improve their skills in the context of reading and writing real and purposeful texts (Adams, 1994; Moats, 1999).

Some cognitivists believe print literacy skills develop hierarchically, and advocate that students should grasp these early skills through explicit phonological and phonics instruction before being introduced to carefully levelled, decodable texts—which are designed to reinforce taught skills without the confusions of multiple irregular words (e.g. Moats, 1999). Others propose that constrained and unconstrained skills can develop simultaneously and in reciprocity (e.g. Cunningham & Stanovich, 1997), and recommend that early constrained skills be systematically introduced alongside reading and writing short texts, providing opportunities for both explicit and embedded phonics instruction (e.g. Johnston & Watson, 2005). Cognitivist literacy researchers commonly agree that students should use grapho-phonic, word level information—or 'sounding out'—as their initial strategy when decoding unknown words (e.g. Buckingham, Wheldall, & Beaman-Wheldall, 2013; Greaney, 2011; Nicholson, Bailey, & McArthur, 1991; Perfetti,Van Dyke, & Hart, 2001; Rose, 2006, 2009; Tunmer & Chapman, 2002, 2004). This is a key point of difference between cognitive and meaning-centred pedagogies, as the latter paradigm advocates that equal instructional emphasis is given to three kinds of information or cueing systems: the meaning of the text; the syntactic structure of the sentence; and the grapho-phonic information in the word (Emmitt, Hornsby, & Wilson, 2013; Routman, 1994).

The cognitivist stance on explicit reading instruction has been supported in reports appraising the teaching of reading across the world: in the United States—*Report of the National Reading Panel* (National Reading Panel, 2000) and *Preventing Reading Difficulties in Young Children* (Snow et al., 1998); in Australia—*National Inquiry into the Teaching of Literacy* (2005); and in England—*Independent Review of the Teaching of Early Reading* (Rose, 2006). Additionally, this stance is apparent in an English review of the teaching of students with literacy difficulties—*Identifying and teaching children and young people with dyslexia and learning difficulties* (Rose, 2009). These reports commonly found that explicit and systematic instruction in phonological awareness, phonics, fluency, vocabulary, and comprehension strategies provided students with solid opportunities for reading success. The majority of the research studies cited in these international reports were cognitively oriented, employing research methodologies such as pre and post-testing of participants' literacy skills and abilities, and the manipulation of variables to test the efficacy of particular kinds of instruction. The 'gold standard' of cognitive reading research uses scientific research principles, randomising students to

treatment conditions, and including control group/s (Deschler, Hock, Ihle, & Mark, 2011; Slavin, 2002). However, such research designs are enormously difficult to execute in educational research, as researchers and schools usually need to work with existing school and classroom groupings, and participating schools and parents are seldom willing for their students to be monitored in a control group whilst others participate in programs designed to improve their learning (McNaughton, 2011). The emphasis on cognitive, scientific research in these international reports drew criticism from some scholars (e.g. Cambourne, 2006; Garan, 2001; Gee, 1999) who regarded the theoretical and methodological scope as limited. The extent to which recommendations from these reports have been followed has differed between schools, countries, and teachers. For example, in England, the Rose reports (2006, 2009) provided support for the national curriculum shift from whole language approaches in which skills were acquired implicitly through engagement in literacy rich activities, to programs which incorporated explicit instruction in literacy skills. National shifts in literacy pedagogies are more difficult to identify in the United States due to its state-governed education system, and similarly, Australia's states and territories each offered their own curricula until recently.

Formal assessments play a prominent role in cognitivist reading research and pedagogy, and are used to identify areas of difficulty, to consider achievement in relation to standards or norms, and to track progress over time. They include the following: skill assessments such as phonological, word reading, and letter recognition tests; oral and silent measures of reading prosody and accuracy; comprehension assessments; and broader IQ tests. Reading assessments for younger students are usually delivered in a one-to-one setting with a teacher, as they are not sufficiently independent readers to tackle assessments by themselves, whereas assessments for older students are more likely to be taken independently in a standardized environment. The autonomous, cognitivist stance that literacy consists of skills that can be quantified and measured is evident in national assessment regimes: for example, in Australia's National Assessment Program: Literacy and Numeracy (NAPLAN[2]) (ACARA, n.d.b) and the United States' National Assessment of Educational Progress (NAEP) (National Center for Educational Statistics, n.d.). This conceptualisation of literacy is also apparent in international comparison measures: for primary students—Progress in International Reading Literacy Study (PIRLS) (ACER, n.d.a); secondary students—Programme for International Student Assessment (PISA)

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[2] NAPLAN is Australia's annual national assessment for school students. The program assesses students in years three, five, seven, and nine in reading, writing, language conventions, and numeracy. NAPLAN data are reported to schools and parents, and schools' achievement summaries are publicised on the My School website.

(ACER, n.d. b); and adults—Programme for the International Assessment of Adult Competencies (PIAAC) (OECD, n.d.).

In the cognitive paradigm, reading difficulties are understood to occur either from inadequate or inappropriate literacy experiences or instruction (e.g. Buckingham, 2013; Tunmer & Chapman, 2002) or from intrinsic[3] differences exhibited by individual students (e.g. Stanovich, 1986). Cognitive reading difficulties research includes: extrinsic studies evaluating classroom programs, curricula, and instructional techniques; and intrinsic studies investigating the cognitive profiles and literacy skills of students. Both types of cognitive reading research aim to diagnose the specific locus of the literacy difficulty, and to identify appropriate remediation. The following sections discuss these loci of, and responses to, literacy difficulties.

2.3.2.1 Extrinsic loci and responses

There are three interrelated extrinsic loci of literacy difficulties, which commonly hold inadequate exposure to print literacy instruction and/or insufficient home learning opportunities as causes of students' difficulties. These are located at school system, classroom, and community or home levels.

One proposed locus is that the emphasis of reading pedagogy mandated by national and state curricula and taught in teacher training programs, is inadequate or inappropriate. Some researchers (e.g. Buckingham et al., 2013; Tunmer, Chapman, & Prochnow, 2006) argue that the whole language emphasis of meaning over skills in the 1980s and 1990s posed particular difficulties for children from poorer and minority backgrounds, causing high proportions of students within these groups to experience literacy difficulties. Scholars taking this position maintain that more students would meet year level expectations for reading if cognitivist, code-focused recommendations for instruction were followed (Buckingham et al., 2013; Chapman & Tunmer, 2003; Flesch, 1966; Moats, 1999). Cognitive researchers have tested this pedagogical hypothesis by measuring the impact of altering curriculum materials and pedagogies to include or increase explicit cognitive skills instruction. A well-known example is the Clackmannanshire study (Johnston & Watson, 2005), which is one of the few longitudinal studies to test the impact of early explicit phonics instruction on students' literacy acquisition throughout their primary school careers. Johnston and Watson's research in the high poverty area of Clackmannanshire in Scotland found that an explicit, systematic phonics approach in early

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[3] Locating differences in the individual is commonly described as a medical model. I have not used the term medical as I reserve it for the discussion of students with health and medical needs impacting on their literacy acquisition.

reading instruction yielded significantly higher than average student achievement data in decoding and spelling, and slightly higher than average data in reading comprehension, and that accelerated learning was sustained throughout students' primary school careers. More recently, Machin, McNally, and Viarengo's (2016) large scale English study measured the effects of early explicit phonics instruction on students' reading achievement at ages five, seven, and 11. These authors found that early participation in such instruction resulted in higher reading achievement at age 11 for students from disadvantaged backgrounds (for example, receiving free school meals or having a language background other than English), but did not have a measurable long term effect on the reading achievement of other students. They concluded that early synthetic phonics instruction was a cost effective method for improving the literacy learning of students from disadvantaged backgrounds.

No Australian studies were found that involved large-scale school or system wide experimental research to investigate the effects of increased cognitively oriented pedagogy on students' achievement, and this appears evident in the *National Inquiry into the Teaching of Literacy* (2005), which had to rely on international studies in making the case for more direct and explicit early reading instruction in Australian schools. Some smaller scale studies were found, for example, Konza and Main's (2015) recent study, in which the impact of professional learning in targeted early reading skills was measured in terms of increases in both teacher knowledge and students' literacy skill achievement. Their data showed increased learning in teachers' phonological knowledge, and accelerated learning in the assessed domains for students in most of the participating schools. An increase in the prevalence of cognitive pedagogy is evident in instructional policies and practices in some Australian regions and schools, for example, in the use of Direct Instruction programs—underpinned by behaviourist and cognitivist pedagogies—in schools in the Cape York Aboriginal Australian Academy Initiative (ACER, 2013).

A second and related extrinsic cause of students' literacy difficulties, according to much existing literature, is inadequate or poor quality teaching on the part of individual teachers. The importance of quality teaching has long been shown to make a significant difference to student achievement (e.g. Allington & McGill-Franzen, 2000; Clay, 1993; Hattie, 2013; Hill, Comber, Louden, Rivalland, & Reid, 2002; Louden et al., 2005; Torgesen, 2004), with many researchers (e.g. Allington & McGill-Franzen, 2000; Hattie, 2003; Louden et al., 2005) contending that teacher quality and effectiveness are the most important variables in student learning. To improve literacy instruction at the teacher level, policy and curriculum reforms and professional development programs may be implemented as

extrinsic methods of intervening, in order to improve the literacy outcomes of students. System wide programs emphasising quality classroom teaching and learning were popular in Victoria until recently (Czislowski-McKenna, Cumming, Wyatt-Smith, & Elkins, 2006; Wyatt-Smith & Gunn, 2007), though were grounded in meaning-centred rather than cognitive theories of literacy acquisition. Two specific projects: the Early Years Literacy Project (EYLP) in Government schools (Hill & Crévola, 1999); and the Children's Literacy Success Strategy (CLaSS) in Catholic schools (Hill & Crévola, 1999, 2005) applied a tiered approach to literacy improvement. This conceptualises instruction and intervention as a three-tier or wave process: beginning with quality initial instruction for all students as the first wave; providing early intervention for students who do not make adequate progress as the second wave; and continuing with long term intervention for students who exhibit persistent literacy difficulties as the third wave. The EYLP and CLaSS, along with the middle years *Learning to Read: Reading to Learn* (Culican, 2004), focused on whole school improvement and enhanced classroom pedagogies through the prioritising of professional learning. Furthermore, they emphasised the key role of the teacher in developing students' literacy, and advocated pedagogical practices emphasising the co-constructed processes of making meaning from texts.

A third extrinsic deficit theory attributes students' literacy difficulties to a home deficit, or lack of literate cultural capital (Tunmer et al., 2006), with statistics linking poor literacy outcomes with lower than average levels of parental education, language experience, access to books, and literacy practices in the home (Australian Bureau of Statistics, 2012; Mullis et al., 2012; OECD, 2016). As noted earlier, while the concept of a home deficit is an extrinsic and social cause of literacy difficulties, it is essentially cognitivist in that it assumes valued literacy knowledge and resources are universal forms of social capital, sitting in opposition to the sociocultural perspective that literacies are diverse and differ between cultural and social groups. Cognitively oriented interventions based on a home deficit theory might take the form of parental education programs (Swain & Brooks, 2014), library campaigns (State Library of Victoria, 2015), and homework clubs (Bevin & Goulding, 1999).

2.3.2.2 Intrinsic loci and responses
The cognitive paradigm also focuses on intrinsic or student-specific loci, which include medical and sensory difficulties, broad cognitive difficulties and literacy-specific cognitive difficulties. Cognitive reading research suggests that many students exhibiting literacy difficulties will improve with additional targeted instruction (Torgesen et al., 1999;

Vellutio, Scanlon, Sipay, & Small, 1996), and that a small proportion will experience long-term or permanent literacy learning difficulties and/or disabilities (Al Otaiba & Fuchs, 2002; Catts, Compton, Tomblin, & Bridges, 2012; Pressley & Allington, 2014; Vellutio et al., 1996). This section briefly discusses medical and broad cognitive difficulties impacting on students' literacy learning. It then describes and critiques cognitive understandings of, and responses to, more and less severe literacy-specific cognitive difficulties.

At a medical or health level, sensory issues which will impact on school learning such as students' hearing and vision are commonly checked through routine pre-school or school screening programs (e.g. American Association for Pediatric Ophthalmology and Strabismus, n.d.; Australian Government Department of Health, n.d.). Typically, such issues are treated either before or on school entry. For example, all states and territories in Australia provided free hearing and vision screening at the time this research was conducted (Australian Government Department of Health, n.d.a), and social services provided financial support for lower income families to purchase prescription lenses (Department of Human Services, 2012; Australian Government Department of Health, n.d.b). In Victoria, visiting specialist teachers currently provide advice and support for students with ongoing sensory and health needs, and their parents, teachers and schools (DET, 2016). Some health needs particular to individual children may be attributable to wider social issues—for example, poverty and poor and overcrowded housing increase the risk for otitis media (Coates, Morris, Leach, & Couzos, 2002), a condition impacting on students' ability to distinguish sounds, which in turn affects their later print literacy development (Winskel, 2006).

Approximately 20% of students, despite receiving instructional opportunities, exhibit cognitive differences and difficulties which impact on their literacy development (Pressley & Allington, 2014). Moderately accurate school entry predictors for which students will experience such difficulties include the generalised cognitive domains of working memory, language proficiency, and rapid naming (Snow et al., 1998; Scarborough, 1998), and the literacy specific skills of letter knowledge and phonological awareness (Snow et al., 1998). A goal of cognitive reading research has been to identify a core literacy skill deficit common to students with literacy difficulties, and many researchers agree that poor phonological skills are the locus of most intrinsic literacy difficulties (e.g. Gillon & Dodd, 1997; Moats 1999; Stanovich, 1986; Torgesen, 1999). The phonological core hypothesis is supported by multiple studies demonstrating that most students with reading difficulties

have specific deficits in their phonological processing and/or their phonic decoding (e.g. Snowling, 2013; Stanovich & Siegel, 1994; Vellutino & Scanlon, 1982). An alternate hypothesis is that broader core language problems including but not restricted to phonological awareness cause literacy difficulties (Gee, 2015; Scarborough, 2009; Shapiro et al., 1990), whilst Hecht, Burgess, Torgesen, Wagner, & Rashotte (2000) propose two distinct loci—phonological specific and broader language deficits. A broader language hypothesis carries with it instructional challenges, as language difficulties are varied, complex and difficult to remediate whereas phonological awareness difficulties can usually be improved through whole class or small group instruction (Gillon & Dodd, 1997; Vellutino & Scanlon, 1982). Within both the phonological-component and phonological-specific hypotheses, students' difficulties in hearing and manipulating sounds are understood to map inefficiently onto graphemes, meaning that they have great difficulty in decoding words.

Students identified with early reading difficulties typically decode poorly, slowly, and inaccurately, and read texts at much lower levels than their peers (Pressley & Allington, 2014). In the cognitive paradigm, students experiencing these difficulties are considered 'second wave readers', as they have not responded to 'first wave' or quality initial classroom instruction. They are usually understood to require intervention to help them to acquire early reading skills. Multiple researchers emphasise the need to intervene early, noting that the strategy of leaving students to catch up or learn at their own pace is ineffective, and that older students with reading difficulties typically experience compounded learning and motivational challenges (e.g. Brooks, 2007; Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996). A second wave intervention typically involves small groups or individuals leaving the classroom for a period of time to work with a teacher, paraprofessional, or computer program in order to accelerate their reading progress. Clay (1993, 2005, 2016) popularised the idea of a second wave intervention[4] to accelerate the reading of young students with reading difficulties to the achievement levels of their peers, as earlier interventions had tended to focus on older students with pronounced and entrenched reading difficulties.

There are countless intervention programs designed to remediate early reading difficulties, drawing from a range of beliefs and theories about how and why these difficulties occur.

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[4] Whilst some sociocultural researchers (e.g. Purcell-Gates, et al., 2004; Woods & Henderson, 2002) locate Clay's program Reading Recovery within a cognitive, skills based paradigm, I note that it has theoretical and pedagogical differences to programs based on cognitive theories of reading development and discuss Reading Recovery in the section on meaning-centred approaches later in this chapter.

Despite this great variety, most reading intervention researchers agree that students with literacy difficulties need more intensive and explicit high quality instruction, and more opportunities to practice literacy skills and strategies, rather than different instruction to 'normally developing' readers (e.g. Allington & McGill-Franzen, 2000; Snow et al., 1998; Torgesen, 2004). Klenk and Kibby (2000) further clarify that print literacy difficulties are print based, and therefore students with such difficulties require interventions to strengthen their print skills rather than alternatives based on visual, motor, or other means. Early reading interventions grounded in cognitive theories of reading acquisition typically focus on particular skills, such as students' phonological awareness, their phonic knowledge and use of this when reading and writing (Lyon & Moats, 1997), and their knowledge of irregular high frequency sight words such as 'once', 'are' and 'the' (Multilit, 2007). The appropriateness of focusing on these skills is supported by Slavin, Lake, Davis, & Madden's (2011) best evidence synthesis on effective programs for struggling readers, which found that "almost all successful programs have a strong emphasis on phonics" (p. 19). Brooks' (2007) evaluation of literacy intervention schemes in England similarly found that programs focused on phonological and phonic skills were generally effective for raising literacy achievement, both for students with and without difficulties, and Hattie's (2013) meta-analysis on influences related to achievement found that reading programs with an emphasis on skills and strategies were more effective than those without.

A large number of scientific reading research studies have focused on early literacy interventions, testing the efficacy of different instructional approaches, and exploring the contribution of variables such as pedagogical content, mode of delivery, group size, teacher training, and intervention length. Such studies typically test a theory or hypothesis about interventions, using pre and post-assessments to measure students' response to the treatment condition. Iversen and Tunmer's (1993) research provides an example of this type of study. These authors compared the literacy achievement of students in an intervention with standard Reading Recovery procedures with that of another group who also received Reading Recovery but with the addition of five minutes of explicit phonics training. These authors found that the group receiving the additional phonics made 30% higher gain in reading achievement. Studies such as this foregrounded a body of work testing the importance of, and providing support for, phonics instruction in early reading intervention programs (e.g. Center, Wheldall, Freeman, Outhred, & McNaught, 1995; Chapman & Tunmer, 2011).

Cognitively oriented reading interventions developed and tested in Australia include: MINILIT (Multilit, 2011), a small group phonological awareness and oral language program; MULTILIT (Making Up Lost Time In Literacy) (Multilit, 2007), a one-to-one phonics, sight word, and reading program; and QuickSmart Literacy (Graham, Bellert, Thomas, & Pegg, 2007), a small group computer assisted program focusing on automaticity and fluency. Meiers et al. (2013) found that two individual early reading interventions—Reading Recovery (discussed later in the meaning-centred section) and MULTILIT, which teaches phonics, sight words, and also includes reading authentic texts—had reasonably strong research bases supporting their efficacy. They also found that two small group programs—MINILIT (2011), and QuickSmart Literacy—had some research evidence supporting their positive impact in improving students' literacy achievement.

Cognitive literacy intervention research designs may highlight the importance of a treatment variable such as phonics instruction, but a legitimate concern with such research is that literacy acquisition does not occur in a controlled research environment, and interventions do not operate in isolation (Freebody, 2007; McNaughton, 2011). Meiers et al. (2013) and Snow et al. (1998) identify broader logistical and contextual considerations in implementing successful interventions which are often absent from individual studies of program efficacy. They explain that successful interventions are embedded in whole school approaches in which ongoing assessment and monitoring, communication, teacher buy-in, and training are important components. As discussed earlier, these factors were evident in previous Victorian policies and pedagogical models which emphasised the need to situate interventions within the context of whole school environments (Culican, 2004; Czislowski-McKenna et al., 2006; Hill & Crévola, 1999, 2005; Wyatt-Smith & Gunn, 2007). Whilst many research studies provide support for early reading interventions with evidence of positive student achievement, such programs do not necessarily prevent later literacy difficulties. One reason for this is that students who participate in early interventions may fail to apply their skills to classroom and wider contexts (Freebody, 1990; Hiebert, 1994; Lankshear & Knobel, 1998), and so may not retain and build on their improvements. An alternate explanation comes from research showing that some groups of students exhibit specific skill profiles, increasing their likelihood of either ongoing or late-emerging reading difficulties. For example, Al Otaiba and Fuchs (2002) described the characteristics of students who continue to experience reading difficulties despite participating in early interventions, identifying that many have underlying phonological awareness deficits.

Catts et al. (2012) describe a different population of students who experience reading difficulties only later in their schooling, and found that they often exhibited language and/or general cognitive difficulties as young children. Both early and late-emerging older poor readers typically experience difficulties in decoding and understanding more complex words, and in comprehending more elaborate texts, due to the cognitive load of these tasks (Catts, et al., 2012).

Whilst a large proportion of younger and older students are able to make reasonable progress in literacy with the support of instructional and intervention opportunities, there is a small but significant group of students (1-5%) who, despite appropriate instruction and timely intervention, exhibit severe and persistent reading difficulties (Pressley & Allington, 2014; Vellutio, et al., 1996). Their reading development, even with support, may be significantly slower than that of other students, and they may not achieve the same reading automaticity and fluency as their peers (Torgesen, 2004). For some of these students, psychological IQ tests such as the Woodcock Johnson III (Mather, 2002) may be used to test for dyslexia or other specific learning difficulties, though in Victoria such testing is privately funded by parents and so is restricted to students from advantaged backgrounds. At a school level, teachers can measure students' response to first and second wave interventions to identify which students exhibit persistent difficulties (Lyon et al., 2001). There is the potential for school based diagnoses to be problematic as schools and teachers tend to over-identify such students, particularly in low socioeconomic status and minority populations (McDermott, Goldman, & Varenne, 2006). In addition, a formal diagnosis of learning disabilities or persistent difficulties can lead to low expectations (Clark, 1997), or support the belief that these students are educationally different, and better served outside the mainstream education system (Lilly, 1988).

Within a multi-level approach to intervention, students with severe and persistent literacy difficulties are considered in need of third wave, or long-term intervention and support (Hill et al., 2002; Rose, 2009). This may include programs that: teach or reteach early decoding skills such as QuickSmart Literacy (Graham et al., 2007); focus on comprehension strategies; or incorporate attention to students' engagement and motivation such as Reading for Life (Tracey, 2004). Purdie and Ellis's (2005) literature review on the most effective interventions for Australian students with learning—including literacy—difficulties in years four to six concluded that programs incorporating both skills and strategy use instruction were most the effective, as did Hattie's (2013) meta-analysis. The Australian Curriculum discusses learning differences in general terms, emphasising that it

is schools' and teachers' responsibility to educate diverse learners (ACARA, n.d.c). However, no current National or State guidelines or policies were found explicating how teachers should cater for students with severe and persistent literacy difficulties, possibly because students' varying needs make this a challenging area in which to advise. Nevertheless, without clear policies guiding instruction for these students, they may be at risk of receiving interventions based on spurious claims (Klenk & Kibby, 2000).

Cognitivist theories of print literacy development provide specific definitions of what print literacy is and how it is acquired. These definitions have prompted criticism of cognitive theorists and researchers for taking a limited view of what literacy is, and for failing to acknowledge cultural and social biases in assessments and pedagogical materials (Freebody & Wyatt-Smith, 2004; Luke, 2010; Street, 2003). Cognitive reading research has contributed more precise understandings of the reading acquisition process, and of individual and instructional differences contributing to reading difficulties. However, the narrow focus and pre and post-test design of many cognitive reading research studies makes their findings difficult to interpret in the wider social context (Freebody, 2007; McNaughton, 2011), and a key criticism of cognitive and other literacy interventions is that the improvement they elicit is not necessarily sustained over time (Reynolds & Wheldall, 2007; Sylva & Evans, 1999). In this thesis, I take the perspective that cognitive research offers useful information on significant variables in the literacy acquisition process. I also suggest that this precise work needs then to be re-contextualised into the domain of wider literacy development, in order to understand the relevance of its findings to classroom, school, and wider social and community contexts.

2.3.3 Summary

In this section I have reviewed the literature that conceptualises sociocultural and cognitive literacy theories, showing the different ways in which they offer explanations for and solutions to literacy difficulties. I have used this critical review to frame the research problem which is at the heart of this study, drawing on the work of Davidson (2010), Perry (2012), and Purcell-Gates et al. (2004) to argue that neither theoretical approach in isolation is adequate to understand and address print literacy difficulties.

In the following section I detour from these paradigms to discuss theories, pedagogical approaches, and a literacy intervention underpinned by an understanding of literacy as a meaning-centred activity.

2.3.4   Meaning-centred perspectives

Meaning-centred theories of literacy acquisition rose to prominence in 1980s and the 1990s. These theories include those underpinning psycholinguistic, whole language, and constructivist literacy paradigms, which commonly hold that learners actively participate in constructing knowledge, and that print literacy acquisition is a purposeful, meaning-making pursuit (Cambourne, 1988; Clay, 1985, 1991; Goodman, 1967; Smith, 2012). Meaning-centred ideas continue to influence classroom pedagogies, and are evident in the well-known intervention Reading Recovery. In this section I begin by outlining psycholinguistic and whole language perspectives, and briefly describe pedagogies and assessments arising from these. I relate these to constructivist theories of learning, and identify similarities between meaning-centred, socially constructed, and sociocultural pedagogies. Finally, I discuss and critique Reading Recovery, an example of an intervention grounded in a meaning-centred theory of literacy acquisition.

Meaning-centred theories became prominent through the work of a group of psycholinguistic scholars, who extended Chomsky's (1967) theory that people have an inbuilt and innate ability to acquire language. Goodman and Goodman (1976), Smith (2012), Cambourne (1988), and Holdaway (1979) were amongst those who hypothesised that reading and writing were also naturally acquired through immersion. Collectively, their theories frame reading and writing as active, meaning-making processes, and these ideas underpin whole language teaching philosophies which emphasise learning through immersion, naturalistic engagement in literacy, and the use of real literature. These pedagogies are concerned with the purposeful construction of meaning, rather than the development of discrete skills. One key point of difference between whole language and cognitive pedagogies is that in the former, skills such as phonics, spelling, and grammar are only taught in the context of reading and writing texts. Early psycholinguistic and whole language proponents discouraged the explicit teaching of phonics, as they believed readers drew on their prior knowledge and the semantic and syntactic cues in texts rather than attending closely to letter-sound correspondences (K. Goodman, 1967), a belief that has been robustly challenged in later work (Rayner, 1998; Adams, 1994). Contemporary reading pedagogies show the influence of these early ideas with the continued teaching and analysis of three cueing systems—grapho-phonic, semantic, and syntactic—which readers are understood to draw on when encountering unfamiliar words (ACARA, n.d.d; Emmitt et al., 2013; Hill, 2012). The relative importance of these cues continues to be debated, with a number of more cognitively oriented scholars arguing that competent readers use grapho-phonic cues as their initial source of information with semantic and syntactic cues playing

a supporting role when decoding unknown words, whereas whilst poorer readers do the opposite (e.g. Buckingham et al., 2013; Chapman & Tunmer, 2003; Nicholson, Bailey, & McArthur, 1991; Moats, 1999; Pressley & Allington, 2014).

Assessment in meaning-centred classrooms is designed to capture students' meaning construction processes. The teacher's role is to carefully observe what students do when reading and writing, and so assessments are frequently contextualised in authentic literacy activities (Cambourne, 1988; Y. Goodman, 1982). Miscue Analysis (K. Goodman, 1969) and the more well-known running records (Clay, 1979; 1993) provide systematic methods of observing students' oral reading. In these assessments, teachers use written notation to record students' correctly read words, errors, self-corrections, and uses of the three cues in the context of reading connected text. Running records continue to be a recommended form of reading assessment in Australia (Department of Education and Early Childhood Development—DEECD[5], 2009; Hill, 2012; Winch, Johnston, March, Ljungdahl, & Holliday, 2010), and one which is generally understood to offer useful and reliable information about young readers' instructional text levels and processing strategies (Nicholson, 2010). Another assessment, the Observation Survey of Early Literacy Achievement (Observation Survey) (Clay, 1993b, 2013), is a battery of norm-referenced skill tests used for identifying young students in need of intervention, and for monitoring their progress. Like running records, the Observation Survey works on the principle that students should be assessed using classroom-like tasks, and highlights the teacher's role as a skilled observer (Clay, 1993b, 2013). Whilst the Observation Survey pays attention to specific knowledge and skills, and both running records and the Observation Survey follow standardized procedures, these tasks seldom deconstruct literacy skill acquisition to the same level of specificity as many cognitive skills assessments, instead maintaining a focus on whole texts as much as possible.

Whole language pedagogies and assessments have several similarities with constructivist and sociocultural literacy practices (Smagorinsky, Hansen, & Fink, 2013; Tracey & Morrow, 2006; Vermette & Foote, 2001), and this group of theories continues to influence Australian literacy pedagogy. For example, these theories collectively position the student as an active learner, who constructs their own knowledge in social contexts with parents, teachers, and more able peers as facilitators supporting them to achieve tasks that they are

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[5] Victoria's Department of Education and Early Childhood Development (DEECD) had previously been named the Department of Education and Training (DET), and reverted to this original name and acronym in 2015. Both acronyms are used to cite documents in this thesis, depending on their year of publication.

not yet capable of achieving independently (Vygotsky, 2005). In addition, the importance of context in learning is emphasised, and content used may draw on students' own interests. The longevity of this set of beliefs is evident in contemporary Victorian and Australian classroom literacy practices, with teachers commonly using meaning-centred and co-constructed pedagogical and assessment approaches such as shared reading (DEECD, 2009), real literature (ACARA, n.d.e), and running records (DEECD, 2009).

Yet there are also clear differences within this cluster of theories. For example, whole language pedagogies focus on print and oral literacies, and are premised on the belief that all students learn through the same kinds of reading and writing activities. In contrast, sociocultural pedagogies adopt a broader lens on what literacies are and how they are practised, suggesting more fluid and diverse learning activities. The lack of attention to social and cultural difference in whole language pedagogy has resulted in criticism of this approach for disadvantaging students from less privileged backgrounds, whose funds of knowledge may not match the learning opportunities on offer in the classroom (Stahl & Miller, 1989). Cognitivist scholars and reports have also critiqued whole language (Buckingham et al., 2013; Tunmer et al., 2006) and constructivist instructional practices (Donnelly & Wiltshire, 2014; Ellis, 2005; National Inquiry into the Teaching of Literacy, 2005), arguing that students, particularly those with literacy and learning difficulties, also required explicit, teacher-directed modes of instruction, grounded in cognitive theories of learning and literacy acquisition.

Meaning-centred scholars offer divergent perspectives on how and why literacy difficulties occur. Some psycholinguistic (K. Goodman, 1977; Smith, 2012) and sociocultural (Luke, 2008) theorists agree that print literacy difficulties occur when students have been inappropriately taught through an emphasis on decontextualized skills rather than on gaining meaning. In addition, both K. Goodman and Smith take a similar stance to Street (1990, cited in Hartley, 1994) in downplaying the incidence and significance of print literacy difficulties. An alternate perspective is offered by Clay (1985), whose body of research acknowledges that acquiring print literacy is not easy for all students, and places importance on addressing early difficulties before they become entrenched. Clay's stance is reflected in the conceptualisation and content of Reading Recovery (Clay, 1985, 1993, 2005, 2016)—a second wave intervention for individual students designed to prevent later reading and writing difficulties. This intervention is underpinned by constructivist theories of learning and psycholinguistic theories of language and literacy development, as highlighted by Clay's definition of reading as "a message-getting, problem-solving activity

which increases in power and flexibility the more it is practised" (1991, p. 6). Whilst Reading Recovery is theoretically grounded in meaning-centred theories, it differs from meaning-centred classroom pedagogies in that it is more structured and teacher directed.

Reading Recovery is of particular relevance to this thesis as it was the nominated second wave reading intervention for Victorian Government primary schools from 1984 (Reynolds & Wheldall, 2007, as cited in Serry & Oberklaid, 2015) until 2014 (DET, personal correspondence, 2014), and for Catholic schools in the Archdiocese of Melbourne until 2017 (CEOM, n.d.a). It is also the most commonly offered and widely researched literacy intervention program internationally (Jesson & Limbrick, 2014), and was the most commonly offered intervention program in Louden et al.'s (2000) large scale study on students with learning difficulties in Australia. Reading Recovery is designed for students who have not made expected reading progress in their first year of schooling, and is delivered by a trained teacher through individual daily half hour lessons. It is a high fidelity program, with ongoing monitoring and support for participating schools and teachers (DEECD, 2007). Reading Recovery's extensive research base includes studies that demonstrate its effectiveness in accelerating the literacy learning of young students (e.g. D'Agostino & Murphy, 2004; Hattie, 2013; Hiebert & Taylor, 2000; Shanahan & Barr, 1995; Slavin, Lake, Chambers, Cheung, & Davis, 2009; What Works Clearinghouse, 2013). Its research base also includes studies that identify weaknesses in the program's content (e.g. Iversen & Tunmer, 1993), point out its flawed data collection methods (Chapman & Tunmer, 2011; Shanahan, 1987), wash out effects over time (Bradford & Wan, 2015; Freebody, 1990; Reynolds & Wheldall, 2007), and high cost (Chapman & Tunmer, 2011; Simon, 2011).

Reading Recovery lessons are centred on reading and writing short texts, and focus on students' development of problem solving strategies and their active construction of meaning (Clay, 1985, 1991). Lessons also attend to specific skills—for example, students are taught to break down words and recognise letters—but they do this in the context of reading and writing rather than through isolated skill instruction (Clay, 1993a, 2016). Like meaning-centred classroom approaches, Reading Recovery positions the student as an active participant and the teacher as an expert scaffolder (Clay, 1991, 1993a, 2016).

Reading Recovery's theoretical base and pedagogies differ from both sociocultural and cognitive principles, and these theoretical tensions are evident in critiques of Reading Recovery by scholars from each paradigm. For example: sociocultural researchers have argued that Reading Recovery targets individual students rather than the societal

inequalities leading to different educational outcomes (Dudley-Marling & Murphy, 1997; Woods & Henderson, 2002), and that the program is too specific and inflexible (Barnes, 1996; Lankshear & Knobel, 1998); whilst cognitive researchers have criticised the program for teaching students to read through a range of strategies, rather than prioritising early decoding skills and the use of grapho-phonic information (Centre et al., 1995; Chapman & Tunmer, 2011). Despite this, Reading Recovery has its own field of researchers, proponents, and supporters in the educational community, many of whom conduct research from meaning-centred perspectives (Allington, 2005; Askew, Fountas, Lyons, Pinnell, & Schmitt, 1998; Gapp, Zalud, & Pietrzak, 2009; Hiebert, 1994; Lo Bianco, & Scull, 2008; Pinnell & Fountas, 2006; Schwartz, Hobsbaum, Briggs, & Scull, 2009; Spiegel, 1995).

In addition to sociocultural and cognitivist researchers viewing the concept and content of Reading Recovery in very different ways, the design of studies evaluating the program show marked differences in researchers' understandings of what counts as literacy and literacy improvement, and in the kinds of data gathered to measure literacy development. Sociocultural studies such as Barnes' (1996) and Tancock's (1996) case studies of students in Reading Recovery place value on the contextualised practices of literacy, and so invariably critique Reading Recovery for emphasising the development of early literacy strategies and behaviours. Conversely, Iversen and Tunmer (1993) and Reynolds and Wheldall (2007) designed cognitively oriented studies to test hypotheses about Reading Recovery's instruction at the skill level, and critiqued this program for not adequately emphasising early literacy skills. In each of these examples, the researchers tested and found support for their particular theories of literacy acquisition, yet I suggest that important information can be overlooked in these and other research studies that view a particular literacy intervention from a singular theoretical lens. For example, Lankshear and Knobel's (1998) sociocultural critique of the affordances of Reading Recovery does not acknowledge that students' Reading Recovery programs constitute 30 minutes of their learning at school in their analyses of the narrow literacy education offered to these students, nor do they consider the learning needs of individual students participating in the program, who may in fact be competent in a range of oral, analytical and comprehension skills, but have specific difficulties with reading and writing print. Iversen and Tunmer (1993) provide a more careful description of their participants' classroom learning environments, though they also apply blanket critiques of the learning content of Reading Recovery, writing as if this intervention was students' only opportunity to learn. McNaughton (2011) takes a broader perspective in considering the wider environment in

which Reading Recovery operates in, pointing out factors other than instructional design—such as student transience and frequent absence—that impact on students' progress in Reading Recovery.

Theories of literacy learning as an active, meaning making process have underpinned and continue to influence literacy pedagogies and interventions. Co-constructed and meaning-centred methods of literacy teaching and learning are common in Australia, though some suggest that more attention is needed to the teaching of cognitive skills. Reading Recovery has been discussed to show the influences of meaning-centred theories in a large-scale literacy intervention, and the utility of a single cognitive or sociocultural lens for appraising this intervention has been problematized.

2.4   Blended paradigms

As discussed in the preceding sections, literacy acquisition and intervention research studies are commonly grounded in one of sociocultural, cognitivist, or meaning-centred paradigms. This section provides a visual overview of how these paradigms relate to one another, and briefly discusses balanced literacy pedagogies, which draw on understandings from more than one paradigm. It then relates the concept of a balanced pedagogical stance to research, considering the potential of a balanced theoretical lens for literacy intervention studies. Examples of studies that draw theoretically and methodologically from more than one paradigm are critiqued to show the potential of such a lens. Finally, the measurement of literacy development and achievement is discussed, with particular attention to research studies that utilise theoretically diverse approaches for gathering evidence of students' literacy intervention improvement.

The following figure—Figure 2.1—shows the three major paradigms outlined in this literature review on a continuum from developmental skills oriented, to socially constructed and meaning-centred approaches.
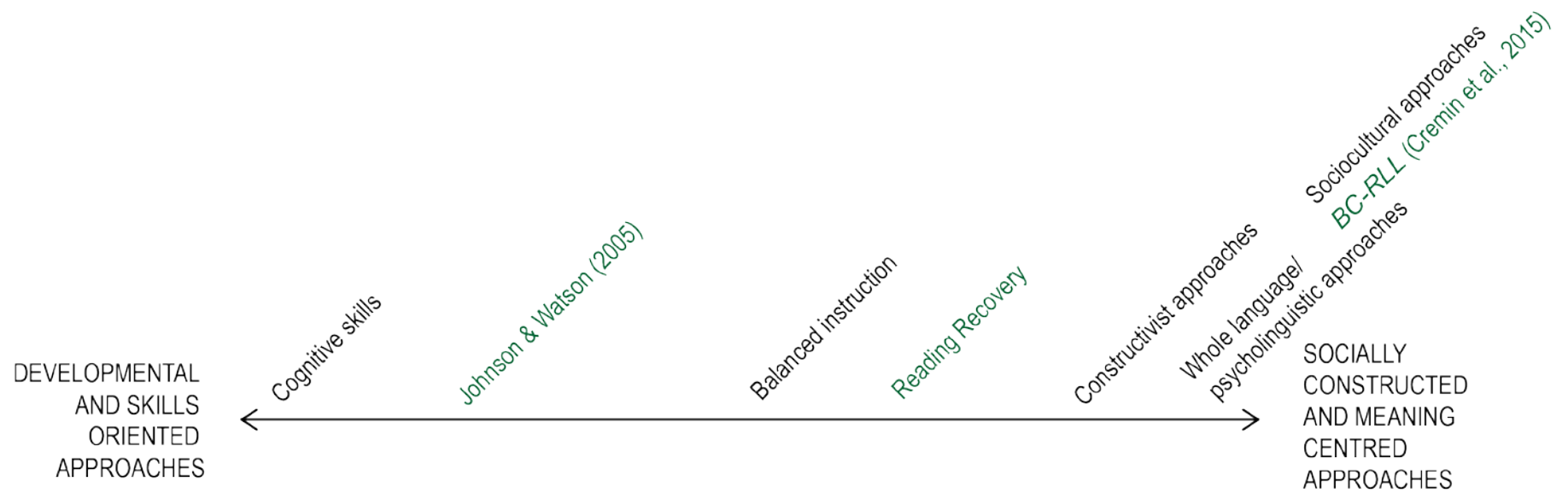
Figure 2.1. A continuum of literacy theories and interventions.

Figure 2.1 maps the commonalities between meaning-centred, sociocultural and constructivist literacy theories and pedagogies, whilst clarifying the alternate position offered by the cognitive paradigm. Sociocultural approaches are located above the continuum, in part because these differ from meaning-centred paradigms in pushing the boundaries of what literacy is, and also because sociocultural pedagogies differ depending on location, participants, and community values. Despite this, the sociocultural paradigm does prioritise purpose and meaning in literacies engagement, and is therefore located at the meaning-centred end of the continuum. One intervention from each paradigm has been plotted on Figure 2.1 to show the approximate theoretical location of these.

In educational practice, these theories are not as neatly separate or contained. Hall (2003), Hill (2012) and Xue and Meisels (2004) each explain that in schools and classrooms, teachers frequently offer a mixture of literacy instruction informed by two or more theories. In doing so, teachers may draw on the principles of balanced literacy instruction (Pressley & Allington, 2014)—an approach shown in the centre of Figure 2.1. Balanced instruction commonly refers to pedagogies drawing from both cognitive and meaning-centred approaches, and its proponents acknowledge the need for teacher-led, explicit skill instruction as well as student-focused, meaning-centred experiences (Pressley & Allington, 2014). This approach positions the teacher as an expert who makes precise and rapid pedagogical decisions, moving between more and less explicit modes (Luke, 2008; Pressley & Allington, 2014).

A balanced approach may also draw on additional theories, for example, connecting to sociocultural ideas by drawing more explicitly on students' funds of knowledge and home discourse patterns than meaning-centred pedagogies traditionally did. The Australian Curriculum promotes this broader balanced stance, incorporating sociocultural and cognitive principles and objectives (ACARA, n.d.d) within a pedagogical context of constructivist practices (Donelley & Wiltshire, 2014).

Whilst balanced literacy instruction is promoted in the Australian Curriculum, this review of the literature has shown that literacy research is more commonly located in a single paradigm. The following section discusses the potential of drawing from more than one theoretical lens when designing literacy intervention research, and critiques examples of literacy intervention studies that do so.

2.4.1 A rationale for balanced or blended literacy research paradigms

It is possible for one major factor, either an intrinsic factor within the child or an extrinsic factor in the child's environment, to be predominantly responsible for learning difficulties, but in most instances it is the result of complex inter-reactions amongst a number of factors (National Health and Medical Research Council - NHMRC, 1990, p. 3).

Moss and Huxton (2007), in their analysis of phonics in England's National Literacy Strategy, note that the value of phonics instruction has been thoroughly explored by researchers and theorists from both cognitive and meaning-centred paradigms. They explain that:

> The same evidence can be read differently through the lens of different paradigms. It is hard to see how more research would of itself help resolve these dilemmas when the problems are not couched within a single paradigm's field of reference (p. 71).

I suggest that this observation on phonics research could also be applied to the phenomena of literacy difficulties and interventions, neither of which is located within a single theoretical paradigm. In this thesis, I take the position that, as literacy acquisition is a complex process and difficulties in acquiring it may occur because of intrinsic and/or extrinsic origins, a broad theoretical stance is likely to be of benefit to literacy researchers, enabling nuanced explorations of literacy development.

I note that whilst researchers may use a particular lens and methodological approach when exploring change through a literacy intervention, the studied phenomena and participants are always part of a wider sociocultural context. For example, in Clackmannanshire at the time of Johnston and Watson's (2005) research, other literacy initiatives drawing from more social and constructivist paradigms were also occurring (Ellis, 2007). Ellis explains that the Clackmannanshire phonics study was not imposed on participating schools from outside, rather there was considerable dialogue between the researchers and teachers. Within the participating classrooms there was a particular focus on "the acquisition of thinking and comprehension skills" (p. 287), whilst in the wider community, library resources, home-school liaison teachers, story and homework clubs, and parent groups were initiatives aimed at promoting literacy (Clackmannanshire Council, 2003, cited in Ellis, 2007). Whilst the studied variable of interest—the role of explicit phonics training in

students' reading development—was a specific cognitive skill, it was delivered as one aspect of a broader educational program. This example illustrates how programs, curriculum emphases, and the variables in research studies are not implemented in isolated vacuums, but instead are part of wider learning systems.

2.4.2   Studies drawing from more than one lens and or methodology

In further developing the field of literacy intervention research, Freebody (2007) and McNaughton (2011) propose that more complex questions interrogating the effectiveness of programs in particular circumstances and for specific groups ought to be explored. I suggest that research drawing from more than one theoretical lens has potential for exploring such questions. In the context of this thesis, a socio-cognitive lens allows for the consideration both of intrinsic and extrinsic factors impacting on students' literacy trajectories, and a broad perspective on what counts as literacy development enables the collection of a range of literacy achievement data. In this section I discuss three studies that explore questions about literacy intervention efficacy in theoretically nuanced ways, often using mixed methods data, for example, by gathering large scale quantitative data then using qualitative methods to home in on particular concepts and ideas.

Jesson and Limbrick (2014) describe a study exploring the specificity of literacy intervention success in which they investigated the features of schools in which ex-Reading Recovery students sustained their literacy growth and continued to be successful readers in their classrooms. Their study used quantitative data to track students' reading and writing progress subsequent to their Reading Recovery interventions, and qualitative data to investigate the features of schools in which ex-Reading Recovery students kept pace with the literacy achievement of their peers. This multilayered study enabled an examination of how and why Reading Recovery offered more sustainable literacy gains in some schools than in others. Like Culican (2004), Hill and Crévola (1999, 2005), and Meiers et al. (2013), Jesson and Limbrick found that when a literacy intervention—in this case Reading Recovery—was embedded in a whole school approach in which collective responsibility for student learning was taken, students continued to make positive literacy progress. The schools Jesson and Limbrick investigated appeared to heed Snow et al.'s (1998) reminder that schools play an important role in ensuring students build on their intervention gains. In addition, these case study schools had clear and specific foci on literacy learning, employed regular, systematic monitoring of students' achievement over time, had high expectations of students' ongoing success, and had strong relationships with

parents and the wider community. Whilst student-level achievement data was gathered, the study focused strongly on school-level extrinsic factors influencing literacy intervention success. Jesson and Limbrick's conclusions on the practices of schools that supported sustained literacy growth beyond Reading Recovery participation also have clear similarities with the whole school literacy pedagogical frameworks discussed earlier—EYLP (Hill & Crévola, 1999) and CLaSS (Hill & Crévola, 1999, 2005).

McNaughton, Lai, McDonald, and Farry's (2004) mixed methods, longitudinal study explored improving and sustaining high-quality reading comprehension teaching of culturally and linguistically diverse students in low socioeconomic status schools in New Zealand, through the development of school and researcher partnerships. Whilst some aims and methods of this study were sociocultural, the authors considered both cognitive and sociocultural contributors to students' poor reading comprehension. For example, they gathered student assessment data, and also observed in classrooms to look for connections between pedagogy and learning. Through the use of the assessment data they eliminated the possibility that the students had underlying poor decoding skills, and also disproved a hypothesis that Pasifika students would be stronger in particular kinds of comprehension questions due to their home literacy and discourse patterns. Through the classroom observations and assessment data, the researchers identified strengths in the overall teaching of comprehension strategies, and also observed a weakness in a specific type of comprehension task, in which students needed to eliminate less relevant information to select a single best fit word. Attention to detail, and the consideration of a range of potential loci of reading difficulty, enabled these researchers to identify particular sub-skills, strategies, and practices needed for reading comprehension improvement in the participating schools.

Hill et al.'s (2002) *100 Children* study tracked the literacy development of Australian children from the year before they began school, until approximately aged ten, by gathering assessment data, qualitative interview and observation data from home and school, and background school and community information. This rich study demonstrated the profound differences experienced in more and less advantaged communities in Australia, and the effects of these on the literacy learning of the participating students. The authors showed how early differences in cognitive skills often, but did not always, predict later literacy difficulties, and how the socioeconomic influences of differential school funding and support, and the pull of social influences in the classroom, impacted on

students' learning as they progressed through school. The authors used a sociocultural lens, but were not limited by it. For example, they acknowledged the importance of print literacy, and the difficulties some students had in acquiring this, and used data from literacy assessments alongside work samples and observations to learn about students' literacy development. They identified the ways in which early literacy interventions supported some students to become more successful, and also noted that support in the later years was also needed. The *100 Children* study acknowledges a range of literacy trajectories, and is careful to not simplify the causes for these, or prescribe blanket panaceas for them.

These three studies demonstrate the potential of theoretically and methodologically diverse research designs for exploring complex questions about literacy development through an intervention. Data from skill-based assessments were gathered to gain an understanding of students' specific strengths and difficulties (Hill et al., 2002; McNaughton et al., 2004), their literacy development over time (Hill et al., 2002; Jesson & Limbrick, 2014; McNaughton et al., 2004), and instructional needs (McNaughton et al., 2004). In addition, data on instructional opportunities (Hill et al., 2002; McNaughton et al., 2004), schoolwide policies and practices (Hill et al., 2002; Jesson & Limbrick, 2014), and broader socioeconomic (Hill et al., 2002; Jesson & Limbrick, 2014; McNaughton et al., 2004) and sociocultural contexts (Hill et al., 2002; McNaughton et al., 2004) were collected. These three levels of individual, school, and wider context data enabled these studies to explore complex questions about how and why pedagogical programs and interventions contribute to literacy development in particular settings. In addition, the longitudinal design of each of these studies enabled an examination of whether literacy intervention gains were sustained and built on in students' post-intervention years.

The choices of assessment tools in these studies reflect cognitive and meaning-centred understandings of literacy achievement, though Hill et al. (2002) also used observation and interview data to explore how students used literacies in the classroom and at home. Hill et al.'s use of cognitive, meaning-centred, and sociocultural measures of literacy change enabled a deeper and more nuanced understanding of students' literacy development, and such an approach may offer useful data for researchers exploring literacy growth through an intervention. The following section discusses methodologies for measuring students' literacy achievement and growth, including those including a measure of changes in literacy practices.

2.4.3 Conceptualising success

In the preceding sections, I have discussed how sociocultural, cognitive, and meaning-centred literacy researchers conceptualise literacy in different ways, value different kinds of literacy outcomes, and collect different kinds of data to provide evidence of these outcomes. Sociocultural researchers like Kamler and Comber (2005) gathered evidence of students' classroom work and teachers' descriptions of students' changes in engagement in literacy tasks, whereas cognitive researchers like Iverson and Tunmer (1993) gathered pre and post-assessment data on a number of literacy sub-tasks. Meaning-centred programs like Reading Recovery (Clay, 2005) use a series of teacher administered skill and classroom-like tasks to evaluate students' literacy achievement. These significantly different kinds of data make comparisons of research findings across paradigms extremely difficult. Furthermore, intratheoretical analysis is challenging as rigid understandings of literacy-as-skills or literacy-as-practices precludes investigation into how development in one of these areas relates to development in the other. In this section I will discuss key concepts underpinning literacy assessment, and outline contemporary Australian Curriculum expectations for assessment practices. I will then critique examples of literacy research studies that assess students' literacy development using tools from more than one paradigm. In doing so, I identify a research gap in studies that have explored the relationship between the development of children's literacy skills and their literacy practices.

Three important assessment concepts are validity, reliability, and transfer. A valid assessment assesses what it sets out to assess, and a reliable assessment's results are replicable. When assessing literacy sub-skills such as phonological awareness, word reading, or spelling, specific cognitive assessments may fulfil criteria for both validity and reliability. For example, the Sutherland Phonological Awareness Test—Revised (SPAT-R) (Neilson, 2003) assesses the major components of phonological awareness. The SPAT-R demonstrates its validity through high correlations with other phonemic and more general reading assessments (pp. 47-8), its reliability using Cronbach's Alpha to demonstrate excellent internal consistency (a $\geq$ 9) between its two forms (p. 46), and further providing evidence of high (99%) inter-examiner scoring agreement (p. 47). Achieving both validity and reliability in assessment is possible in the cognitive paradigm when assessing specific skills, yet the assessment of overall literacy competence and achievement is much more complex and difficult than the assessment of these individual components (Afflerbach, 2007; Pearson at al., 2014). For example, simply reading one

passage draws on skills and knowledge in decoding, comprehension, prior knowledge of topic and genre, vocabulary, and critical thinking.

In school settings, multiple measures are typically used to assess the various components of students' literacy development and achievement. In Australian primary education settings these incorporate: formative approaches to provide feedback to students and teachers, and to inform future learning; summative approaches to compare student achievement with the curriculum expectations (ACARA, n.d.f); and summative approaches in which students sit NAPLAN (ACARA, n.d.b) and may also participate in the PIRLS standardized tests (National Assessment Program, n.d.), providing data on broad trends in population achievement. Formative and curriculum based approaches to assessment are more likely to incorporate students' classroom work and contextualised tasks, having higher context validity and relevance to students, whereas national and international testing regimes may be less valid to some ethnic, social, and cultural groups, both in terms of their content, and in terms of the individually administered test format (Comber, 2012; Cumming, Wyatt-Smith, & Colbert, 2016; Freebody & Wyatt-Smith, 2004; Luke, 2010; Street, 2003; Vass & Chalmers, 2016). Despite these concerns, Brown and Hattie (2012) argue that standardized tests are more reliable than classroom tasks, which may vary in the kinds of texts used, the degree and type of support offered, and students' prior knowledge of text types and topics. An alternate means of considering students' literacy development and achievement is their engagement and competence in increasingly complex literacy practices. Whilst such data is seldom gathered as evidence of students' progress, it is a valuable source of information. Purcell-Gates et al. (2004) contend that "the involvement of students in the social practice of literacy in the classroom is statistically significantly more related to growth and development of literacy practices than decontextualized skill work" (pp. 143-4).

Despite teachers drawing from a range of classroom and standardized assessment measures to draw conclusions about students' literacy achievement, working with varied forms of data can pose challenges for teachers. For example, Quick (2012, 2013) reported New Zealand teachers' concerns that their students were achieving highly in contextualised reading measures but less well on more formal assessments. Pearson et al.'s (2014) concept of transfer is useful when interpreting such divergent results. These authors explain that:

It is one thing to demonstrate the acquisition of a skill or body of knowledge in class—with support from the guiding hand of a thoughtful teacher or the strong pull of classroom cultural practices—but it is quite another to show that you can use that knowledge outside of class—in another class, on a consequential exam, or, to be excessively bold, in everyday life (p. 238).

This concept of transfer implies that whilst achievement on cognitively oriented tests and engagement in contextualised practices are on opposite ends of a cognitive-sociocultural theoretical continuum, they are similar in that both require the selection, application, and employment of literacy skills and knowledge. In addition, sitting literacy tests and engaging in literacy practices are often, though not always, independent activities. Pearson et al. (2014) note that transfer is difficult to achieve, and suggest that this is an explanation for why some students are more successful when assessed in familiar environments with scaffolding, than when attempting independent tests or real life literacy tasks. A focus on the transfer of learning to more independent contexts suggests that both cognitive and sociocultural evidence of literacy development can be of value, and, in addition, promotes exploration of the interaction between these two kinds of evidence—for example, whether new learning transfers to improved assessed achievement and changes in practices at the same rate.

In the following section I critique literacy intervention research that draws on two or more kinds of achievement data, noting that in searching for literacy intervention studies that conceptualised literacy development both in terms of students' literacy skill achievement, and the ways in which they used and practised literacies, I identified a specific research gap in studies that employed some measure of primary-aged students' uses of literacies to explore their literacy development over time.

A number of reading intervention studies conceptualise reading development as a process in part mediated by positive dispositions towards, and regular habits of, reading. Afferbach (2007) breaks this broad affective domain into five components: reading self-concepts; motivations to read; attitudes towards reading; reading interests; and attributions for reading success and failure. Teachers routinely gather informal information about student development in these areas, though in a research context, more formal tools and scales such as Wigfield and Guthrie's (1997) *Motivations for Reading Questionnaire* are often used. Whilst some studies use these tools to examine participants' affective stances alone, they are more commonly used in combination with other kinds of data to explore the

connections between affective and other aspects of the reading development process. For example, Chapman, Tunmer, and Prochnow's (2000) longitudinal study examined the relationship between students' self-efficacy and their reading achievement. These authors gathered data using academic and reading self-efficacy scales and reading assessments, demonstrating that students' reading self-concept and overall academic self-concept were highly correlated, and that negative affective stances over the course of the study correlated with poorer school entry literacy skill assessment data. Chapman et al.'s data sets aimed to quantify different aspects of literacy development, yet the design of their study moved beyond typical cognitive pre and post designs, acknowledging that either negative affective stances or poor cognitive skills could be the first sign of challenge for students at risk of becoming poor readers, and demonstrating an understanding that these two potential loci of difficulty are likely to interact.

A more holistic study was Hill et al.'s (2002) *100 Children* project, described earlier. This used a range of assessments and methodologies to track students' literacy progress over time. Their battery of literacy assessments included; meaning-centred measures such as running records to establish students' instructional text levels; cognitive skill measures such as phonemic awareness, word reading, and spelling tests; and researcher-designed and other non-norm-referenced tools to explore reading comprehension. In addition to these formal assessments, researchers gathered qualitative observations of students in their classroom environments, had discussions with school staff, and interviewed parents about their child's literacy learning and home literacy practices. Students' literacy development was described using the assessment data, and the larger qualitative sets were used to explore how and why students were achieving in particular ways. The authors were able to discuss students' measured literacy achievement in relation to their school learning opportunities and social backgrounds, and to explore their literacy development over the five years of the study. The longitudinal nature of the *100 Children* project enabled a broader and deeper analysis of students' literacy trajectories and achievements than shorter term designs would typically allow. For example, many of the case study students in the *100 Children* project experienced a period of acceleration in their literacy development, either related to a particularly good teacher, a home or school intervention program, or through changed health or family circumstances. The longitudinal design of this study enabled an examination of whether this additional literacy growth was maintained and built on, or diminished with further changes of circumstances.

In the field of literacy intervention research, multiple studies have gathered students' assessment data and their qualitative perspectives on their intervention and literacy progress. Brooks (2007) points out that both of these elements are needed, noting that qualitative responses from child literacy intervention participants and their parents are invariably positive, but do not necessarily "correlate with measured progress" (p.18). A study using both formal assessment and qualitative interview data to explore intervention achievement with adolescent literacy learners was the *Audio Visual Achievement in Literacy Language and Learning (AVAILLL)* study (Parkhill & Davey, 2012) conducted in a New Zealand young offenders' prison. Parkhill and Davey used formal reading assessment tests pre and post the implementation of the *AVAILLL* program, an intervention incorporating a range of literacy tasks centred on watching and reading popular subtitled films. Participants were also interviewed about their perspectives of the intervention at the end of the program—a data set which appeared to be particularly important in this study due to the vulnerable position of the participants and the particularly complex social problems inherent in prison education. Most participants achieved accelerated literacy growth on standardized comprehension tests over the course of the intervention. Their qualitative responses discussed their mainly positive experiences of the intervention—including the opportunity to get out of their cells, improvement of literacy skills, and enjoyment of the delivery method. Yet this data set also highlighted the participants' complex social and educational histories, with some participants observing that they had limited future educational opportunities once the intervention had concluded. The qualitative data in this study added a layer of complexity to the positive picture painted by participants' test results, relocating the assessment data back in its wider social context.

In the Australian school context, Rennie's (2016) short-term intervention study aimed to reconnect adolescent poor readers with the purposeful reading of age-appropriate and interesting texts. It used a range of data including: students' pre and post-assessment data; pre-intervention discussions with students to elicit how and why they did and did not engage with print literacies; a measure of student motivation towards reading (Wigfield & Guthrie, 1997); and qualitative focus groups with students after their intervention programs. These different data sets allowed several dimensions of the participants' literacy difficulties and development to be investigated, though Rennie emphasised the qualitative, sociocultural data through analysing shifts in students' literacy identities over the course of the intervention. Some students discussed specific ways in which they were

using their improved literacy skills, providing examples of increases in voluntary reading practices, including preferred genres and texts. This study demonstrates one method—qualitative interview questions—by which researchers can elicit information about students' classroom, home, and community literacies.

In literacy intervention research like Rennie's (2016) and Parkhill and Davey's (2012) studies, the incorporation of qualitative data enables an insight into participants' experiences, and an understanding not only of their assessed performance in relation to their peers, but also of what these achievements mean to the participants. Rennie's qualitative data set also included information about students' reading practices, suggesting a possible methodological alternative to the ethnographic, observational means of gathering data about what students do with literacies that were discussed earlier in the sociocultural section of this chapter. Kamler and Comber (2005) used a similar approach, interviewing teachers about changes they had noticed in their students' uses of literacies over the course of their interventions. Interview data may include valuable information about the literacy practices easily recalled by interviewees, but without specific questions probing intervention participants' uses of digital, environmental, and other means of communication, interviewees may not remember particular practices or may be more inclined to provide information about traditional modes and texts.

A measure of literacy practices can be generated through an interview or written tool or protocol. These pose questions about the specific literacy practices participants engage in, enabling tallying and analysis of reported practices, and the repeated use over time phases to gather longitudinal data for comparison. The design and use of such a tool requires researchers to employ a socio-cognitive lens: taking the sociocultural view that literacies are varied, diverse, and socially situated; and the cognitivist perspective that literacies can be quantified, and that it is useful to do so. Only two studies were found that developed a questionnaire or interview tool in order to explore changes in participants' uses of literacies as they progressed through interventions to improve their literacy learning, and both of these were conducted with adult literacy learners.

Purcell-Gates et al.'s (2004) *Literacy Practices of Adult Learners Study (LPALS)* study gathered data on two different dimensions: the content and delivery method of 271 adult literacy programs in the United States; and the participating adult learners' literacy practices. For the latter measure, the researchers designed an interview protocol asking about the adult learners' "specific literacy practices such as reading coupons, writing

personal letters, and reading books" (p. 19). The participants were interviewed once, and were asked if they engaged in each practice, whether they believed they did so more since beginning their literacy program, and for other reasons or elaborations on these changes in practices. Purcell-Gates et al. found that students with the lowest literacy levels reported the highest growth in literacy practices, and that those participating in programs using sociocultural and contextualised instruction were more likely to elicit higher levels of literacy practices engagement than students in highly teacher-directed and school-like programs. This study's open ended interview tool enabled participants to share other factors that had contributed to their literacy growth, for example, the death of a partner or birth of a child driving increased engagement in the uses of print literacies. This literacy practices protocol, whilst gathering rich data, did rely on participants' recollections, and repeated measures were not taken over time to explore participants' longer term literacies uses.

Reder's (2011) *Longitudinal Study of Adult Learning (LSAL)* tracked the literacy development of 940 adult participants from Portland, United States —none of whom had completed high school—over eight years. Literacy development data was gathered on five occasions, using traditional assessments of participants' literacy proficiency and a researcher-developed tool to gather longitudinally stable data on participants' literacy practices. This tool used similar questioning to the *LPALS* protocol, asking participants if they ever engaged in a particular practice, and if they did, asking them to use a five point scale to show how frequently they did so. However, the *LSAL* asked fewer questions, focused on broader practices, and gathered less specific information in order to ensure the stability of the tool over time. The data from this tool showed increases in many participants' literacy practices over the course of the study, contributing new knowledge by suggesting that adults' literacy continues to develop after leaving formal education. Reder demonstrated a high correlation between participants' literacy proficiency and their engagement in literacy practices ($p<.0001$, p. 79), and found that participants who had attended additional education programs—such as an adult literacy course—increased their literacy practices even though they did not tend to improve their overall literacy proficiency. Reder proposes that participants showing increases in literacies engagement may demonstrate improved literacy proficiency over a longer period, and suggests that changes in literacy practices may be a more valid and realistic way of measuring adult literacy growth than improved achievement on formal literacy proficiency tests.

Both of these studies showed that as the adults participated in programs to improve their literacy skills they increased the ways in which they used print literacies in their daily lives. In short, these studies suggest that an improvement in literacy skills through participation in an intervention, even for adults with prolonged and entrenched literacy difficulties, transfers to life-wide changes in literacy engagement. No studies were found that used such a tool with primary-aged students to measure changes in their literacy practices as they progressed through an intervention. This highlights the need for research exploring the extent to which children transfer the skills they have developed through an intervention to the application of these skills in contextualised literacy practices.

In this section, I have discussed how the assessment of literacy development in school settings includes a range of formal and informal tools. I have also identified that research studies often utilise narrower approaches to assessment grounded in theoretical definitions of literacy-as-skills or literacy-as-practices. Alternate research designs may incorporate a range of tools to gather information about affective changes and skill improvement through an intervention, and may also use qualitative interviews to elicit participants', parents', and teachers' perspectives on an intervention. Such interviews may provide data on changes in participants' uses of literacies, though research using specific tools to collect and compare literacy practices data over time appears to be limited to adult literacy learners, pointing to a gap in the literature on assessing children's literacy growth over time through measuring their changing literacy practices.

2.5   Chapter summary

This chapter has outlined sociocultural, cognitive, and meaning-centred theories on literacy acquisition, difficulties, intervention, and assessment. It has discussed the contributions each paradigm has made to the study of literacy, and demonstrated that no single lens offers a complete explanation for the literacy acquisition process. It highlights the paucity of literacy theories drawing from both sociocultural and cognitive paradigms.

Support for a balanced approach to literacy pedagogy was identified in the Australian Curriculum. Examples of literacy intervention research studies that drew principles or methods from more than one paradigm were discussed, and these appeared to hold promise for the exploration of complex questions about literacy development. However, few studies were found that applied a balanced or broad theoretical perspective throughout their design.

Literacy assessment, including tools for measuring progress through an intervention, was also discussed, and research studies were critiqued to show that whilst some study designs conceptualise literacy development using more than one dimension, few studies have attempted to compare students' literacy practices over time to measure their response to intervention, and none were found that used a measure of literacy practices over time with primary-aged students.

This critical review of literacy acquisition and intervention research has identified two research gaps: the first in literacy intervention studies grounded in a socio-cognitive perspective; and the second in socio-cognitive methodologies and tools that enable the collection of data on primary students' skill development and their contextualised uses of literacies over time. The following chapter will explain the specific socio-cognitive theoretical frame used to conceptualise and design this thesis, and demonstrate how this bifocal view is evidenced through the methodological and analytical choices made in this study to explore how literacy interventions impact on Victorian primary students' wider literacy development.

3. Methodology and methods

This chapter develops the theoretical position detailed in the previous chapter, and outlines and justifies the methodological and analytical approaches used in this thesis. It begins by explicating the socio-cognitivist ideas underpinning this thesis and describing the theoretical frame used to conceptualise this study. Next, it explains the research methods and analytic techniques drawing from this frame, and finally, discusses ethical practice.

3.1 A theoretical frame

In this section, I outline the principles underpinning the theoretical perspective taken in this thesis. I then discuss the works of three groups of scholars whose socio-cognitive theories and concepts in the fields of reading pedagogy and print literacy acquisition were drawn on in the design of this study. I build on these to construct and describe the theoretical frame for this thesis.

This thesis employs a socio-cognitive lens which expands the examination of literacy difficulties and interventions beyond the pedagogical level. In developing a theoretical frame to explicate this lens, I was conscious of Robinson and Lai's (2005) four standards for educational theory in research: accuracy; effectiveness; coherence; and improvability. In chapter two I argued that no one theoretical lens explains or provides solutions to print literacy difficulties, reasoning that it is more accurate to incorporate a number of well-established factors contributing to literacy difficulties and remediation, as demonstrated through substantial research evidence from sociocultural, cognitive, and other paradigms. In the following section I model the ways in which these diverse perspectives on literacy difficulties relate to and complement one another, and describe a broad yet coherent theoretical framework for the literacy acquisition process. This flexible framework enabled me to utilise a range of data collection tools to gather participants' perspectives on how and why literacy difficulties occur, and how best to respond to them. I tested the efficacy of this framework in the course of data collection and analysis, developing an inductively derived and situated model of literacy change which is discussed later in this chapter in the section on data analysis.

Existing theoretical models that draw from both sociocultural and cognitive dimensions include those theorising what reading is (Purcell-Gates et al., 2004), what effective readers do (Freebody & Luke, 1990) and how reading and print literacy are acquired (Purcell-Gates et al., 2004; Ruddell & Unrau, 1994, 2004). The Four Resources model (Freebody

& Luke, 1990; Luke & Freebody, 1999) describes the literate practices required to participate in society, and conceptualises reading as comprised of four resources that constitute successful literacy performance: breaking print and other codes; making meaning from texts; using texts purposefully; and critically thinking about texts. The emphasis of this predominantly sociocultural model appears to relate to Freire's (2000) belief that skills—such as decoding words—alone do not constitute reading, rather that students need to read the world as well as the word.   The Four Resources model acknowledges that cognitive skill use and development are necessary components of the reading process, in tandem with the other three resources in this model.

The Four Resources model was designed "to provide an accessible and inclusive framework for discussions of literacy education, while at the same time affording a range of pedagogical strategies and frameworks for teaching literacy and for understanding various disciplines' orientations to literacy education" (Freebody, 2007, p.35). These design intentions are evident in research applications of the model, such as in the analysis of literacy policies (Stevens, 2003), or the appraisal of school and classroom pedagogies (Luke, Dooley, & Woods, 2011). Whilst a useful pedagogical framework, the Four Resources model was not designed to explain literacy difficulties or provide guidance for how they should be addressed, and consequently is seldom used to frame research in these areas. Those who have drawn on this model when researching the literacy development of learners with specific difficulties or disabilities often pay particular attention to the code breaker resource in order to diagnose and provide remediation for these learners' needs (e.g. Morgan, Moni, & Jobling, 2006).

Ruddell and Unrau's (2004) socio-cognitive model describes how students construct meaning from text, and focuses on the pedagogical processes occurring between the teacher, the student, and the text in the classroom learning environment.
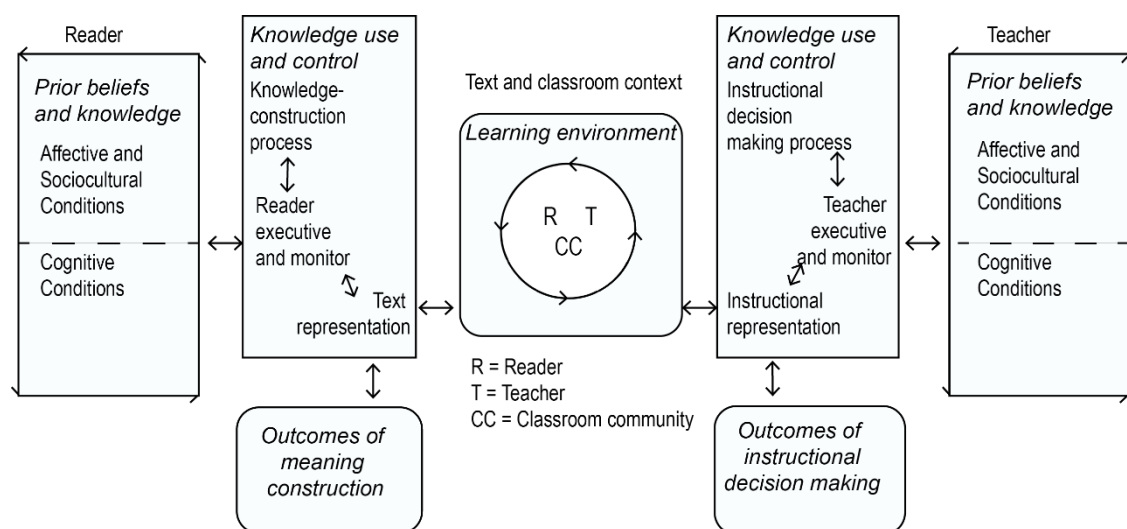
Figure 3.1. Reading as a meaning-construction process: the reader, the text, and the teacher. Simplified from "Reading as a meaning construction process: The reader, the text, and the teacher" by R. B. Ruddell and N. J. Unrau in R. B. Ruddell and N. J. Unrau (Eds.) *Theoretical models and processes of reading* (5th ed., p. 1465), 2004, Newark, DE: International Reading Association. Copyright 2004 by the International Reading Association.

Figure 3.1 shows a simplified version of Ruddell and Unrau's (2004) model, which theorises the interrelationships between cognitive and sociocultural knowledge, skills, and beliefs, within meaning-centred classroom literacy events. This model is of note as it considers both students' and teachers' factors as important elements. Students' and teachers' prior beliefs and knowledge are comprised of: sociocultural factors influencing students' reading and teachers' instruction, including their affective stances towards reading and their sociocultural values and beliefs; and cognitive conditions, including students' and teachers' background knowledge, skills, strategies, and schemata or organisational representations for understanding text types. Ruddell and Unrau theorise that students' and teachers' prior beliefs and knowledge interact in the context of classroom reading events, during which teachers draw on these resources to make instructional decisions, and students to construct knowledge. Both parties' outcomes may include increased text and content knowledge, interaction experiences, and affective changes; whilst teachers' outcomes may also include insights into the reader, and reflection on their own instructional choices.

Ruddell and Unrau's (2004) model is useful for this study because it enables an examination of classroom reading pedagogies with a wide theoretical lens, acknowledging that sociocultural and/or cognitive factors on the part of students and/or teachers can impact on the process of gaining meaning from text. This model therefore suggests areas for interrogation and investigation when teachers and students experience difficulties with

teaching and/or learning reading. However, it does not engage with how to improve identified areas. It has a specific focus on the act of classroom reading instruction, and does not acknowledge the roles that school and government policies and curriculum mandates have in influencing pedagogical offerings in the classroom, nor does it engage with deeper cognitive, medical, and socioeconomic factors which may contribute to literacy difficulties. In addition, the authors' description of this model limits sociocultural understandings to affective stances, and beliefs and values about reading, and does not explicitly engage with differences in the ways groups of people practice literacies. Research studies drawing on Ruddell and Unrau's socio-cognitive model as a theoretical frame typically use it in conjunction with other theories or models. For example, Fletcher, Greenwood, Grimley, Parkhill, and Davis (2012) draw on both socio-cognitive and sociocultural theories in their research on guided reading pedagogies; whereas Matthews and Cobb (2005) draw on individual developmental, and sociocultural theories, as well as Ruddell and Unrau's model, in their analysis of children's socially mediated literacy events.

Purcell-Gates et al.'s (2004) model of print literacy development theorises the relationship between cognitive skills acquisition and people's uses of literacies, and is similar to the Four Resources model in that it positions print literacy skills as one component of broader literacy development. However, it is less specific, and does not define reading with the level of detail that the Four Resources model does, or contain the detailed pedagogical description that Ruddell and Unrau's (2004) model does. Yet Purcell-Gates et al.'s model is conceptually broader, offering an extension of the socio-cognitive perspective beyond literacy pedagogies to the outcomes of instruction, and contending that the contextualised use of literacy is the most meaningful outcome of literacy improvement. Purcell-Gates et al. also focus specifically on the literacy development of people who find literacy acquisition challenging, highlighting the need for this population to access targeted skills instruction as well as to use these skills in meaningful and contextualised literacy events.

The theoretical frame for this thesis is grounded in a broad understanding of literacies and their acquisition, which draws principles from the three models discussed above. It includes a clear acknowledgement that print literacy skills acquisition is an essential component of literacy competence and use, and positions a broad grasp and use of literacies as the ultimate goal for literacy instruction. Of the three socio-cognitive models discussed, this thesis draws most closely from the work of Purcell-Gates et al. (2004) as it

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focuses on literacy difficulties and interventions, and highlights the importance of contextualised outcomes of literacy interventions.

The theoretical frame underpinning the conceptualisation and design of this thesis methodology incorporates a number of interacting factors influencing literacy development, as identified through the literature review. In addition to the pedagogical components raised by Freebody and Luke (1990), Purcell-Gates et al. (2004), and Ruddell and Unrau (2004); the frame also draws from Bronfenbrenner (1977), and Bronfenbrenner and Ceci's (1994) ecological systems theories in order to consider the individual learner in relation to their learning environments and broader social contexts. Figure 3.2 depicts this theoretical frame which expands existing socio-cognitive theories to encompass factors beyond pedagogy and the instructional environment, using nested levels to show major types of sociocultural, cognitive, and other factors that may impact on students' literacy acquisition.

Broader societal influences

School system influences

Learning opportunities
and pedagogies

Research
findings

Curriculum

Funding

Policy

School

Intervention

Classroom

Individual
factors

Affective, Cognitive
Medical, Other

Community

Home

Health
policy &
funding

Social
policy &
funding

Political
trends

Economic
trends
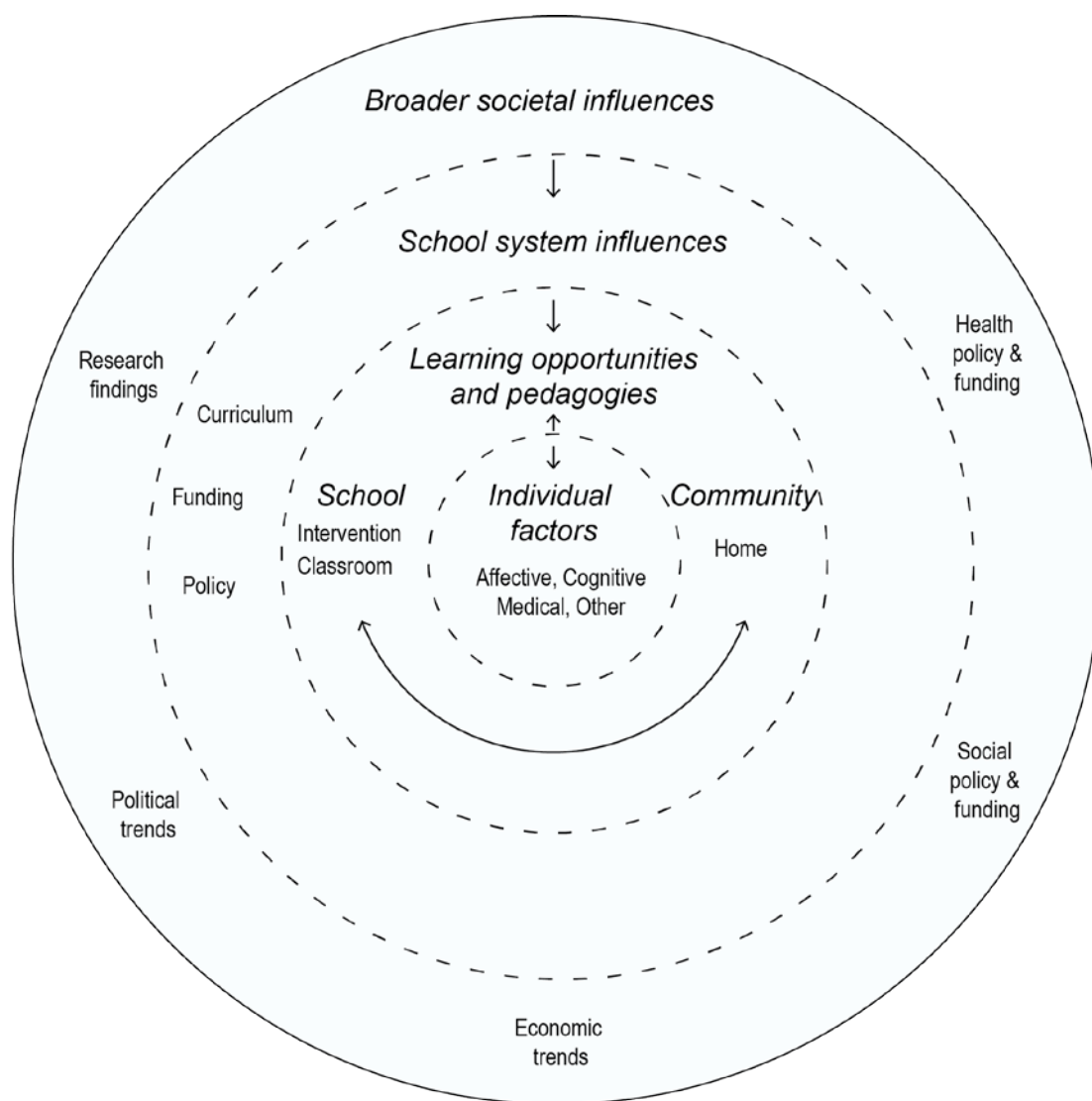
Figure 3.2. Conceptual model of intrinsic and extrinsic factors influencing literacy acquisition and remediation.

As Figure 3.2 shows, at the individual student level, intrinsic factors impacting on literacy development comprise: affective stances towards reading; literacy specific cognitive abilities or difficulties; more generalised cognitive abilities or difficulties; medical or sensory challenges; and other factors such as emotional trauma or intergenerational disadvantage—which may be sociocultural and/or socioeconomic in origin, but manifest as difficulties for individual students. Difficulties in any one of these areas may contribute to challenges in acquiring print literacy, and difficulties in multiple areas may signal the need for compounded intervention and support.

At the learning opportunities level, the student is a participant in a number of formal and informal settings (Bronfenbrenner, 1977; Heath, 1983; Moll et al., 1992). In this thesis, literacy learning in three contexts—the home and community, the school and classroom,

and the intervention/s—is explored. This focus differs from many studies of literacy improvement in which the classroom or intervention pedagogy is posited as the primary element enabling literacy change (e.g. Comber & Kamler, 2005; Hiebert, 1994; Iversen & Tunmer, 1993). The model outlined in Figure 3.2 takes a wider perspective, acknowledging that classroom teaching and intervention programs are located in schools which may mandate particular approaches. Similarly, family learning environments are part of particular cultural, ethnic, and socioeconomic communities, with their own beliefs and practices about literacy acquisition and difficulties. A curved arrow shows the interrelationship between these learning settings.

At state and national levels, school system factors such as policy, curriculum, and funding influence pedagogies in literacy education and provision for students with literacy difficulties. At a broader societal level, trends and emphases in literacy instruction and intervention shift over time in response to research findings, and to political and economic trends. In addition, wider social, health, and economic policies impact on the health and wellbeing of families and students, which may in turn have an effect on their literacy learning.

The straight arrows in Figure 3.2 show how these extrinsic and intrinsic influences on literacy development interact with each other to provide more and less conducive environments for literacy acquisition. Inward arrows show the influence of economic, societal, and political factors on school systems, learning environments, and individual learners. Bidirectional arrows show the interrelationships between individuals and their learning environments.

This theoretical model, incorporating a range of possibilities contributing to literacy difficulties, and therefore a range of responses to these, framed the development of a broad data gathering strategy for this thesis, which approximated the nested structure in Figure 3.2 by gathering data at individual, learning environment, and school system levels.

This section has explained how a socio-cognitive theoretical lens, grounded in the earlier work of Freebody and Luke (1990), Ruddell and Unrau (2004), and Purcell-Gates et al. (2004), enabled the development of a broad theoretical model incorporating cognitive, sociocultural, and other explanations for literacy difficulties. The following section describes and justifies the methodologies used in this thesis to explore how literacy

interventions contribute to Victorian primary students' literacy development at individual, school, and State levels.

3.2 The research process

This section outlines the research design for this thesis, and the strategies employed to gather and analyse data. It then details the participants and procedures, and concludes by discussing ethical considerations.

3.2.1 Methodological approach

In this section I discuss and provide a rationale for my use of a mixed methods research design to explore the phenomena of literacy interventions in Victorian schools.

Yin (2009) contends that mixed methods "can permit investigators to address more complicated research questions and collect a richer and stronger array of evidence than can be accomplished by any single method alone" (p. 63). Whilst much literacy research uses methodological approaches grounded in one paradigm, mixed methods approaches are becoming more common; for example, in the literature review I identified studies that used a range of data to answer more complex questions about students' progress as they move through and beyond literacy interventions (e.g. Hill et al., 2002; Jesson & Limbrick, 2014; Parkhill & Davey, 2012; Rennie, 2016). For this research study, I chose a mixed methods design to explore literacy interventions and their impact on literacy development at State, school, and individual levels.

The specific mixed methods approach used was a concurrent embedded design (Creswell, 2009), in which both quantitative and qualitative data were gathered to answer related questions about literacy interventions. Figure 3.3 shows the elements of this design.

quant

QUAL (quant)
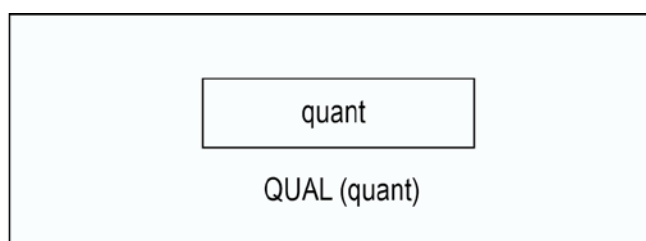
Figure 3.3. Concurrent embedded mixed methods design. Adapted from *Research design: Qualitative, quantitative, and mixed methods approaches* (p.210), by J. W. Creswell, 2009, California: Sage Publications. Copyright 2009 by Sage Publications.

Creswell (2009) contends that through a concurrent, embedded design, "A researcher can gain perspectives from the different types of data or from different levels within the study"

(p. 215). In this thesis, one quantitative data set provided a broad survey of literacy intervention use in Victoria. Qualitative data sets enabled rich and thick descriptions of literacy interventions in particular school sites and for certain students, whilst a smaller embedded quantitative data set described these students' measured literacy achievement. Freebody (2007) and McNaughton (2011) argue that literacy research is of the most value when it is situated in actual school and classroom settings, and in this thesis the case studies situate three literacy interventions in their specific school contexts, providing an in-depth investigation of two Victorian schools, the three literacy interventions offered at these sites, and six students' experiences and literacy trajectories as they progressed through and beyond these programs. The data sets on these students' literacy development included qualitative interview data, quantitative literacy assessment data, and a measure of their contextualised uses of literacies.

The mixed methods design for this thesis included perspectives from multiple participants, and utilised statistical, narrative, and inductive analysis techniques. This eclectic approach was designed to explore literacy interventions and their impacts in multiple ways, and to highlight the perspectives of different key participants.

3.2.2 Strategies of inquiry

This section explains the choice of case study research, and the decision to use a collective, nested case study design. It justifies the use of surveying and interviews as strategies of inquiry, and examines the validity, reliability and credibility of these. The role of the researcher is unpacked, and analytical choices are discussed.

3.2.2.1 Case study research

The major research method used in this thesis is case study research, which focuses in depth on particular phenomena in context, enabling the reader to learn from the nuances and particularity of the context. Yin (2009) notes that case study research is especially useful for focusing on how and why questions and further suggests that case study research allows phenomena to be examined in depth and in their real life contexts. In this thesis, the phenomena of interest are literacy interventions and their impact on students' literacy development. A major goal of the research was to understand literacy interventions from the perspective of the different participants involved in them—the students receiving the intervention, their parents, and the school staff involved—in order to develop an understanding of how and why literacy interventions may or may not contribute to literacy improvement in particular settings and for specific individuals. Of related interest were the

prevalence and types of literacy interventions for primary aged students in Victoria[6], and why and how examples of these programs were implemented in specific Victorian schools.

A collective, nested case study design was selected to explore literacy interventions and their impact at State, school and individual student levels. A collective case study uses multiple cases of the same phenomenon to investigate each individual case, and to develop theories about the wider phenomena (Stake, 2000). A nested design enables broader and more specific instances of a phenomenon, and the interrelationships between these levels, to be examined. The collective, nested case study design in this thesis enabled specific examples of literacy interventions to be understood at an individual level, and also contextualised as examples of literacy interventions at a broader level. Vaughan describes how "illustration as to how a phenomenon occurs in the circumstances of several exemplars can provide valuable and trustworthy knowledge" (Vaughan, in press, cited in Stake, 2000, p. 444), and such knowledge was sought across the three layers of data in this study.
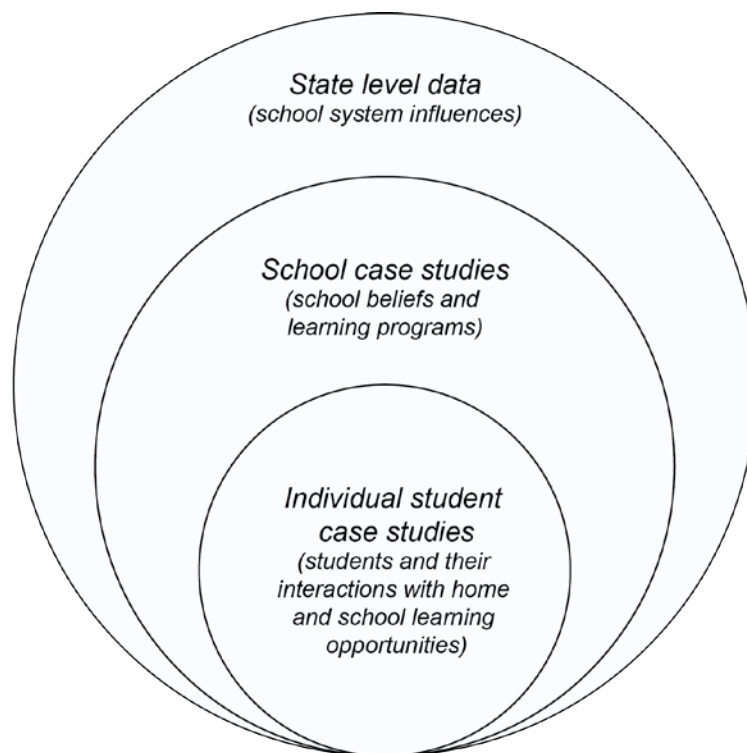
Figure 3.4. Nested collective case study design to explore literacy interventions at State, school, and student levels.

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[6] Victorian primary education is comprised of a preparatory (prep) year, and years one to six, catering for students from approximately five to twelve years old.

Figure 3.4 represents the nested collective case study design employed in this thesis. The State level case study layer was exploratory, using quantitative data to understand the landscape of literacy intervention provision for primary students in Victoria, and addressing the question: What is the prevalence and scope of print literacy intervention provision in Victorian primary education settings?

The types of literacy interventions offered in a sample of Victorian schools were matched with schools' demographic information, enabling relationships about literacy intervention provision in different school contexts to be identified. Existing research in the area of schools' intervention provision frequently provides data only on interventions meeting certain guidelines (e.g. Meirs et al., 2013; Purdie & Ellis, 2005), or else it only focuses on schools and programs deemed to be effective (e.g. Louden et al., 2000). In this thesis the focus of the State level data collection was instead on schools' reported literacy intervention use, enabling an understanding of whether offering literacy interventions was an isolated or a common practice, and whether it was more prevalent in particular kinds of schools. This data set also suggested a range of possible programs and school settings to explore in more depth. Finally, this data enabled the case study schools and the interventions they offered to be contextualised within an understanding of the broader patterns of literacy intervention provision in Victorian schools.

The second layer—school level case studies—explored the literacy interventions offered by two school settings that were contrasting with regard to their sector, size, location, and the relative socioeconomic makeup of their respective school populations. This layer addressed two questions: (i) How do participating students, their parents, classroom teachers, literacy intervention teachers, and school principals perceive print literacy interventions at a school level?; and (ii) What are the factors impacting on schools' intervention implementation?

The third layer investigated the literacy intervention experiences and literacy development of six students, three from each school setting, including students of both genders and a range of ages, who had participated, or were participating, in one or more of three different interventions to improve their print literacy. The individual case studies explored the following questions: (i) How do participating students, their parents, classroom teachers, literacy intervention teachers, and school principals perceive print literacy interventions at individual levels?; (ii) What are the factors impacting on individuals' intervention

success?; and (iii) To what extent does participation in a print literacy intervention impact on students' home, school, and community literacy development?

These school and student cases offered balance, variety, and the opportunity to learn from the experiences of diverse participants in contrasting settings. The data sources across the three layers of the study included: schools' online data; principal questionnaires (see Appendix A); participant interviews (see Appendix B for one set of indicative questions); the case study students' school assessment data; and a literacy practices questionnaire (LPQ), which is discussed in more detail later in this chapter. These multiple sources and perspectives were included to enable the examination of literacy interventions and their impact from a number of angles. Rigour, breadth, depth, and credibility were goals which I hoped to achieve through the bricolage of multiple methods, types of data, and participants.

3.2.2.2 Surveying

According to Creswell (2009), "A survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (p. 145). Surveys and questionnaires are relatively quick and inexpensive techniques for gathering data from multiple respondents (Ary, Jacobs, Rasavieh, & Sorensen, 2006), enabling numeric and statistical analysis, and, if certain conditions are met, generalisation of the findings to a wider population. I used survey instruments in two different ways in this thesis. First a questionnaire and an online data scan were employed to probe schools' use of literacy interventions in Victoria. In the second, qualitative phase of the study, a LPQ was designed and utilised to explore the case study students' engagement in literacy practices at home, school, and in the community.

I designed an online, anonymous questionnaire to gather information about Victorian primary schools' use of literacy intervention programs. The questionnaire was intended to gather information from principals about their school demographics, general literacy programs, proportion of students with reading difficulties, types of interventions they offered (if any), and the advantages and disadvantages of those interventions. The questionnaire was trialled with principals and teachers known to me and adjustments were made based on their feedback. For example, I included section headings as one teacher had suggested clarifying the emphasis of each set of questions. Through the questionnaire I hoped to gain an understanding of the prevalence of literacy intervention use in Victorian primary education. I also hoped to gain an understanding of the types of interventions used

in Victorian schools, and schools' reasons for choosing particular programs, as I would be investigating some of these in more depth in the school and student case studies phases. Whilst some researchers (e.g. Dillman, 2006) found that emailed surveys had better response rates, I received a poor response and completion rate for this questionnaire, and so sought an alternate strategy for gathering this information. Nevertheless, I retained the initial questionnaire findings as one data source in the study, as they provided some qualitative information not gained through the alternate sources. The very small sample size of nine mostly completed questionnaires meant that this data could in no way be considered representative of Victorian schools. Nonetheless, it provided some insights into the types of interventions used in a small set of schools, and reported participating principals' perceptions of the advantages and disadvantages of these programs.

The subsequent strategy for gathering data was an online data scan to survey Victorian schools' literacy intervention offerings. I developed a protocol to gather data from three publically available online sources—schools' websites, schools' data on the My School website (ACARA, n.d.g), and schools' annual reports (Victorian Registration and Qualifications Authority, n.d.)—for a randomised sample of 150 Victorian schools offering primary education. Using publically available data to understand phenomena is a developing field, as previously such information tended to be gathered through questionnaires (e.g. Rohl & Milton, 2002). Some recent studies have used data on the My School website for comparative statistical studies, for example, to explore correlations between socioeconomic status, school type, and student achievement (e.g. Li & Dockery, 2014). However, I did not find other studies that related data from different online sources to answer questions about schools' programs. An advantage with an online protocol was that a randomised sample could be drawn and data could be gathered for every school in the sample, which would not be possible using an alternate technique requiring responses from human participants. A disadvantage was that further explanatory information could not be elicited; for example, I was seldom able to determine why schools offered particular interventions from the information they provided on these online sources.

The literacy intervention data gathered in this online scan was what the schools themselves had provided on their websites and in their annual reports. I was conscious that this reliance on schools' self-report of providing literacy interventions could impact on the validity of the information provided; for example, I was aware it was possible that school websites may not be up to date, and may therefore reference programs no longer offered.

However, during the data scan I was able to verify that most school websites had been recently updated, and was confident that schools' annual reports would contain accurate information due to the legal status of these documents. Unfortunately for this study, providing information about additional support programs, such as literacy interventions, is not mandatory on school websites or in annual reports. It is possible that some schools may choose not to disclose the intervention programs they offer, because, for example, they have other priorities for the information included on their website and in their annual reports.

The sample size of the online data scan yielded data that was moderately representative (80% CI) of Victorian schools offering primary education. Overall, this method, with its randomised sample, provided a more reliable overview of literacy intervention use in Victorian primary education than the principals' questionnaire with its poor response rate.

3.2.2.3 Literacy development data

I gathered data on students' literacy development through and beyond their interventions using three methods: the LPQ; schools' assessment data; and qualitative interviews. These contrasting approaches fitted with my socio-cognitive orientation, as I sought to record and compare both sociocultural and cognitive evidence of literacy improvement, and to gain an understanding of the extent to which participating in the intervention had supported the student to make life-wide literacy progress. These data sets also enabled questions to be posed about relationships between different kinds of literacy development, for example, whether an improvement in print literacy assessment results also translated to increased engagement in print literacy practices. In the following sections, I describe and provide a rationale for my use of schools' assessment data and the LPQ, and will discuss the qualitative interviews later in this chapter.

3.2.2.3.1   Literacy practices questionnaire (LPQ)

I developed a LPQ to explore how the case study students used literacies at home, in the classroom, and in the community. This provided a broad and contextualised measure of their literacy development to complement the more formal school assessment data. As identified in the literature review, others have used such questionnaires to measure adult literacy development (Purcell-Gates et al., 2004; Reder, 2009, 2011), though no studies have been found that used such a tool to measure younger students' literacy change in response to an intervention. I chose to design a questionnaire to explicitly expand participants' conceptualisation of literacy to include environmental, digital, and other

practices, to focus our discussions on what students did with literacy, and to be able to compare participants' responses over time. In particular, I was hoping to explore the ways in which students' participation in a literacy intervention had impacted on the ways in which they used literacies in broader contexts, and for wider purposes.

A list of children's common literacy practices was developed based on my professional observations of student learning over the course of my education career, and in consultation with my first supervisor. The list included: reading practices, including reading books and a range of other media; writing practices, including everything from making lists and personal writing to more formal and directed writing tasks; interactive oral language practices, including cooking and games; and digital practices, including engaging with a range of information technology tools. Table 3.1 lists these practices.[7]

Table 3.1

Literacy practices in the LPQ, grouped by type

Digital	Practical	Non-traditional reading	Traditional reading	Other print literacy	Writing
Tablet	Cooking	Menus	School book	Library	Own choice
Computer	Art/craft	Signs	Other book	Listening to story	Lists
Console	Board games	Labels			Directed writing
Camera	Working outside	Junk mail			
Mobile		Magazines			

The list of practices shown in Table 3.1 was not intended to be definitive, but aimed to gather descriptive information about students' day to day literacies. Five step Likert scales were devised to enable participants to indicate how frequently the case study students engaged in each of the listed practices, and how positive they felt about engaging in each practice. These were represented pictorially on laminated cards. Pictorial interview prompts were created by downloading open source internet images depicting an example of each of the practices, and making these into laminated cards which were then used in the interviews to support students to describe and discuss their own literacy practices (see Appendix C for examples of the Likert scales and picture prompts).

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[7] When grouping the practices for analysis, I used the term 'traditional' for practices involving the reading of formal print texts such as library books, instructional readers, and the term 'non-traditional' for reading everyday informal texts such as junk mail or road signs. However, these terms were not used in the course of the interviews.

The LPQ consisted of five questions for each of the 21 practices:

1.   Do you ever… (work outside/use a tablet etc.)? (adapted from Purcell-Gates et al., 2004; Reder, 2009)

2.   How often do you do it? (Reder, 2009)

3.   Where (at home, at school, somewhere else)?

4.   How do you feel about it?

5.   Can you give me an example?

The LPQ provided quantitative information about the number of practices students engaged in, the frequency with which they did so, and their positivity or feeling towards doing so. In addition, it provided qualitative examples of students' participation in these literacies. All of the participants reported that students engaged in most of the practices at some time in and/or out of school, suggesting that its items were valid examples of the ways in which students engage in literacy practices. However, the reliability of individuals' responses over time could not be guaranteed, particularly with the younger students who appeared to best remember recent literacy events. The reliability of responses was strengthened through the use of this tool with students, parents, and teachers, in order to get a fuller picture of the range of literacies students engaged with at home and at school.

3.2.2.3.2   Student assessment data

I gathered evidence of students' changes in literacy achievement through the collection of their school assessment data in order to measure their literacy skill improvement through and beyond their intervention. I chose to request the schools' data for each case study student rather than undertaking my own assessments. I acknowledge the possibility that there may have been differences in assessment administration and procedures between the case study schools, teachers, and other professionals in this study. However, I chose to utilise the school's assessment data as it was this information that had identified each student for intervention; and it was also the school's data that was used to evaluate students' progress and achievement in their intervention and classroom environments. As my focus of interest was students' literacy development in these school contexts, I judged that it was more appropriate to work with the assessment data generated and used for decision making in these settings.

The assessment data provided a measure of students' literacy-specific cognitive skill difficulties and improvement. This strengthened the larger literacy development data set gained through interviews, as I aimed to consider students' skill achievement alongside participants' qualitative perceptions of their improvement, and was mindful of Brooks' (2007) caution that qualitative responses alone are inadequate when appraising learning interventions as students and parents usually speak very positively about the extra help they received.

The students' literacy development data was to some extent conceptualised using a positivist paradigm, as I used a range of sources with the goal of building an accurate picture of students' literacy development and trajectory over time. The data sets achieved a level of reliability, for example, by including information from multiple assessments and by gathering literacy practices data from a range of participants; and construct validity, for example, through the use of teachers' classroom observations and contextualised literacy practices data. I triangulated data from these sources to describe each case study student's literacy development over time. I did this by considering the case study students' measured literacy achievement in relation to their year level achievement expectations, their contextualised uses of literacies, and participants' perceptions of their progress. I also searched the interview data and asked questions in subsequent interviews for explanations of divergent results—for example, to explore why a student had improved in one of these areas but not in others.

3.2.2.4 Interviewing

An interview is essentially an encounter between two or more people to discuss a specific topic. Charmaz (2003) explains that "Qualitative interviewing provides an open-ended, in-depth exploration of an aspect of life about which the interviewee has substantial experience, often combined with considerable insight" (p. 312). Interviews are a more flexible instrument than surveys (Ary et al., 2006), allowing for questions and responses to be further explained and explored. Qualitative interviews were chosen as a major strategy of inquiry for this thesis in order to gather emic perspectives of literacy interventions.

Interviews can be unstructured, semi-structured, or structured. I used a semi-structured approach as I had particular questions and topics of interest to ask the participants about. I developed indicative questions for each set of participants, within which there was space to

explore topics, to elaborate on questions, to leave out others, and to add ideas not covered through the questions.

As Rapley (2004) notes, interviewers are always active. In this study, both interviewer and interviewee are best "seen as actively and unavoidably engaged in the interactional co-construction of the interview's context" (Holstein & Gubrium, 2003, pp. 14-5). When interviewing the participants in this study, I presented myself as an interested researcher wanting their perspectives on literacy interventions, and was also open about my background as a classroom teacher, literacy intervention teacher, and literacy coach. I aimed for reciprocity rather than neutrality, taking Rapley's advice to "just get on with interacting with that specific person" (p. 20). At the same time, I was aware that as the interviewer I held a degree of control. In an effort to distribute this control a little, I shared the indicative questions with the interviewees before the interview, asked if there were other aspects they wished to discuss, and made it clear that questions could be avoided or not answered. I also sent all interview transcripts to the adult participants, inviting them to change or omit anything they wished to.

I believed it was important to elicit the perspective of the case study students about their experiences in literacy interventions, particularly as children's beliefs, understandings, and perspectives are not well represented in studies of literacy remediation. Eder and Fingerson (2003) describe the value of interviewing children, explaining that "One clear reason for interviewing youthful respondents is to allow them to give voice to their own interpretations and thoughts rather than rely solely on our adult interpretations of their lives" (p.33). In addition to seeking students' perspectives on the intervention they had participated in, I was also interested in their understandings of their literacy development. I was conscious that current teaching practices encourage a certain amount of metacognition, or knowledge and reflexivity about one's learning, through common school practices such as learning objectives, 'I can' statements, self-evaluations, sharing of assessment data, and parent/student/teacher interviews; and therefore I thought it was likely that students would have a vocabulary for, and some experience in, talking about their literacy development.

Whilst Corsaro (2015) and Eder and Fingerson (2003) recommend interviewing students in focus groups, I was aware that students who have struggled or continue to struggle with learning may not wish to discuss this in front of their peers. For this reason I chose to

interview students individually or with their parents rather than in focus groups or as a classroom activity. I used as familiar a context as possible—for example, I chose rooms within participants' schools as interview locations, and I used students' own reading books as interview prompts to discuss their recent reading experiences.

A feature of this study design was repeated interviews with multiple participants to explore changes in the case study students' literacy development over time. These multiple visits also enabled a "stronger and richer knowledge base and understanding of the phenomenon…, trust between the participants and the researcher, and… permit[ted] checks over time" (Charmaz, 2003, p. 318). The purpose of these multiple interviews and participants was not necessarily verification of 'the facts'; but rather to build a broad and holistic understanding of the literacy interventions from multiple perspectives, and to enable "depth, detail and resonance" (Charmaz, p. 318) in the cases.

Unlike many case studies exploring student learning, this study did not include researcher observations. Eder and Fingerson (2003) recommend observations as a component of case study research with children, in order to strengthen the findings from interviews. However, I was most interested in the participants' own perspectives, which I explored through individual interviews over the period of the study. As an experienced classroom and intervention teacher, I believed that my observations might cloud the data, putting my professional lens on literacy interventions and literacy development, rather than exploring these phenomena through the participants' eyes. In addition, I felt that by using multiple participants' perspectives, the case studies would be sufficiently robust without the addition of classroom or intervention observations.

Interview transcripts were checked by the adult participants for construct validity, and sources were cross checked for consistency, producing, for the most part, narratives with clear and obvious factors influencing students' literacy development. Divergent voices and ideas were retained in the narratives: for example, when parents, teachers, and students offered different ideas as to the locus of a student's literacy difficulty, or the extent of a student's literacy progress, these different perspectives were included in that student's case narrative. Whilst the power dynamic of interviewer and interviewee can be seen to produce particular discourses—for example, when students respond in a particular way in order to be seen as a 'good student'—I, like Davies (1989), noticed unexpected and diverse answers in the students' data, which did not uphold a social desirability bias hypothesis.

I made a considered decision to not send the constructed narratives and analyses of each case to the participants for their feedback. My reason for this was to protect the participants' privacy as these narratives and analyses were drawn from multiple sources with multiple participants. I had assured participants that I would do my best to keep their ideas anonymous and unidentifiable, yet could see that by sending the narratives and analyses for feedback that I would be inadvertently identifying people and data. For example, teachers would be able to see that parents were dissatisfied with the learning program, or parents would be able to see that teachers believed they were not doing sufficient reading with their child at home. When the study is completed, more general, thematic findings from the study will be presented both in written and oral form to interested institutions and participants, and those who wish to read their cases in more detail will be able to search for this thesis and articles arising from it online.

3.2.3   Analytical choices

The following sections describe and justify the inductive, narrative, and quantitative approaches used to analyse and present the data sets. Two interrelated approaches were used when analysing, interpreting, and presenting the school and student level data: one was to abstract broader themes and concepts across the cases; and the other was to look at each school and student case study as a narrative whole. Charmaz (2003) notes that inductive and narrative approaches are not mutually exclusive. These methods can rather be seen to complement each other each other using Giddens' (1984) double hermeneutic. The narrative analysis drew on the empathetic half of the this hermeneutic, using participants' own words and ideas to explain their perspectives; whilst the inductive approach—which culminated in applying a model derived from the inductive analysis back onto each case—enabled questions to be asked of the data, completing the double hermeneutic.

3.2.3.1 An inductive approach

The overarching aim of this study was to explore how literacy interventions impact on literacy development. In order to explore this question, I used an inductive approach to analyse the school and student case study data. This open approach allowed the key factors impacting on literacy development through an intervention to be identified across the data sets. I had not originally planned to use inductive analysis, and had constructed theoretical propositions (Yin, 2009) about connections I might find in the data before collection commenced. For example, I had posited that the content of the intervention

might impact on the extent to which students' life-wide literacy development improved. However, very early in the process of data collection it became evident that participants were reporting much broader and often unexpected ideas that focused less on the learning content of the intervention, or on students' literacy development, and more on organisational, attitudinal, and interpersonal factors associated with literacy interventions. In order to explore these ideas, I chose to use inductive analysis to identify these key factors impacting on literacy intervention provision and literacy development through an intervention in these school contexts and for these case study students. Through this inductive process, I developed a situated model that maps the connections between these factors. The model links to both sociocultural and cognitive theories of literacy, and also to broader perspectives on learning and educational organisation.

3.2.3.2 Multi-layered narratives

Another aim of the study was to understand the situated phenomena of literacy intervention in each school setting and for each case study student. This aim informed my decision to present these case study findings in the form of case narratives, using the participants' ideas and vignettes to document their experiences of participating in and working with literacy interventions, to communicate the complexity of achieving literacy change for students with literacy difficulties, and to enable comparison between and across the cases. I believed a narrative approach suited the research aim of exploring literacy interventions from the perspective of those in and close to them. Flyvbjerg (2004) explains that presenting a case with all its ambiguity and richness enables the reader to make meaning from the case, whilst Stake (2000) reminds us that a narrative case report "will be the researcher's dressing of the case's own story" (p. 456). Narrative accounts enabled me to document students', parents', and school staff perspectives, with the aim of allowing the reader an emic insight into the experience of literacy difficulties and literacy remediation. The multiple voices from each case were used to construct narratives of intervention provision in each school, and chronological narratives of the case study students' literacy trajectories. These narratives were built from summaries of participants' interviews and other data, my case notes and research journal, and interview vignettes. They offer a rich picture of literacy development and highlight the complex trajectories students with literacy difficulties navigate when developing their literacies.

3.2.3.3 Quantitative approaches

The two quantitative data sets—the State level online data scan, and students' literacy achievement data—required alternate approaches to data analysis comprising descriptive and other statistical analyses.

The online data gathering protocol aimed to provide information on literacy interventions at a State level, and to gain an understanding of what types of schools offered interventions, and what programs they offered. Descriptive and statistical analyses were carried out to explore patterns in this data set, and to examine the significance of differences in literacy intervention provision between schools from different sector types, of different sizes, with different levels of socio-educational advantage, and with different levels of reading achievement.

Students' school assessment data was a source for describing their literacy specific skills and difficulties on entry to their interventions. These data was also used to plot students' measured literacy development over time, and to consider their achievement in relation to the expected levels for their age or school year level. Students' assessment data sets were analysed in relation with their qualitative literacy development data to explore interrelationships, for example, between improved assessment results and more positive affective stances towards literacy.

This section has described and justified the research methodologies and strategies for data collection used in this study. The following section outlines the implementation of this research design.

3.3 Research design

This section describes the research process, detailing the sample and participants, and explaining when and how the strategies of enquiry were used.

3.3.1 Overview

Figure 3.5 offers a diagrammatic overview of the multiphase research design, showing how each phase and stage of the data collection process informed and contextualised the next. The following sections describe the procedures and processes for each phase and stage.
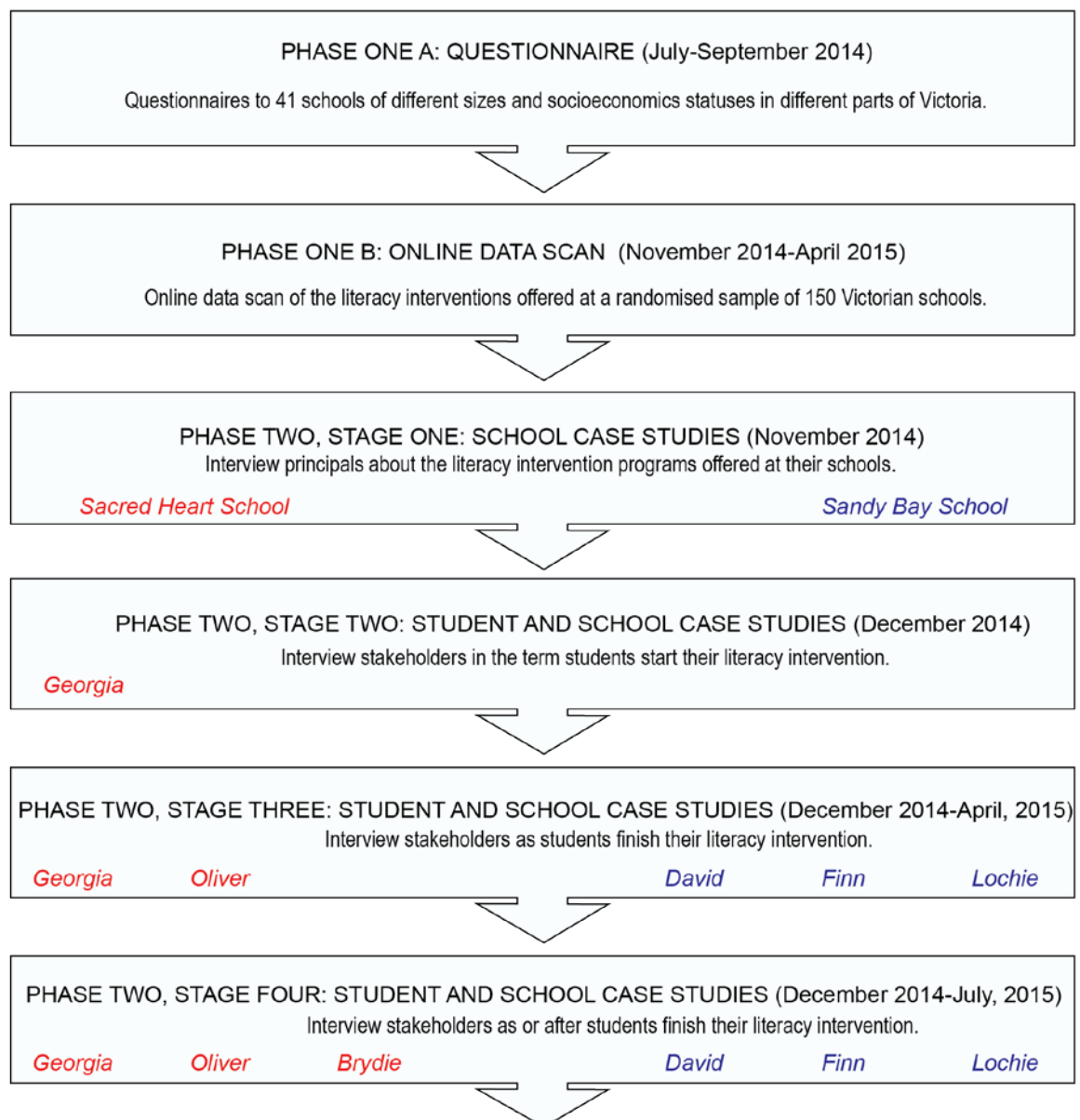
Figure 3.5. Overview of research phases and stages.

3.3.2 Phase one: State level data

This section describes the sample, tools, and procedures used to gather data on literacy intervention use in Victorian primary education. It comprises information about the principals' questionnaire and the online data scan.

3.3.2.1 Principals' questionnaire

3.3.2.1.1   Questionnaire sample

I selected a convenience sample of 100 primary school principals of rural and urban schools of differing sizes, and differing levels of socio-educational advantage in different parts of Victoria using information available through educational contacts (for example, school principals who were part of a literacy network or initiative), publically available

information on the My School website (ACARA, n.d.g), and the Australian Bureau of Statistics public data website (2014).

3.3.2.1.2 Questionnaire development

I developed an online, anonymous questionnaire to investigate the prevalence, and type of reading intervention use in Victorian Government and Catholic primary education (see Appendix A). This questionnaire asked principals demographic questions about their schools': Index of Community Socio-Educational Advantage[8] (ICSEA) number (ACARA, 2013); roll size; school sector type; and the number of students on the school roll who were reading one or more years below their chronological age in 2014. It also asked what general literacy programs and literacy interventions were offered in 2014, and posed an open ended question about the advantages and disadvantages of these interventions.

3.3.2.1.3 Questionnaire procedures

I emailed 41 questionnaires to principals in July, 2014, with the intention to continue questionnaire distribution in subsequent waves. Of these, 33 questionnaire links were opened, 25 questionnaires were started, and nine were mostly completed by early September, 2014 giving a usable response rate of approximately 22%. Of the mostly completed questionnaires, all participants provided answers to most questions, however no question was answered by all nine participants. Due to these poor response and completion rates, an alternative strategy was developed to gather data on Victorian schools' literacy intervention use. The questionnaire data set was retained in the study as it included explanatory information about the advantages and disadvantages of schools' chosen literacy interventions, which was not available in the subsequently used online data sources.

3.3.2.2 Online data scan

3.3.2.2.1 Online data scan sample

In 2014, there were 2223 Government, Catholic, and Independent schools in Victoria, 1782 of which provided general primary education (DEECD, 2014). I drew a randomised sample of approximately eight percent of these primary and primary/secondary composite schools using the following procedure. A complete list of schools in Victoria was obtained from the Australian Bureau of Statistics website (Australian Bureau of Statistics, 2014).

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[8] ICSEA is a national scale of school communities' socio-educational and socioeconomic advantage. ICSEA values are calculated using data on parental education and occupation, school location, and community socio-economic makeup. Schools' ICSEA numbers are primarily used for interpreting their NAPLAN data in relation to schools with similar levels of dis/advantage.

This list included school names, student type (primary, secondary, composite, special developmental, or language), funding sector, roll size, contact information, and an identifying number ranging from 1-2274. These identifying numbers were randomised using an online tool (Urbaniak & Plous, 2013). The list of randomised numbers was checked against the complete list, and closed schools, secondary schools, special developmental schools, and language schools were removed from the randomised list. The first 150 primary schools in the resulting randomised list formed the online data scan sample. Four of these either had no website or the school website was down for construction or repair for a period of more than a week. The next four schools on the randomised list were added to give a sample of 150 schools with functioning websites.

The following formula was used to calculate the sample size and the sampling error.

Population size = N
Margin of error = e
Z-score = z
Population proportion = p

$$Sample\ size = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N}\right)}$$

I used a confidence interval of 80%, which meant I used a z score of 1.28. I chose this interval rather than 95% as the aim of the online data scan was to give a broad overview of literacy intervention use in Victoria, and to contextualise the larger qualitative study. I used a margin of error of 5%. I used the population proportion 0.5 which gave an *a priori* estimate of a school offering a literacy intervention as equal probability. I used this as I did not have other evidence establishing alternate proportions of Victorian schools offering literacy interventions.

$N = 1782$
$e = 0.05$
$z = 1.28$
$p = 0.5$

$$150.0446 = \frac{\frac{1.28^2 \times 0.5(1-0.5)}{0.05^2}}{1+(\frac{1.28^2 \times 0.5(1-0.5)}{0.05^2 1782})}$$

A sample size of 150.446 has a confidence level of 80%, and a margin of error of 5%. This means that one can be 80% confident that a random sample of this size accurately represents the wider population of schools offering general primary education in Victoria. This sample size has a margin of error of 5%, a percentage that describes how much the data provided by a random sample of this size will differ from the data for the whole population. This sampling error means that in this study, the data from this random sample should not differ from the larger population of 1782 schools by more than 5%.

An additional check was performed to examine the fit of the sample. The proportions of Government, Catholic, and Independent schools within the sample were compared with the proportions of all schools offering primary education across Victoria, using statistics provided on the DEECD website (2014). Differences between the sample and State were calculated.

Table 3.2

Percentages of schools from each sector in Victoria and in the sample

	Victoria	Sample
Government	68%	63%
Catholic	22%	24%
Independent	10%	13%

Table 3.2 shows that the online data scan sample demonstrated comparable sector weightings with Victorian schools overall, with differences of up to 5%.

3.3.2.2.2   Online data collection protocol

For each of the 150 Victorian primary schools in the randomised sample, I read three sources of publically available online information: the school's website in 2014; its 2014 school data on the My School website (ACARA, n.d.g); and its 2014 annual report (Victorian Registration and Qualifications Authority, n.d.). I did this in order to gather three kinds of data: school demographics; school mean reading achievement; and reported reading intervention use. Figure 3.6 summarises the data gathered from each of these sources.
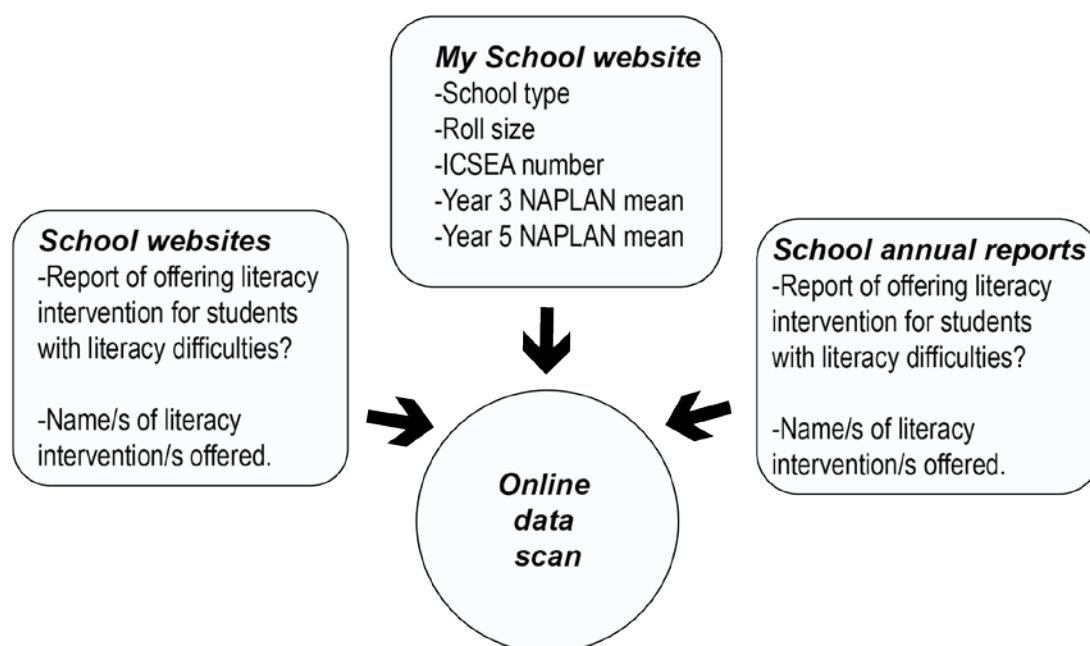
Figure 3.6. Data gathered from each source in the online data scan.

Data on three demographic variables were gathered from the My School website (ACARA, n.d.g). They included: the sector type of each school (Government, Catholic, or Independent); and its ICSEA number and the number of students on its roll in 2014. This information was gathered in order to enable comparison between the literacy intervention offerings of schools from different sectors, of different sizes, and of differing levels of socio-educational advantage. Data on schools' average reading achievement in years three and five were gathered using their publically available NAPLAN (ACARA, n.d.) mean scores in 2014, in order to enable comparison between the literacy intervention offerings of schools with different average levels of assessed reading achievement. In this study, ICSEA and NAPLAN are used as proxy measures of socio-educational advantage and reading achievement. However, it is acknowledged that many aspects of socio-educational and socioeconomic disadvantage and advantage, and of student achievement, are not evident in the standardized data these measures generate. Despite this, using these online sources enabled data to be collected from all schools in the sample, and allowed broad comparisons to be made between more and less socio-educationally advantaged schools, and schools with higher and lower NAPLAN reading achievement. As ICSEA and NAPLAN are Australian wide measures, the use of these also enabled comparison between the data points for this study's sample, and the 2014 Australian wide NAPLAN means, and ICSEA median.

I collected data from school websites in 2014, and data from the My School website (ACARA, n.d.g) and schools' annual reports in 2015, as this was when the 2014 data were made available. Two sources, school websites and school annual reports, were read for mention of literacy interventions offered—as some schools provided detailed information about additional programs on their websites, whilst others did so in their annual report. Schools were coded as offering a literacy intervention: if they reported offering a program known to be specifically for students with literacy difficulties, for example, Reading Recovery; if they stated offering extra support programs for students with literacy difficulties but did not name a product or program; or if they stated using a volunteer program or reported using a broader literacy program specifically with individuals or groups of students with literacy difficulties, for example, a reading mentor or a phonological awareness program. Two interventions were named using the funding tagged to them: the Literacy Numeracy Special Needs funding (CEOM, n.d.b) in the Catholic system; and the Early Years Koorie Literacy and Numeracy program funding (DET, n.d.a) in the Government system. These were included as they were described in the relevant schools' websites and/or annual reports as being used to target students with literacy difficulties. General references to support for students with special needs or with learning difficulties were not counted, nor were references to whole class literacy programs, oral language and speech programs, or general parental or volunteer reading programs.

3.3.3   Phase two: School and individual case studies
3.3.3.1 Overview
I developed a multiple case study design to explore the experience and outcomes of participating in a literacy intervention from the perspective of key stakeholders over time. Perspectives were sought from principals, teachers, literacy intervention teachers and tutors, parents, and students to provide thick, multi-layered descriptions of literacy interventions at school and at student levels. Data were collected up to three times to explore case study students' literacy development over the course of the study.

3.3.3.2 School recruitment
Two contrasting school settings offering literacy interventions for students with literacy difficulties were sought for the study. Potential schools were recruited via the principal questionnaire, which included an expression of interest form with the questionnaire link. Of the nine principals who completed the initial questionnaire, three returned an expression of interest form stating they were interested in participating in the study. Information about the project, including Explanatory Statements (see Appendix D), and permission to

invite participants forms, were sent to these principals. Two principals confirmed their willingness to engage in the research through their return of the permission forms, whilst the other declined to participate.

The initial information provided to schools referred specifically to students in reading interventions. However, as noted in the introduction, I have used the term 'literacy intervention' throughout this thesis as many of the online scan interventions encompassed several aspects of literacy, two of the three case study schools' literacy interventions focused on reading, writing and spelling, and all three interventions of their interventions incorporated oral language. In addition, a focus of the thesis was to learn whether students were using the skills they had gained in the intervention in broader contexts, including classroom and out of school literacies.

3.3.3.3 Case study sites

Sacred Heart School[9] is a Catholic school in a metropolitan area of Victoria. It is a small school drawing from a below average socio-educational status population. It offers two literacy intervention programs: Reading Recovery and Reading for Life. There were three case study students at this school—Georgia in Reading Recovery, Oliver in Reading for Life, and Brydie who had participated in both of these interventions. Sandy Bay School is a Government school in a provincial area of Victoria. It is medium-sized, and draws from an above average socio-educational status population. It offers streamed literacy classes across paired year group levels and ran a literacy intervention program—Literacy Support—for the lowest stream in each of the paired year group levels in 2014. There were three case study students at this school, one from each paired year group level— David, Finn, and Lochie.

Figure 3.7 shows the participants interviewed at each case study school, their roles, and the relationships between them. The subsequent sections discuss the focus of the interviews for each group of participants, and provide details of the frequency and timing of the interviews for each specific case.

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[9] All school and participant names are pseudonyms. Participants are introduced using both their pseudonym and their role when first referred to or quoted in each chapter or major section, and by their pseudonym in subsequent references. Interview numbers are also provided with the ideas of participants who were interviewed on more than one occasion.
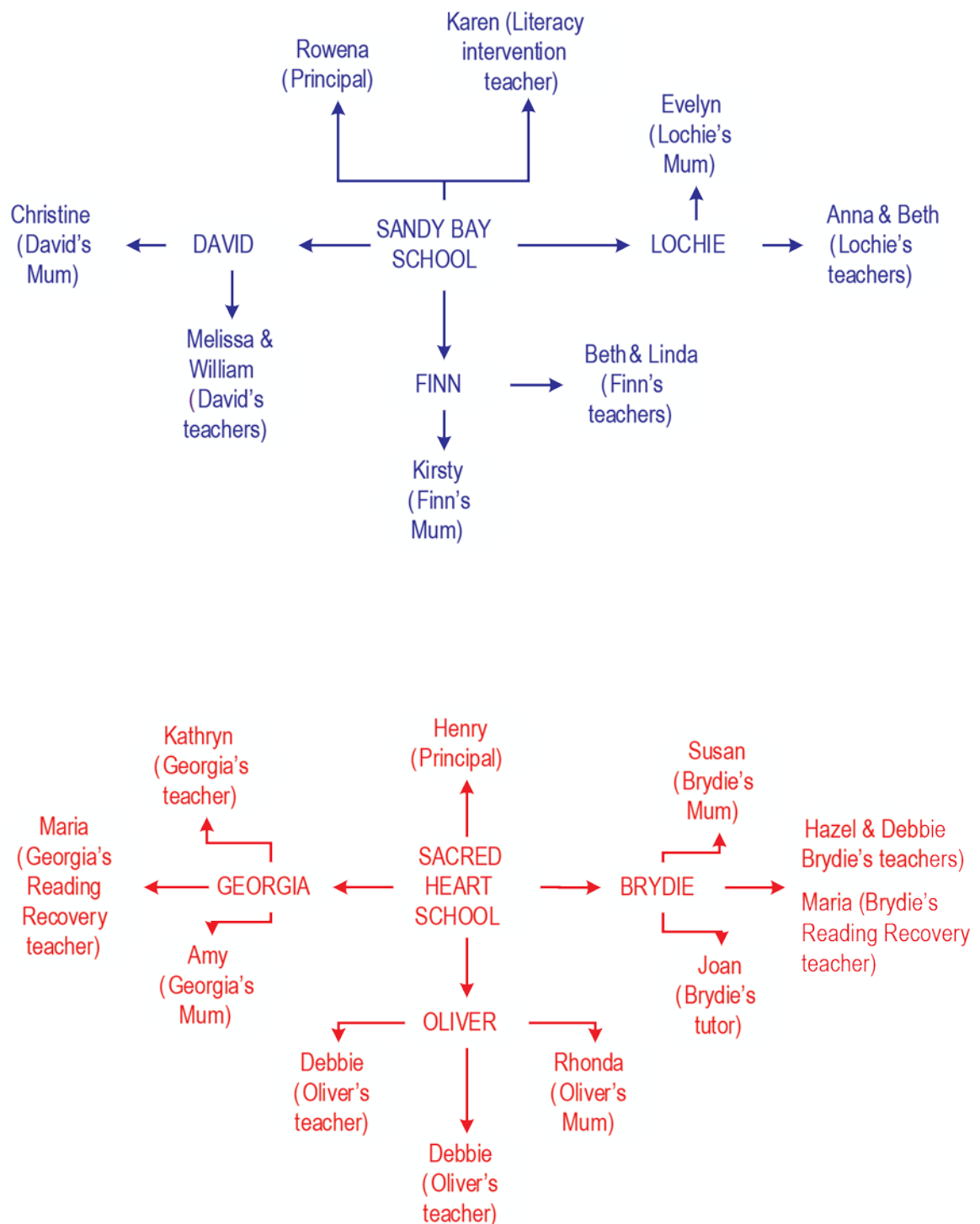
Figure 3.7. Case study settings, participants, and roles.

3.3.3.4 Case study participant recruitment

The principals at Sacred Heart and Sandy Bay Schools distributed Explanatory Statements (see Appendix D) and consent forms (see Appendix E) to classroom teachers and literacy intervention teachers and tutors at their schools. I spoke to both principals about the study,

and at Sacred Heart School I met with staff to discuss the research project and answer their questions. Classroom teachers, principals, and literacy intervention teachers and tutors at each school gave written consent to participating in the research. These staff suggested potential case study students who were participating, or had participated, in a literacy intervention at the school, and who also met the following criteria: that they were likely to be confident enough to be interviewed by someone they did not know; and that their parents were confident enough speakers of English to be interviewed in English. A short list of potential case study students was drawn up by the school, and Explanatory Statements and consent forms were given to these students and their parents by their school principals. Of the students and parents who consented to participate in the study, three case study students were selected at each site in consultation between the researcher and the school principal, providing a mix of girls and boys of different year levels.

Demographic information about the students—including their date and country of birth, school year level, first language, and ethnic background—was requested from their school principal. These data showed that all six case study students were born in Australia, identified as Australian European, and spoke English as their first language. Comparisons with Sandy Bay's and Sacred Heart School's overall student ethnic and language backgrounds on the My School site (ACARA, n.d.g) showed that the case study students were typical of their school settings with respect to these demographic characteristics.

There were some limitations in this recruitment process. Firstly, the cases in this study were schools and participants who chose to be involved with the research, and who wanted to discuss their experiences with literacy interventions with me. It is possible that these schools had had positive experiences with interventions, and looked on the research as a way to showcase their schools' programs. It is also possible that potential participants who were disengaged with the school and intervention may have been less likely to be chosen by their schools to participate in this research project. In addition, due to funding restraints, it was requested that all participants were able to participate in interviews conducted in English. However, this did not overly limit the sample as most of the families at each school spoke English as their first language.

3.3.3.5 Case study data collection
The case studies used individual participant interviews to gather data at two levels. At a school level, data on each school's approach to, and perceptions of, its literacy

interventions were sought. Specific questions were asked about: who participated in the intervention; what the program set out to do and how it did this; and participants' beliefs about (i) what makes an effective intervention, and (ii) what constitutes an effective post-intervention transition to classroom learning. School level data came primarily from interviews with the principals, teachers and literacy intervention teachers or tutors, and also from interviews with parents and students. This data set provided information about each school's rationale for, and content and implementation of, the literacy interventions they offered. These findings are disseminated in the form of narrative school case studies in chapter four. The second level of data collection was the individual student case studies. Data were gathered on each student's literacy difficulties, the content and outcomes of their literacy interventions, their school assessment results, their home and school literacy practices, and their experiences in their intervention/s. Data at the individual level were gathered primarily from classroom teachers, parents, students, and at Sacred Heart School, the literacy intervention teacher and tutors. These student case narratives form chapter six of this thesis.

3.3.3.6 Interview questions

I developed open-ended, indicative interview questions to explore literacy intervention perceptions, experiences, and outcomes with each case study student, and their school principal, classroom teacher, intervention teacher or tutor, and parent (see Appendix B for one set of questions). These were intended to guide rather than prescribe the content of the semi-structured interviews, and additional and adapted questions were included when interviewing each participant to explore their responses in more depth. Ideas and issues discussed by participants in our first interview were revisited in subsequent interviews. Topics for principals included: the features, advantages, and challenges of previous and current reading interventions; and beliefs about effective reading interventions. Topics for students, teachers, parents and tutors included: students' literacy difficulties and development; perceptions of students' literacy interventions; and features of effective reading interventions.

3.3.3.7 Case studies data collection procedures

The original research design aimed to collect individual students' case study data in three stages: before; at the conclusion of; and one term after students participated in an intervention to improve their literacy. Preliminary conversations with the participating principals revealed that, in their schools, the intervention process did not follow this linear

pattern, as interventions started at different times of the year and some students accessed intervention services over a year or more. Due to these factors, I made the decision to change to two stages of data collection for Oliver, David, Finn, and Lochie's case studies, one stage for Brydie's case study, and three stages for Georgia's case study.

The principal of each case study school was interviewed once about: his/her reasons for implementing particular literacy interventions; the advantages and disadvantages of these programs; the typical outcomes of students participating in them; and his/her beliefs about how best to cater for students with literacy difficulties.

The literacy intervention tutors at Sacred Heart School were interviewed once at or after the conclusion of the target student's literacy intervention. Georgia's literacy intervention teacher was interviewed during each of my three visits due to her continuing involvement with Georgia's literacy learning. These participants were asked questions about their experiences in working with their respective program, and progress observed while tutoring/teaching their case study student. They were also asked about the student's attitudes to reading, the advantages and challenges of participating in the literacy intervention, and what they believed was important in supporting students with reading and literacy difficulties. The literacy intervention teacher at Sandy Bay School participated in a shorter phone interview towards the conclusion of the intervention she delivered, as she was on leave during my visits to the school for data collection. During this interview, she provided information about the content of the program she delivered.

David, Finn, Oliver, and Lochie, their respective teachers, and parents were interviewed twice—near the conclusion of, and one school term after their interventions—with the exception of Lochie's parent who was only available for the second interview. Brydie, her parent, and two of her teachers were interviewed once, approximately one year after the conclusion of her most recent intervention. Georgia and her parent were interviewed three times—near the start, end, and one term after the conclusion of her intervention, and Georgia's teacher was interviewed twice, as she was on leave at the time of the final interviews. These participants discussed changes in the case study student's literacy and learning, and responded to the LPQ. They also talked about the student's attitudes to reading, the advantages and challenges of participating in the literacy intervention, and their beliefs about supporting students with literacy difficulties.

All interviews with students, principals and teachers were conducted on school property, in a suitable room (arranged with the school principal), during times convenient to the participants and to the school. Telephone interviews were conducted with parents and tutors who were unable to attend an onsite interview. Students' literacy achievement data was gathered from their classroom teacher and/or school principal either during or at the conclusion of the research study.

This section has outlined the overall research design of this thesis, including the research sites, participants, procedures, and timings of data collection. The following section discusses how the data sets were analysed.

3.4   Quantitative data analysis

This section outlines the quantitative procedures and statistical tests used to analyse the State level data from the online data scan.

3.4.1   Describing the sample

A spreadsheet in SPSS (IBM, 2013) was constructed to record the 150 schools' online data, comprising: school identification number; sector type; number of students on roll; ICSEA number; year three and five NAPLAN reading achievement means; and literacy interventions offered. Descriptive statistics were used to summarise the nominal variables: sector type; report of offering a literacy intervention; and names of interventions offered. The data sets for each of the continuous variables—roll, ICSEA number, and NAPLAN means—were divided with quartiles in order for comparisons to be made between the resulting quarters: low (first quarter); low-average (second quarter); high-average (third quarter); and high (fourth quarter).

3.4.2   Report of offering a literacy intervention

Crosstabs and the Pearson's chi-square test for goodness of fit were used to test the hypothesis that there would be no relationship between schools' demographic variables and their report of offering literacy interventions. This null hypothesis was used as the baseline due to there being no established body of research demonstrating different proportions of literacy intervention use across demographic variables in Victorian or Australian schools. The crosstabs enabled comparison between the expected even distribution of schools offering literacy interventions across the categories for each demographic variable, with the actual distributions in the data. The Pearson's chi-square test for goodness of fit tested whether the differences identified in the crosstabs were

statistically significant (p=<0.05) —suggesting a relationship between the demographic variable and the likelihood of a school reporting offering a literacy intervention program; or likely to be due to chance—supporting the null hypothesis that there is no relationship between the variable and report of offering a literacy intervention.

3.4.3   Types of interventions offered

The names of the literacy interventions schools reported offering were entered into the spreadsheet, and coded as to their instructional emphasis if this could be identified. This list of interventions was sorted into three major types for further analysis, and the crosstab and chi-square procedures described above were run to test the null hypothesis that there would be no relationship between each of the schools' demographic variables, and their report of offering or not offering each of these types of interventions.

It is noted that the above approach has limitations, and that p values from Pearson's chi-square tests require careful interpretation, as they test a hypothesis of no relationship rather than suggesting causation. The crosstab and chi-square test for goodness of fit approach was used as it was most appropriate for the specific variables of interest and hypotheses tested, and did not violate assumptions as other potential tests did. For example, logistic regressions were not run due to multicollinearity—high inter-correlations between the two NAPLAN means, and between both NAPLAN means and schools' ICSEA numbers; whilst Pearson's chi-square test for independence was not used as the same 150 schools were represented in each of the five variables.

3.4.3   Questionnaire analysis

The nine returned questionnaires were each given an identifying number, then schools' sector type was recorded, and principals' estimates of the proportion of students with reading difficulties were converted to a percentage of their school rolls. The schools' roll sizes were categorised using the quartile groupings from the online data scan, as providing raw roll figures, together with the other information, may have identified the schools. The interventions offered in each school were listed. Data from two questions were not analysed: schools' ICSEA numbers were not included as few of the respondents provided this, and schools' general literacy programs were not included, as this question was included in the questionnaire as a contingency should few or no schools report offering targeted interventions for students with literacy difficulties.

Open coding was used to identify and describe key ideas and recurring themes in principals' responses to the question: What are the advantages and disadvantages of this intervention? A recursive process of recoding, memoing, and journaling questions and ideas resulted in multiple descriptive themes. Next, selective coding was used to group these into five overarching or selective themes: logistic considerations; teacher and tutor expertise; learning; literacy development; and relationships.

3.5   Qualitative data analysis

This section outlines overarching data analysis practices, then describes the two main data analysis processes, each with several steps. First, I outline transcription and reflexive journaling processes. Next, I discuss the inductive analytic steps used, including those used for the sub-set of students' literacy development data. Thirdly, I outline the inductive model derived from this analysis, and describe its factors. Finally, I discuss the process of constructing narrative accounts of: literacy intervention provision in each school; and literacy development for each student.

I transcribed all interviews myself, and sent the interview transcripts to all adult participants in the study for them to review and to make changes if they wished. I chose not to send transcripts to the students as they were young and found reading difficult, and I did not believe it was fair to send students' transcripts to their teachers or parents. I had hoped to play back the recording to each student in the interviews, asking them if there was anything they wanted to add or take out. However, this would have doubled the length of each interview and, once interviewing students, did not seem like a good use of their time, particularly as some were restless towards the end of their interviews and interested in what was happening back in their classrooms.

Throughout data collection and analyses I engaged in reflective journaling, for example, to pose questions about my role and actions during interviews, and to consider my reactions to ideas shared by participants. This reflexive process provided questions for clarification in future interviews. It also enabled me to identify and challenge my own assumptions and biases, and to problematize these during the processes of data analysis and presentation.

3.5.1   An inductive approach

Inductive analysis was used to abstract information, and identify important themes in the open-ended questionnaire responses in each case study, and across the case studies. NVivo software (QSR, 2012) was used to aid with this analysis. The inductive analysis process

involved three steps: open coding; focused coding; and axial coding. The model for interpreting the data emerged from successive iterations of working through these steps. This model was then used to describe the contribution of each of the key factors impacting on each school's literacy intervention provision, and each student's literacy development; and to engage in discussion of cross case themes and key ideas.

3.5.1.1 Open coding

The first stage of analysis involved recursive readings of the questionnaire responses and interview transcripts many times to develop familiarity with the data. Notes, memos, and journal responses were made to record initial impressions and ideas. Open coding was used to describe key ideas and recurring themes in the responses.

3.5.1.2 Focused coding

During the iterative process of open coding, naming, and clarifying themes, focused or selective coding was simultaneously employed to identify the major concepts within which the more detailed and descriptive themes sat. These consisted of seven overarching ideas: locus of difficulty; literacy development; learning; expertise; logistical considerations; relationships; and outside influences. These were consistently identified by participants as powerful interacting factors that impacted both on schools' literacy intervention provision, and students' literacy development through and beyond an intervention. A descriptive code book was constructed setting out each focused theme, its sub-themes, a description of data coded under that heading, and an example from a data source (see Appendix F for a section of the final code book). The code book underwent fewer adjustments as more interviews were analysed, suggesting that the thematic model was credible and robust. Once all interviews had been analysed and the thematic model and codebook were finalised, all interviews were checked, and if necessary, recoded for consistency across the sample.

As outlined in the literature review, literacy intervention research tends to home in on particular factors, such as the learning focus of the intervention, or students' literacy change as evidenced through assessment results. In this study, the inductive analytical approach revealed additional factors such as the logistical issues schools face when implementing literacy interventions, and the significance and impact of different policies between school sectors. These factors extended the scope of the original socio-cognitive theoretical frame constructed for this thesis, leading to the development of a situated model

of literacy intervention provision and implementation, which is described later in this chapter.

3.5.1.3 Students′ literacy development data

Data on students' literacy development came from several sources. Qualitative, observational information about students' abilities, attitudes, and improvements in literacies was shared in the interviews. Students' assessment data provided information about their literacy skill improvement, and the LPQ provided a measure of their broader home and school literacies. These data sets informed the literacy development factor identified as one component of the situated model.

3.5.1.3.1 Students′ assessment data

Students' literacy assessment results from the beginning of their intervention year/s, to the time of their final research interviews, were gathered from the relevant school staff, and recorded. Each student's assessment results were graphed to show their progress over time on these measures. Their achievement in relation to the expected levels or standardized norms for their age or year group was also calculated and graphed. Standardized levels and norms for the assessments used were gathered from school staff, test and assessment manuals, reading assessment materials on the DET website (DET, n.d.b), and through communications with assessment developers.

An additional quantitative measure was calculated to explore students' expressive language in the qualitative interviews, as it was observed that there were large differences between the lengths of different case study students' responses to the interview questions. A word count for each student's response to each of the qualitative interview questions was tallied, and their mean responses were calculated. These means were further averaged across the number of interviews each student participated in, enabling a comparison of students' mean interview question response length.

3.5.1.3.2 Literacy practices questionnaire (LPQ) analysis

In each case study, student, parent, and teacher responses to the LPQ were recorded, and their examples of students' literacy events were transcribed on a template (see Appendix G for one student's template). The number of practices reported was tallied. For the questions: How often do you engage in this practice?; and How do you feel about engaging in this practice?; participants' responses from their first interview were compared with subsequent interviews through the use of meta-matrices, and arrows were used to plot the directional relationship of their engagement with each literacy practice over the course of

the study. These meta-matrices were used to summarise students' reported practices into categories ranging from: literacies they reported feeling good about and engaging in regularly; to those they reported engaging in seldom and not enjoying (see chapter six for diagrams presenting each student's LPQ data). Examples of students' literacy events were analysed for evidence of change in complexity, and, where possible, causal factors associated with changes in, and maintenance of, literacies were identified.

In the LPQ data, the students' own perceptions of how they used literacies took precedence, with the parent and teacher responses providing additional examples and explanations of the ways in which students used literacies. Whilst the frequency and positivity reported for each practice could be compared between the interviews, changes were often small, or were attributed to factors other than literacy development (such as a change in access to digital equipment). The most interesting data generated by the LPQ were participants' examples of how students engaged in each practice, some of which suggested increasing complexity over time. The literacy practices data became one dimension in the literacy development factor in the situated model.

3.5.1.4 Axial coding
The next stage of analysis employed axial or relational coding to examine the relationships between the key themes for specific cases and groups of participants. Gibson and Brown (2009) emphasise the importance of this stage, explaining that "A significant part of the aims of thematized analysis involve working out the relationships *between* code categories, and the significance of such relationships for the development of theoretical conceptions and statements" (p.138). Questions were asked of the data to establish relationships between the themes for case study students, case study schools, and groups of participants, for example: identifying which themes were most prevalent for each case in each setting; what the participants' beliefs about literacy difficulties and interventions were; and which were the enabling and constraining factors impacting on intervention provision in each school?

In this connecting, or axial coding phase, the situated model arising from the data was projected onto each case, participant group, and setting, to enable the mapping of literacy intervention provision and of literacy development from the perspective of each of these groups. This modelling process explored how the themes interacted in each setting and for each case study student. Key questions included: What were the reported directional

relationships?; and What were the reported factors enabling and constraining literacy development?
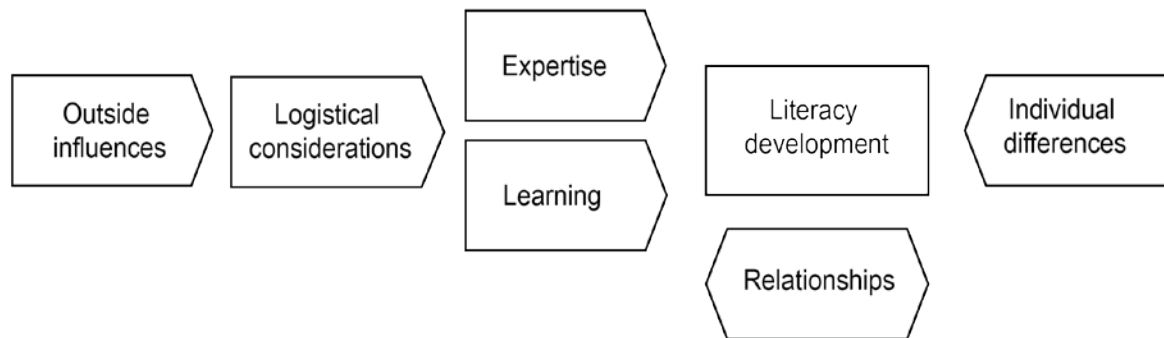
Figure 3.8. A situated model of literacy intervention provision and implementation.

Figure 3.8 shows this situated model, which includes input factors from: wider society; home and community learning environments; the school, teacher, and learning program; and from the individual child. The model shows how a range of factors may impact on: a) schools' literacy intervention provision; and b) students' literacy development through an intervention. Furthermore, it provided a framework for identifying whether these were enabling or constraining factors in each case study school, and for each student. This model is situated because it acknowledges that in each school setting and for each individual the combination of enabling and constraining factors will differ. This model relates broadly to the conceptual model framing the research design for this thesis (Figure 3.2), incorporating societal and school system influences, learning opportunities, and individual factors. Yet this situated model also draws attention to logistical concerns and relationships, and is more specific in describing learning influences as incorporating both expertise and pedagogical practices.

In this model, each of the factors incorporates more specific components. The outside influences factor comprises policy recommendations and mandates, research findings, and school funding. Logistical considerations include a range of school and intervention level dimensions. School logistics include: the need for and cost of literacy interventions; the availability of training and/or trained staff to deliver them; timetabling; and finding physical spaces in which to run interventions. Intervention logistics include: group size; withdrawal or homogenous classes; length of program, number of students who can receive support; and criteria for participation.

As shown in Figure 3.8, outside influences and logistical considerations impact on two pedagogical factors—expertise and learning. Expertise is primarily located at the school level, and is in part driven by the availability of training, experience, and professional development. The components of expertise include: knowledge about literacy acquisition and difficulties; understanding of assessment tools and the data they generate; and the ability to design and deliver intervention programs. The learning factor acknowledges that literacy learning occurs in a range of settings, including: home and community; the classroom and school; and the intervention. Within the learning factor, the pedagogical content of, and delivery method for, learning in each of these settings is considered.

The individual differences factor identifies student-specific influences on literacy development, and encompasses four main components—medical, cognitive, affective, and home. The medical component comprises medical diagnoses of sensory or developmental difference. The cognitive component includes students' specific areas of literacy difficulties, as identified through participant observations and student assessment results. The affective component includes information about students' motivation and attitudes to literacy and learning engagement. Finally, the home component incorporates other differences that may impact on students' learning, such as socioeconomically or emotionally challenging home or community circumstances.

Relationships between school and the community, home and school, student and teacher, literacy intervention tutor/teacher and classroom teacher, and between classroom teachers are shown as a factor mediating between learning contexts and the individual.

Figure 3.8 shows the seventh factor—literacy development—as the interaction between these extrinsic and individual factors. Literacy development is conceptualised as occurring in four main dimensions: change in formal assessment results; change in observed skills and behaviours; change in affective stances towards literacy engagement; and change in the contextualised uses of literacies.

3.5.2 Constructing case narratives

The case narratives in this thesis were constructed from interview data gathered from a range of participants over one to three interviews, and also included additional online and literacy development data sets. A number of theorists have identified and described narrative elements common to traditional and contemporary texts (e.g. Barthes, 1975; Lévi-Strauss, 1963; Propp, 1968), and Silverman (2006) notes that knowledge and

understanding of narrative structures and moves can be used both to analyse existing texts, and to construct narrative accounts. I used a narrative schema approach to construct narrative accounts of each school's literacy intervention provision, and each student's literacy history and trajectory.

The school case study narratives set one Government, and one Catholic, school's literacy intervention programs in the context of their wider school pedagogical approaches, and their school system policy landscapes. These narratives were constructed primarily from principal and teacher interview data, and also included parent and student data, and online demographic and achievement data. Each begins with a summary of the school and community demographic data, and of the literacy policies directing each school system. The subsequent sections of these narratives are structured around each school's: previous and current approaches to literacy education, interventions, and assessment; beliefs about the loci of literacy difficulties; literacy intervention pedagogy and practices; the intervention in the wider school context; and future needs for, and challenges in, literacy intervention provision.

The student case study narratives have the common purpose of describing the students' literacy trajectories over time. The narrative structure was suggested in part by the indicative interview questions and other data collected, and in part by the themes emerging from the inductive analysis of the data. These narratives follow a chronological, linear form, and were constructed by synthesising the participants' ideas about the loci of each student's literacy difficulties, their educational and intervention histories, their current literacy strengths and challenges, and the participants' expectations of their future literacy trajectories. There were some common patterns across these narratives: for example, parents usually gave the earliest accounts of their child's literacy difficulties; school staff gave more detailed information about current learning needs; and students tended to offer interesting and detailed examples of their literacy practices.

Some presentations of narrative research explicitly include the researcher's reflexive thoughts when disseminating their findings, with researchers examining their own beliefs and perspectives on data collection, analysis, and reporting processes, in and around the participants' ideas (Finlay, 2002). Whilst engaging in reflexive processes throughout this study, I chose to voice my own thoughts sparingly in the presentation of the case study narratives for this thesis. I believe it was important to use the ideas and quotations of the

participants to tell their experiences of literacy intervention in their schools, and for particular students. This fitted with the thesis aim to present the emic experiences of literacy intervention participation and use, and to provide those participating in and working with interventions a platform with which to share their thoughts and experiences.

This section has outlined the quantitative, inductive, and narrative approaches used to analyse the different data sets in this thesis. The following section addresses ethical practice.

3.6   Ethical considerations

This section discusses ethical principles underpinning this thesis. It then outlines the formal processes undertaken to gain ethical approval for this study, and informed consent from its participants.

Ethics in research is commonly understood to incorporate research honesty and integrity, respect for participants, their voluntary consent and their privacy, appropriate use of the ideas and resources of others, and responsible communication of the results (NHMRC, Australian Research Council & Australian Vice Chancellors' Committee, 2007).

In this thesis, a central aim was to represent participant voices with integrity, offering principals, teachers, tutors, parents, and students the opportunity to share their experiences of working in and with literacy interventions. This is not an easy task, as representation is always subjective. In sharing the stories of schools with and students in literacy interventions, I hoped to advocate for students who struggle to learn to read, and the adults who seek ways to help them. I acknowledge the challenges in purporting to speak for others, noting at the same time that these voices are seldom present in studies of literacy remediation.

Transparency was a focus of the interactions between myself and the participants. Despite this, on occasion I observed misunderstandings: for example, some adult participants shared their hope that this research would improve literacy intervention provision in their State, school, and for particular case study students. This outcome was not suggested in the Explanatory Statements provided to participants, nor was it implied in my informal interactions. When encountering this misunderstanding I clarified the limitations of this study, sometimes describing its potential contribution as a 'drop in the bucket', although conceding that it may contribute to policy change.

Interviewing children can be a sensitive practice due to power imbalances between the interviewer and child participants (Eder & Fingerson, 2003). I aimed to minimise the impact of this imbalance by drawing on my knowledge of and experience with working with students, including those with literacy difficulties, in order to create a safe and open atmosphere in the interviews. My teaching background supported me both in developing appropriate and relevant interview questions, and in asking questions in an age-appropriate and respectful way, for example, by using visual prompts for discussion. Due to time and distance constraints, I was not able to meet with the students prior to our first interview. However, in an effort to create a natural and reassuring interview space, I requested the use of areas within the school that were familiar to the students, and offered parents and students the option of the parent being present whilst the student interviews took place.

I took steps to protect the confidentiality of the schools and participants through the use of pseudonyms, and stored data in locked cupboards and on password protected devices to protect participants' privacy. I also reported case study school demographic information such as roll sizes and ICSEA numbers in bands, and provided adult participants with copies of their own transcripts rather than case narratives containing the data of others, as additional privacy measures.

I made the decision not to directly approach prospective teacher, parent, and student participants in an effort to limit the possibility of these participants feeling coerced into participation. At the beginning of each interview, I also reminded participants of their option to withdraw or end the interview at any time, and invited them to ask questions of me.

Finally, I took seriously the task of reporting the research findings with integrity and honesty. I believe that the methodical, reflexive data analysis I undertook supported me to identify clear, stable themes in the data, and also to distinguish divergent and unexpected findings. Both the frequently observed and divergent findings have been presented in the results chapters.

3.6.1   Ethical approval

Ethical approval to conduct this research project was sought from three places. I received approval to conduct this research with human participants from the Monash University Human Research Ethics Committee on the 2nd June, 2014. An amendment to this initial application to include the use of publically available online data was granted on 27th

February, 2015. Consent to conduct research in Victorian Government schools was granted by the Department of Education and Early Childhood Development (now DET) on 26th May 2014. Consent to conduct research in Greater Melbourne Catholic schools was granted by the Catholic Education Office, Archdiocese of Melbourne on the 4th April, 2014.

3.6.2   Informed consent

Informed consent was sought and gained from all participants in the study. All potential participants received written information about the study, in the form of an Explanatory Statement (see Appendix D) and were invited to contact the researcher for further information about the study. For questionnaire participants (school principals), completing the questionnaire constituted consent for their questionnaire data to be used in the study. Information provided to school teachers and intervention tutors included an Explanatory Statement written in plain English, the researcher's contact details, and a consent form (see Appendix E). At one case study school, I met with teachers to answer their questions about the study. When students had changed classroom teacher from one stage of the research to the next, informed consent was sought from the new teacher.

Teachers and principals distributed Explanatory Statements and consent forms written for parent and child audiences to potential student and parent participants, and, where appropriate, also provided oral explanations of the project. Signed consent forms were received from all participants in the study. I also gave a brief explanation of the purpose of the project, and verbally checked that participants understood and agreed to the terms of the consent form, before conducting each interview.

This section has outlined the processes for ensuring ethical practice and informed consent in this thesis. The following section summarises the chapter.

3.7   Chapter summary

This chapter has explicated the theoretical frame for this thesis, and has justified the use of a mixed methods, collective nested case study design to gather a range of data on the phenomena of literacy interventions at State, school, and individual levels in Victorian primary education. It has detailed the tools, strategies and procedures used for data collection and analysis, outlined the situated model developed in this study, and has discussed ethical considerations. The following chapter will present data from phase one of the research, consisting of: quantitative State level data and principals' questionnaire

data exploring Victorian schools' literacy intervention use; and narrative case studies of literacy intervention provision at Sacred Heart and Sandy Bay Schools.

4.   Print literacy interventions in Victorian primary education

This chapter reports the findings of three data sets which describe literacy intervention use in Victorian primary education settings at State and school levels; utilising quantitative and qualitative analysis and presentation methods. In the first section, quantitative data from an online scan of schools' literacy interventions are presented, answering the question: What is the prevalence and scope of print literacy intervention provision in Victorian primary education settings? Next, the principals' questionnaire findings are summarised. Finally, qualitative case studies of literacy intervention provision in two contrasting schools are related using narrative summaries constructed from qualitative interviews with principals, teachers, intervention teachers and tutors, parents, and students. The questionnaire findings and school case studies address the questions: How do participating students, their parents, classroom teachers, literacy intervention teachers, and school principals perceive print literacy interventions at the school level?; and, what are the factors impacting on schools' intervention implementation? This chapter concludes with a summary, and is followed by chapter five with a discussion of the key findings across the State and school level data in relation to policy documents and research literature.

4.1   State wide data: Online data scan

This section describes the 150 schools in the online data scan sample with regard to: sector type; roll size; ICSEA number; and year three and five mean NAPLAN reading scores. A chart is used to show the proportions of schools from different sectors, and box and whisker plots to show the quartile distributions for the four continuous variables. These quartile distributions provide low, low-average, high-average, and high categories for the continuous variables, enabling comparison within the variable, for example, between the literacy intervention offerings of schools of different sizes. These variable categories also enable contextualisation of the questionnaire and case study schools' demographics in relation to the larger online data scan sample, which, as discussed in the methods chapter, is moderately representative of Victorian primary education settings.

Next, cross tabs are used to compare schools' demographic variables with their reported use of literacy interventions. Differences in literacy intervention offerings within each variable are tested for significance using Pearson's chi-square test for goodness of fit.

Following this, the types of literacy interventions schools reported offering are explored in relation to their demographic variables using the same cross tab and Pearson's chi-square test for goodness of fit approach.

4.1.1 Sample demographic variables
4.1.1.1 School sector
School sector was the first variable examined.
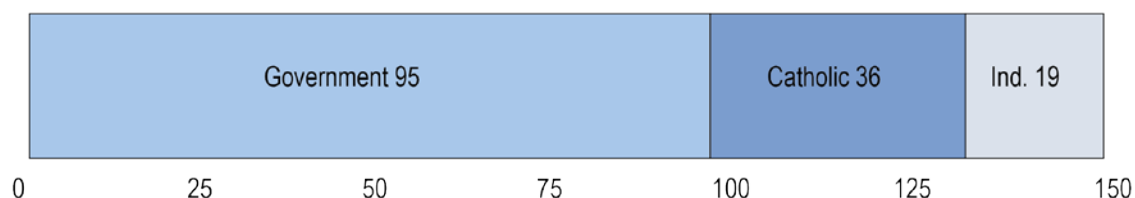
Figure 4.1. Number of Government, Catholic, and Independent schools in the sample.

Figure 4.1 shows that, of the total sample of 150 schools, there were 95 Government schools, 36 Catholic schools, and 19 Independent schools, and, as discussed in chapter three, these proportions suggest that this randomised sample is moderately representative of Victorian primary education settings, with a margin of error of 5%.

4.1.1.2 School rolls
The schools in the sample had student roll sizes ranging from very small (12 students), to very large (2819 students), in 2014.
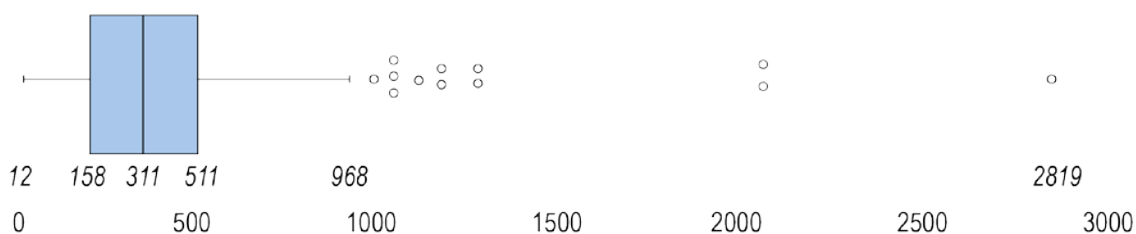
Figure 4.2. Box and whisker plot showing the distribution of the sample schools' rolls in 2014 ($N = 150$). Notes: Minimum, maximum, and quartile values shown in italics. Decimals rounded to nearest whole number. Outliers represented with dots.

Figure 4.2 shows the quartile distribution for the sample schools' rolls. The median school roll was 311 students, and schools falling in the inter-quartile range had between 158 and 511 students. The mean school roll was 397 (not shown in Figure 4.2). The fourth, or high quarter had the largest range, and included twelve outliers (defined as numbers larger than quartile three plus one and a half times the interquartile range). These outliers were checked, found to be correctly recorded and retained in the data set. They described the

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rolls of seven Independent and five Government composite schools catering for both primary and secondary aged students.

4.1.1.3 School ICSEA numbers

Schools' ICSEA numbers were gathered as a proxy measure of their relative socio-educational advantage. The lowest ICSEA number for any school in the sample was 881 and the highest was 1243.
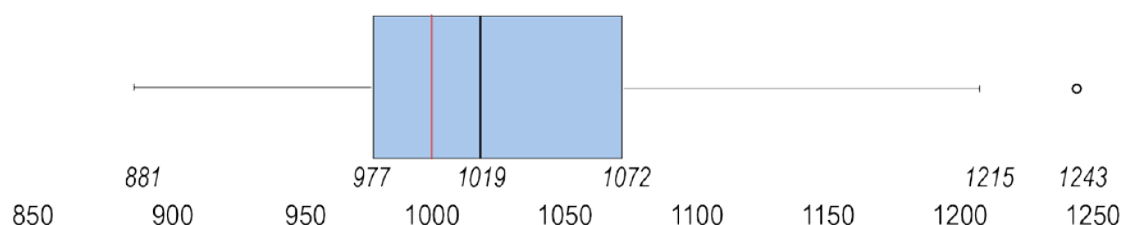
Figure 4.3. Box and whisker plot showing the distribution of the sample schools' ICSEA numbers in 2014 ($N = 150$). Notes: Minimum, maximum, and quartile values shown in italics. Decimals rounded to nearest whole number. Outliers represented with dots. Australian ICSEA median shown in red.

Figure 4.3 shows the median school ICSEA number for this sample was 1019—19 points higher than the Australian median of 1000, suggesting that on average, Victorian schools draw from more socio-educationally advantaged populations than Australian schools do. The mean ICSEA number for this sample was 1030 (not shown in Figure 4.3). The interquartile range was quite narrow, with half of the schools having ICSEA numbers between 977 and 1072. There was one outlier which was checked and found to be correct (belonging to an Independent school) and retained in the sample.

4.1.1.4 Schools' year three NAPLAN reading mean scores

Schools' year three NAPLAN reading mean scores were gathered as a proxy measure of their students' reading achievement in 2014. This data was available for 141 of the 150 schools in the sample, as NAPLAN data is not published for schools with a very small cohort of students. The Australian year three NAPLAN reading mean was 418.
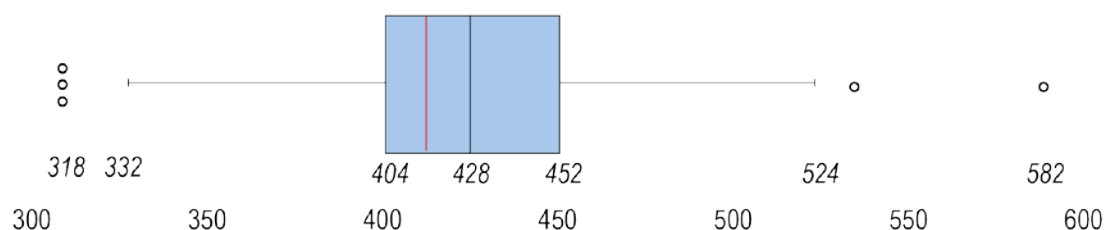
Figure 4.4. Box and whisker plot showing the distribution of the sample schools' year three NAPLAN reading mean scores in 2014 ($N = 141$).
Notes: Minimum, maximum, and quartile values shown in italics. Decimals rounded to nearest whole number. Outliers represented with dots. Australian mean shown in red.

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The sample schools' mean NAPLAN scores ranged from a minimum of 318 to a maximum of 582, with a median of 428 and a mean of 429—11 marks higher than the Australian mean of 418. The interquartile range was relatively narrow, with half of the schools having scores between 404 and 452, whereas the first (low) and fourth (high) quarters each had larger ranges. There were three lower outliers (defined as numbers smaller than quartile one minus one and a half times the interquartile range)—two from Catholic schools and one from a Government school, and two upper outliers—one each from a Government and an Independent school. These outliers were checked, found to be correct, and retained in the sample.

4.1.1.5 Schools' year five NAPLAN reading mean scores

Schools' year five NAPLAN reading mean scores were also gathered as a proxy measure of their students' reading achievement in 2014. This data was available for 135 of the 150 schools in the sample. The Australian year five NAPLAN reading mean was 501.
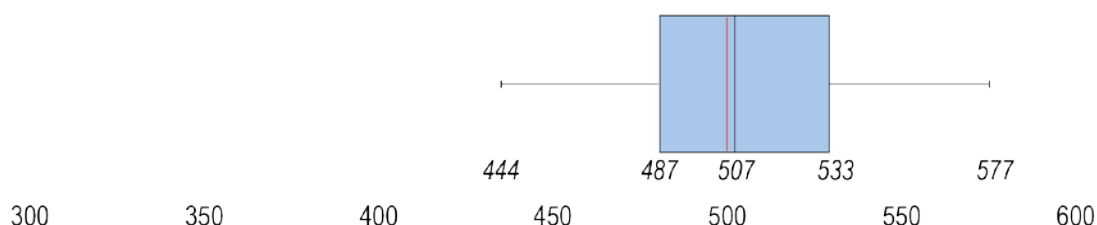
Figure 4.5. Box and whisker plot showing the distribution of the sample schools' year five NAPLAN reading mean scores in 2014 (*N* = 135).
Notes: Minimum, maximum, and quartile values shown in italics. Decimals rounded to nearest whole number. Australian mean shown in red.

The sample schools' NAPLAN reading mean scores had a narrower distribution for year five than for year three students in 2014, with no outliers. The lowest score was 444 and the highest was 577, with a median of 507 and a mean of 509—slightly higher than the Australian mean of 501.

4.1.2 Report of offering a literacy intervention

This section explores schools' self-report of offering one or more literacy interventions for students with literacy difficulties—either on their website and/or in their annual report—and examines the demographics of these schools.

Literacy interventions were widely offered by schools in the sample. One hundred and fourteen (76%) of the 150 schools reported offering one or more literacy intervention on their school website and/or in their annual report. Many schools offered multiple

interventions, and the largest reported quantity was eight. The mean and median number of interventions offered by the 114 schools was two.

As there was no established body of research describing the proportions of literacy intervention provision in schools of different types, sizes, socio-educational advantage levels, or with different measured reading achievement in Victoria or Australia; the reported percentage of 76% for this overall sample was hypothesised to be the expected percentage within each of the demographic variables.

Table 4.1

Descriptive statistics and results of chi-square test for schools offering literacy interventions by sector (N=150)

Lit. Int. offered?	School sector			
	Govt. *N*=95	Catholic *N*=36	Independent *N*=19	Variable totals
Actual yes*	69 (73%)	36 (100%)	9 (47%)	114 (76%)
Expected yes	(76%)	(76%)	(76%)	114 (76%)

Note. Numbers in parentheses indicate cell percentages. All percentages rounded to nearest whole number.
χ^2 =20.499, df = 2
*p < 0.001

Table 4.1 shows the number and percentages of Government, Catholic, and Independent schools that reported offering one or more literacy interventions, and compares these with the expected percentage of 76%. Catholic schools unanimously reported offering literacy intervention/s, whilst nearly three quarters (73%) of Government schools, and just under half (47%) of Independent schools reported doing so. Pearson's chi-square test for goodness of fit was performed to explore these differences, demonstrating a highly significant relationship between school sector type and report of offering a literacy intervention (p < 0.001). These differences between the expected and actual proportions of Government, Catholic, and Independent schools offering literacy interventions have less than one in 1000 chance of occurring due to chance, suggesting a very strong association between schools' sector funding type and their likelihood of offering a literacy intervention.

Table 4.2

Descriptive statistics and results of chi-square tests for schools offering literacy interventions by roll size, ICSEA number, and years three and five NAPLAN reading means

Variables	Lit. Int. offered?	Quarters for each variable				
		Low	Low-average	High-average	High	Variable total
Roll size* N=150	Actual yes	22 (59%)	31 (82%)	33 (87%)	28 (76%)	114 (76%)
	Expected yes	(76%)	(76%)	(76%)	(76%)	114 (76%)
ICSEA N=150	Actual yes	32 (82%)	26 (68%)	26 (72%)	30 (81%)	114 (76%)
	Expected yes	(76%)	(76%)	(76%)	(76%)	114 (76%)
NAPLAN 3 N=141	Actual yes	26 (72%)	30 (86%)	27 (77%)	27 (77%)	110 (78%)
	Expected yes	(78%)	(78%)	(78%)	(78%)	110 (78%)
NAPLAN 5 N=135	Actual yes	29 (83%)	27 (82%)	26 (72%)	25 (81%)	107 (79%)
	Expected yes	(79%)	(79%)	(79%)	(79%)	107 (79%)

Notes. Numbers in parentheses indicate cell percentages. All percentages rounded to nearest whole number. Uneven quarters due to multiple data values at the 25th, 50th, and 75th percentiles.
Roll size χ^2 = 8.469, df = 3. *$p < 0.05$
ICSEA χ^2 = 2.758, df = 3. *ns.*
NAPLAN 3 χ^2 =1.945, df = 3. *ns.*
NAPLAN 5 χ^2 =1.528, df = 3. *ns.*

Table 4.2 reports the number and percentages of schools in each quarter of the four continuous variables that reported offering one or more literacy interventions. This table shows that well over half of the schools in each quarter of each variable reported offering intervention/s, with some differences between the percentages for each quarter. The largest difference observed was that schools with low rolls (in the first quarter for school size) were less likely to offer interventions than schools with low-average, high-average, or high rolls.

Chi-square tests of goodness of fit were performed on each variable to test the significance of differences between the categories. There was a significant ($p=<0.5$) relationship between school roll size and report of offering an intervention, suggesting an association between these variables. The chi-square test results showed no significance between each of schools' ICSEA numbers, NAPLAN year three, or NAPLAN year five mean scores; and their likelihood of offering a literacy intervention, upholding the null hypothesis for these variables, and suggesting that the small differences in the percentages of schools offering literacy interventions across the quarters of these variables are likely to be due to chance.

4.1.3 Types of literacy interventions offered

The 114 schools in the online data scan reported offering 35 different intervention programs and/or a non-program specific literacy intervention for students with literacy difficulties.

Table 4.3

Literacy interventions offered at 150 Victorian schools

Program name	No. Schools	Instructional focus
Reading Recovery (Clay, 1993, 2005, 2016)	78	Literacy
Non-program specific literacy intervention	65	Literacy
Literacy Learning Intervention	9	Literacy
Bridges ("Bridges", n.d.)	8	Literacy
Early Reading Intervention Knowledge - ERIK (McCusker, Connell, & Dalheim, 2009)	8	Literacy
MULTILIT (Multilit, 2007)	7	Reading
Rainbow Reading ("Rainbow Reading", n.d.))	5	Reading
Toe by Toe (Cowling & Cowling, 1993)	4	Reading
Literacy Numeracy Special Needs Funding (CEOM, n.d.b)	4	Literacy
Quicksmart ("Quicksmart", n.d.)	3	Reading
Phonological Early Reading Instruction - PERI (CEOM, n.d.c)	3	Phonological
LEXIA (Lexia Learning Systems, n.d.)	3	Reading
MINILIT (Multilit, 2011)	2	Reading
Cued articulation (Passy, n.d.)	2	Phonological
Corrective reading (Science Research Associates, n.d.)	2	Reading
Fast ForWord (LearnFast, n.d.)	2	Cognitive
Early Years Koorie Literacy Intervention (DET, n.d.a)	2	Literacy
Unbranded phonemic/phonological intervention	2	Phonological
Dyslexia Coach	1	Unknown
I Can Read	1	Reading
Arrowsmith ("Arrowsmith program", n.d.)	1	Cognitive
Reading for Life (Tracey, 2004)	1	Reading
PRELIT (Multilit, 2012)	1	Phonological
Rapid Reading (Pearson Primary, n.d.)	1	Reading
Assistive technology	1	Unknown
Catch Up Literacy ("Catch up", n.d.)	1	Reading

Yachad Accelerated Learning Project (Doecke, Doig, Groves, & Wells, 2010)	1	Literacy
Arrow ("Arrow tuition", n.d.)	1	Reading
Successmaker (Pearson, n.d.)	1	Reading
Literacy Support	1	Literacy
Catch a Falling Star (CEOM, n.d.)	1	Literacy
Legends	1	Reading
Stareway to spelling (Cowling & Cowling, 2002)	1	Spelling
Spelling Mastery (McGraw-Hill, n.d.)	1	Spelling
Strideahead: An aid to comprehension (Cowling, 2001)	1	Reading
Express Write	1	Writing

Table 4.3 lists the literacy intervention programs schools reported offering in this online data scan. It identifies the number of schools offering each program, and when possible, the instructional focus of the program. The most common instructional focus was reading (15 interventions), followed by overall literacy (reading, writing, and, in some cases, oral language—10 interventions). Other programs focused on a particular literacy sub-skill such as phonological awareness (four interventions), spelling (two interventions), or writing (one intervention). Two programs focused on cognitive brain training. Schools reported offering two other methods—a dyslexia coach and assistive technology—but it was not possible to determine the instructional foci of these.

Three types of literacy interventions were selected from the above list for further analysis: Reading Recovery, which 78 (52%) schools reporting offering; non-program-specific literacy intervention, which 65 (43%) schools reporting offering; and a combined variable of one or more of the 34 other programs, which fifty schools (33%) reported offering.

4.1.4   Combination of programs offered
Schools frequently reported offering more than one literacy intervention. Table 4.4 shows how the three types of interventions overlapped in many of the schools.

Table 4.4

Types and combinations of interventions offered

Type of intervention offered				No. schools
None	Reading Recovery	Non program specific lit. int.	One or more other	
•				36
	•			23
		•		20
			•	9
	•	•		21
	•		•	17
		•	•	7
	•	•	•	17
				150

As shown in Table 4.4, 52 schools offered one of Reading Recovery, non-program specific literacy intervention, or one or more other program; 45 schools offered interventions from two; and 17 schools offered interventions from all three of these groupings. This table shows that schools did not necessarily offer one type of program over another, which is important when interpreting the following sections which explore the relationships between schools' demographics and the interventions they offered.

4.1.5 Schools offering Reading Recovery

Seventy eight schools (52%) reported offering Reading Recovery. Cross tabs were used to explore relationships between schools' demographic and achievement variables, and whether or not they offered Reading Recovery.

Table 4.5

Descriptive statistics and results of chi-square test for schools offering Reading Recovery by sector (N=150)

Reading Recovery?	School sector*			
	Government *N*=95	Catholic *N*=36	Independent *N*=19	Variable totals
Actual yes	40 (42%)	34 (94%)	4 (21%)	78 (52%)
Expected yes	(52%)	(52%)	(52%)	78 (52%)

Note. Numbers in parentheses indicate cell percentages. All percentages rounded to nearest whole number. $\chi^2 = 37^*$, df = 2. *$p < 0.001$

Table 4.5 shows very marked differences between the proportions of schools from each sector that reported offering Reading Recovery. Nearly all Catholic schools in the sample (94%) reported offering this program whereas less than half of Government schools (42%) and less than one quarter of Independent schools (21%) reported doing so. The Pearson's chi-square test results show a strong, statistically significant relationship ($p < 0.001$) between differences in school sector and the likelihood of offering Reading Recovery.

Table 4.6

Descriptive statistics and results of chi-square tests for schools offering Reading Recovery by roll size, ICSEA number, and years three and five NAPLAN reading means

		Quarters for each variable				
Variables	R. Recovery?	Low	Low-average	High-average	High	Variable total
Roll size* N=150	Actual yes	13 (35%)	25 (66%)	22 (58%)	18 (49%)	78 (52%)
	Expected yes	(52%)	(52%)	(52%)	(52%)	78 (52%)
ICSEA N=150	Actual yes	20 (51%)	19 (50%)	15 (42%)	24 (65%)	78 (52%)
	Expected yes	(52%)	(52%)	(52%)	(52%)	78 (52%)
NAPLAN 3 N=141	Actual yes	17 (47%)	19 (54%)	23 (66%)	18 (51%)	77 (55%)
	Expected yes	(55%)	(55%)	(55%)	(55%)	77 (55%)
NAPLAN 5 N=135	Actual yes	19 (54%)	17 (52%)	21 (58%)	19 (61%)	76 (56%)
	Expected yes	(56%)	(56%)	(56%)	(56%)	76 (56%)

Notes. Numbers in parentheses indicate cell percentages. All percentages rounded to nearest whole number. Uneven quarters due to multiple data items at the 25th, 50th, and 75th percentiles.
Roll size χ^2 =7.807, df = 3. *$p < 0.05$
ICSEA χ^2 = 4.062, df = 3. *ns.*
NAPLAN 3 χ^2 = 2.678, df = 3. *ns.*
NAPLAN 5 χ^2 = 0.739, df = 3. *ns.*

Table 4.6 shows that a range of schools offered Reading Recovery, with some differences within and between the variables. Pearson's chi-square test for goodness of fit results show that school roll size demonstrated statistically significant differences ($p < 0.05$), suggesting an association between the size of a school and its likelihood of offering Reading Recovery, with the cross tab table identifying that schools with a low roll size were much less likely to offer this program than schools with average and high rolls. Chi-square results showed no other significant relationships, suggesting that schools' ICSEA number and NAPLAN reading achievement at years three and five are not associated with their likelihood of offering Reading Recovery.

4.1.6 Schools offering non-program specific literacy interventions

Non-program specific literacy interventions were offered by 65 schools (43% of the sample).

Table 4.7

Descriptive statistics and results of chi-square test for schools offering non-program specific literacy interventions by sector (N=150)

	School sector*			
N.P.S. Lit. Int?	Government *N*=95	Catholic *N*=36	Independent *N*=19	Variable totals
Actual yes	45 (47%)	17 (47%)	3 (16%)	65 (43%)
Expected yes	(43%)	(43%)	(43%)	(43%)

Note. Numbers in parentheses indicate cell percentages. All percentages rounded to nearest whole number. $\chi^2 = 6.722$, df = 2. *$p < 0.05$

Table 4.7 shows the relationship between school sector and report of offering a non-program specific literacy intervention. Forty seven percent of Government and Catholic schools offered such programs, whilst only 16% of Independent schools did so. Pearson's chi-square test for goodness of fit results show that these differences are statistically significant, suggesting that school sector is associated with schools' likelihood of offering a non-program specific literacy intervention.

Table 4.8

Descriptive statistics and results of chi-square tests for schools offering non-program specific literacy interventions by roll size, ICSEA number, and years three and five NAPLAN means

Variables	N.P.S. Lit. Int.?	Quarters for each variable				
		Low	Low-average	High-average	High	Variable total
Roll size* N=150	Actual yes	12 (32%)	18 (47%)	24 (63%)	11 (30%)	65 (43%)
	Expected yes	(43%)	(43%)	(43%)	(43%)	(43%)
ICSEA N=150	Actual yes	20 (51%)	16 (42%)	15 (42%)	14 (38%)	65 (43%)
	Expected yes	(43%)	(43%)	(43%)	(43%)	(43%)
NAPLAN 3 N=141	Actual yes	17 (45%)	15 (43%)	15 (43%)	15 (43%)	62 (44%)
	Expected yes	(44%)	(44%)	(44%)	(44%)	(44%)
NAPLAN 5 N=135	Actual yes	20 (57%)	15 (45%)	12 (33%)	14 (45%)	61 (45%)
	Expected yes	(45%)	(45%)	(45%)	(45%)	(45%)

Notes. Numbers in parentheses indicate cell percentages. All percentages rounded to nearest whole number. Uneven quarters due to multiple data items at the 25th, 50th, and 75th percentiles.
Roll size χ^2 =10.913, df = 3. *p < 0.02
ICSEA χ^2 = 1.523, df = 3. *ns.*
NAPLAN 3 χ^2 = 0.207, df = 3. *ns.*
NAPLAN 5 χ^2 = 4.043, df = 3. *ns.*

Table 4.8 explores the relationships between the four continuous variables, and schools' report of offering non-program specific literacy intervention/s. Pearson's chi-square test results showed that only school roll size had a statistically significant relationship ($p < 0.02$) with whether or not schools offered non-program specific interventions. Schools in the low and high categories for roll size were less likely to offer these programs than schools in the interquartile range, and schools with high-average rolls were the most likely to do so. As with Reading Recovery, the chi-square tests showed no relationship between schools' likelihood of offering non-program specific literacy intervention/s and either their ICSEA number or NAPLAN reading mean scores.

4.1.7   Schools offering one or more other programs
Fifty schools reported offering one or more other literacy interventions.

Table 4.9

Descriptive statistics and results of chi-square test for schools offering one or more other program/s by sector (N=150)

	School sector*			
Other program/s?	Government *N*=95	Catholic *N*=36	Independent *N*=19	Variable totals
Actual yes	26 (27%)	20 (56%)	4 (21%)	50 (33%)
Expected yes	(33%)	(33%)	(33%)	(33%)

Note. Numbers in parentheses indicate cell percentages. All percentages rounded to nearest whole number. $\chi^2 = 10.811^*$, df = 2. $^*p < 0.01$

Table 4.9 shows the number and percentages of Government, Catholic, and Independent schools that reported offering one or more other programs, in relation to the expected proportion of 33%. Pearson's chi-square results showed statistically significant differences ($p < 0.01$) between these categories. Catholic schools were more than twice as likely to offer these other programs in comparison with either Independent or Government schools.

Table 4.10

Descriptive statistics and results of chi-square tests for schools offering one or more other literacy intervention by roll size, ICSEA number, and years three and five NAPLAN reading means

Variables	Other program?	Quarters for each variable				
		Low	Low-average	High-average	High	Variable total
Roll size* *N*=150	Actual yes	4 (10%)	17 (45%)	16 (42%)	13 (35%)	50 (33%)
	Expected yes	(33%)	(33%)	(33%)	(33%)	50 (33%)
ICSEA *N*=150	Actual yes	9 (23%)	15 (39%)	12 (33%)	14 (38%)	50 (33%)
	Expected yes	(33%)	(33%)	(33%)	(33%)	50 (33%)
NAPLAN 3 *N*=141	Actual yes	8 (22%)	18 (51%)	13 (37%)	11 (31%)	50 (35%)
	Expected yes	(35%)	(35%)	(35%)	(35%)	50 (35%)
NAPLAN 5 *N*=135	Actual yes	13 (37%)	14 (42%)	11 (31%)	11 (35%)	49 (36%)
	Expected yes	(36%)	(36%)	(36%)	(36%)	(36%)

Notes. Numbers in parentheses indicate cell percentages. All percentages rounded to nearest whole number. Uneven quarters due to multiple data items at the 25th, 50th, and 75th percentiles.
Roll size χ^2 =12.039, df = 3. *$p < 0.01$
ICSEA χ^2 = 2.829, df = 3. *ns.*
NAPLAN 3 χ^2 = 6.948, df = 3. *ns.*
NAPLAN 5 χ^2 = 1.069, df = 3. *ns.*

Table 4.10 shows the relationships between the four continuous variables and report of offering one or more other literacy intervention. Pearson's chi-square results show a statistically significant (p < 0.01) association between schools' roll size, and their likelihood of offering one or more other programs; schools with low rolls were much less likely to do so, and schools with high rolls moderately less likely to do so than schools in the interquartile range. The other variables showed no statistically significant association, supporting the null hypotheses that there are no relationships between either schools' ICSEA number or NAPLAN reading means, and their report of offering one or more other literacy intervention/s.

4.1.8   Online data scan summary

This section has presented data from an online data scan using descriptive statistics, cross tabs, and Pearson's chi-square test for goodness of fit, in order to explore the prevalence and types of literacy interventions used in Victoria. The results demonstrate that literacy interventions were commonly offered across Victorian schools of different types, sizes, and with differing levels of socio-educational advantage, and measured reading achievement. Schools reported offering a wide range of programs, including Reading Recovery, non-program specific literacy interventions, and one or more of a range of other programs.   School sector was the variable with the strongest relationship with whether schools offered intervention programs for students with literacy difficulties: Catholic schools unanimously offered some kind of program, and were most likely to offer Reading Recovery and one or more other program; Government schools were moderately likely to offer some kind of intervention, and equally (with Catholic schools) likely to offer non-program specific literacy interventions; and Independent schools were least likely to offer interventions. Roll size showed a moderate relationship with whether schools offered an intervention overall, and whether they offered each of the intervention types, with small schools (low rolls) less likely to offer literacy interventions overall, and large schools (high rolls) less likely to offer non-program specific interventions and one or more other program/s.

The following sections present qualitative data describing why questionnaire and case study schools offer particular interventions, and explaining how these programs operate within their particular school settings.

4.2   School questionnaire data

Nine Victorian principals completed an anonymous online questionnaire about the literacy interventions offered at their schools. This small data set is presented to provide qualitative information on these respondents' perceptions of their schools' literacy intervention/s, and to illustrate some of the factors influencing schools' choice of literacy intervention. Table 4.11 provides an overview of these nine schools' demographics and intervention programs.

Table 4.11

Literacy interventions offered in nine Victorian Schools

				Name of literacy intervention offered					
School No.	School type	Roll quarter	% reading difficulties	Reading Recovery	Non-program specific literacy intervention	Reading for Life	Language Enhancement Activity Program	Accelerated Literacy	Koorie Literacy Intervention
1	Gov.	L	0%						
2	Gov.	L	51%			●	●		
3	Gov.	HA	15%		●				
4	Gov.	L	30%		●				
5	Cat.	L	16%	●		●			
6	Gov.	H	5%		●				
7	Gov.	HA	12%	●				●	
8	Gov.	H	13%	●					
9	Gov.	H	*	●	●				●

Notes. All percentages rounded to the nearest whole number.
*Principal did not answer this question.
Roll quarters: low = 12-158 students; low-average = 159-311 students; high-average = 312-482 students; and high = 483-2819 students.

In Table 4.11, schools' roll size is shown using the quartile distribution categories from the online data scan, both to contextualise questionnaire schools in relation to the wider online sample, and to avoid presenting specific roll sizes as these, together with the other demographic information, could be used to identify the participating schools. Principals' estimates of the proportion of students with reading difficulties at their schools in 2014 are represented as a percentage of their school's overall roll. Few principals provided their school's ICSEA number in the questionnaire, and so this variable has not been presented. The nine questionnaire schools comprised eight Government schools and one Catholic school, four with low rolls, two with high-average rolls, and three with high rolls. The proportion of students with reading difficulties at each school ranged from 0% to 51%, and one principal omitted a response to this question.

Eight principals reported offering reading interventions for students with literacy difficulties, and one reported not doing so—explaining that their school had no students with reading difficulties on the roll at that time. Six different interventions were named: Reading Recovery, Reading for Life, Language Enhancement Activity Program (LEAP), Accelerated Literacy, Koorie Literacy Intervention, and non-program specific literacy learning support. Four of the schools offered two or more interventions.

4.2.1   Advantages and challenges of the named interventions.

Principals described a number of advantages of, and challenges with, the interventions offered at their schools in their questionnaire responses. Responses ranged in length from explanatory paragraphs to brief responses of one sentence. Two principals did not respond to this question (one of whom explained that their school's intervention had not been running for sufficient time to comment). In the following section, these responses are summarised by literacy intervention, and grouped under five focused themes: logistical considerations; learning; literacy development; relationships; and expertise. The school identifying numbers used in Table 4.11 are provided after each response.

4.2.1.1 Reading Recovery

Four schools—three Government and one Catholic—offered Reading Recovery, a one-to-one literacy intervention for the lowest quintile of year one students, which has the aim of accelerating students' reading achievement to the average level of their classmates.

Logistical considerations: All four principals made positive comments about the one-to-one support provided by Reading Recovery. The small number of students who could participate in the program was identified as a disadvantage by three principals (5, 7, 8), and two principals commented on the high cost of the program (5, 8).

Relationships: Positive Reading Recovery teacher-to-student relationships were commented on by two principals (7, 5), and increased parent-to-school relationships were noted by one (5). A positive relationship between the classroom and Reading Recovery teacher, and their pedagogical programs, was described by one principal (5), whereas another principal identified disconnects between the two learning settings (9).

Learning: Two principals (5, 7) commented on the individualised or targeted approach to learning in Reading Recovery, with one describing the additional benefits of referring on students who had not made expected progress, and monitoring students over time (5).

Literacy development: One principal stated that "it works" (8) whilst another said "it generally allows students... to accelerate their learning" (5).

Expertise: One principal commented that it was an advantage that Reading Recovery teachers were trained (7), and another described how the Reading Recovery teacher shared their expertise with the classroom teacher (5).

4.2.1.2 Literacy Support

Four schools offered their own non-program-specific literacy support program. Of these, three principals offered advantages and two gave disadvantages for their respective interventions. The fourth principal noted that their school's program had not been running for sufficient time to comment.

Logistical considerations: The smaller or individual group size was mentioned by three principals as an advantage (3, 6, 9). However, one principal commented that these groupings made timetabling difficult (3).

Learning: Two principals described how the more homogenous groupings formed by withdrawing a lower group for intervention enabled more specialised teaching time for both the lower group with literacy difficulties, and for the rest of the class (3,6), and one principal stated that students felt more comfortable working in their homogenous groups (3).

Literacy development: One principal explained that the program had been positive in moving students forward (3).

Expertise: A disadvantage was identified in that the integration aides at one school required additional assistance from classroom teachers in delivering their intervention (9).

4.2.1.3 Reading for Life

Two schools offered Reading for Life—a one-to-one reading program for students in years two and up, which is delivered by trained volunteers. The aims of the program are to improve reading achievement, motivation to read, and self-esteem.

Logistical considerations: The one-to one delivery environment was noted as an advantage (2, 5). Disadvantages were finding enough reliable volunteers and timetabling (5). Whilst the cost-effectiveness of Reading for Life was cited as an advantage, the same principal shared that finding the financial support to meet its costs was a disadvantage (5).

Learning: The program's focused and targeted approach was identified as an advantage (2, 5).

Expertise: One principal described the volunteer training, and the expertise of the psychologists who developed the program, as further advantages (5).

Relationships: One principal explained that the volunteer aspect of the program brought the community together and provided the students with mentors (5).

4.2.1.4 Other programs

One school offered LEAP, a small group literacy program emphasising skill development through explicit teaching.

Logistical considerations, learning: Advantages identified for this program were its small group size, and targeted instruction (2).

One school offered Koorie Literacy Intervention, which may be part of the Early Years Koorie Literacy and Numeracy program (DET, n.d.b). This program provides additional funds to employ extra teachers or release classroom teachers to deliver focused intervention for Indigenous students with (in this case) literacy difficulties.

Logistical considerations: The principal opined that this was an under-resourced area in which demand exceeded supply (8).

One school offered Accelerated Literacy, which may refer to the *National Accelerated Literacy Project* (Cowey, 2005), which was designed to improve the literacy of marginalised students. No comments were made about the advantages or disadvantages of this intervention.

4.2.2   Summary

The questionnaire data offered insights into literacy intervention provision at nine schools, and contributed data on principals' perspectives on the programs or approaches offered.

Inductive analysis of the qualitative responses suggested that principals consider a number of factors when evaluating literacy interventions: Logistical considerations; the learning emphasis of the program; students' literacy development; teacher expertise; and relationships between students, teachers, and parents.

4.3   School case studies

This section presents narrative accounts of literacy intervention provision and implementation in two contrasting case study schools: Sacred Heart, a Catholic school; and Sandy Bay, a Government school. These cases provide a contextualised snapshot of why two Victorian schools offered particular literacy interventions, and how these programs operated in each setting. They provide situated examples of the three major types of programs identified in the online data scan: Reading Recovery; non-program specific literacy learning support; and Reading for Life—from the one or more other programs category. The data from these contrasting school settings show how different sectors' policy and funding models influenced literacy intervention provision in each site, and suggest explanations for the school sector differences identified in the online data.

These narratives begin by setting each school's demographic data in the context of other Victorian schools, using the demographic variables and quartile groupings from the online data scan. Key characteristics of each school, and its literacy learning environment are identified. Participants' perceptions about literacy difficulties and effective interventions are related, and each school's approach to literacy intervention is described, using data and vignettes from the principal, teacher, literacy intervention teacher and tutor, student, and parent interviews. Finally, challenges in implementing these programs are identified.

4.3.1   Sacred Heart School
Table 4.12

Sacred Heart School's 2014 demographic data

Variables	Quartile distribution groupings			
	Low	Low-average	High-average	High
ICSEA no.	●			
Roll size	●			
NAPLAN 3			●	
NAPLAN 5		●		

Sacred Heart School is a small Catholic school in a metropolitan area in the South-Eastern region of Victoria. It characterises itself as a community school with a strong focus on

collective endeavour and relationships. Whilst Sacred Heart's ICSEA number falls in the first quartile of the online sample described earlier; its school community is more socio-educationally advantaged than the communities of the other (Government) schools in the area and, as a Catholic school, Sacred Heart caters for students whose parents have chosen to make an alternate school choice, and are able to meet its modest school fees. Despite its relative local advantage, inter-generational unemployment and complex family relationships were cited as challenges facing some of Sacred Heart's students. In 2014, Sacred Heart's mean NAPLAN reading score at year three was in the high-average quarter of the online data sample, and substantially above similar schools (ACARA, n.d.g). The school's year five mean NAPLAN reading score in 2014 was in the low-average quarter, and close to that of similar schools (ACARA, n.d.g).

As a Catholic school in the Archdiocese of Melbourne, Sacred Heart is regulated by clear policies for literacy instruction, achievement, and intervention. It implements programs and interventions based on the Catholic Education Office: Melbourne's (CEOM) Literacy Projects, and also incorporates elements from previous projects such as CLaSS (Hill & Crévola, 1999, 2005). At Sacred Heart, student learning and wider development are viewed as collective enterprises which occur with the support of staff, parents, and the community. Responsibility for students' learning is shared between these parties, and positive relationships are considered pivotal. Teachers are expected to know their students well, and this relationship is believed to be a cornerstone to effective teaching. Henry—Sacred Heart's principal—emphasised this, stating:

> Other than that, you know, it's very important obviously that their, apart from their family, their most important teacher is their teacher. So the teacher needs to be very supportive of them, and interested in the students, and that's the same for every teacher, you know, throughout the world. (Henry)

Sacred Heart School gathers a range of formal literacy assessment data to monitor students' progress and to identify students in need of intervention. Some assessments are mandatory as part of the CEOM assessment schedule, whilst others are chosen to fit the needs of the school. The Observation Survey (Clay, 1993b, 2013) is used to assess students at the end of their first year at school. Running records, including the Alpha Assess kit ("Alpha Assess", 2007) are used primarily with students in the first three years of school, and online Lexile (Scholastic, n.d.a) reading comprehension assessments are used in the older years. The standardized Progressive Achievement Tests (Stephanou, Anderson, & Urbach, 2008) are used annually, and the Burt word reading test (Gilmore,

Croft, & Reid, 1981) bi-annually. Teachers engage in other ongoing assessments with students in their classes, including informal and observational tasks. The staff at Sacred Heart noted that they were well resourced in terms of library books and other reading materials, which supported their delivery of classroom literacy programs.

Sacred Heart implements two individual withdrawal interventions in addition to students' classroom literacy instruction—Reading Recovery and Reading for Life. Reading Recovery was the nominated early literacy intervention for CEOM schools at the time of data collection (CEOM, n.d.a), whereas Reading for Life is a less common program, but one which is offered by all primary schools in Sacred Heart's local area, and is funded in each of these schools by community organisations. There were three case study students at this school: Georgia in Reading Recovery; Oliver in Reading for Life; and Brydie who had participated in both of these interventions. If Sacred Heart students continue to struggle with print literacy despite participating in an intervention, additional information about their learning difficulties and needs is sought through the student services team at CEOM, and from outside specialists such as optometrists.

4.3.1.1 Beliefs and understandings about literacy difficulties and interventions

At Sacred Heart School, literacy difficulties are understood to have a number of possible causes, ranging from medical difficulties such as vision problems, cognitive disabilities such as dyslexia, and affective factors such as a lack of student interest, confidence, and motivation. Insufficient parental support, with particular reference to parents not reinforcing school reading practices at home, was suggested by staff as a factor contributing to some students' literacy difficulties.

Sacred Heart staff presented literacy interventions as a positive opportunity for students with literacy difficulties, expressing their belief that all students deserve the chance to improve, and explaining that it is worth investing in interventions to facilitate their development. Individual, or one-to-one, intervention is highly valued and is believed to have both academic and affective benefits for students. All participants spoke positively about the interventions offered at Sacred Heart, with parents particularly enthusiastic about their child's opportunity/ies to participate in an intervention program. Staff, volunteer tutors, and parents were careful to point out that the interventions provided were in addition to quality classroom teaching, and these participants explained that students' literacy improvement was a result of both classroom and intervention learning.

Teachers, tutors, and students had various suggestions for what makes an effective literacy intervention including: specific content such as regular reading, writing, and oral language;

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explicit teaching; and fun, game based learning. They were clear that one program would never suit all students, for example, Joan (Reading for Life tutor) explained: "you're not going to be able to put a blanket reading intervention program together and hope that it will suit everybody. I think making sure that they're personalised". Teachers and tutors agreed that a good intervention was one that was targeted to the students' needs. Henry also explained that the quality of the personnel delivering interventions was vital, stating that: "If you haven't got great people, it doesn't matter what program you're running".

Participants shared their thoughts about how best to transition students out of interventions whilst maintaining their literacy improvements. The adult participants identified that communication, both between the intervention and classroom teachers, and between home and school; and monitoring to ensure students continued to progress, were important factors. In addition, some participants suggested that less frequent one-to-one sessions with a teacher, tutor, or volunteer might help students to transition out of a program whilst maintaining and building on their new found skills and strategies.

4.3.1.2 Reading Recovery

As discussed in earlier sections, Reading Recovery (Clay, 1985, 1993a, 2005, 2016) is a second wave, one-to-one intervention that aims to accelerate young students' literacy learning through daily half-hour lessons which focus on oral language, reading levelled texts, and writing short stories. It emphasises teaching students a range of strategies in the context of reading and writing real texts. This section provides additional pedagogical, teacher, and participant information about this program.

Reading Recovery is individualised in that its learning activities are targeted to students' areas of need as identified in the Observation Survey (Clay, 1993b, 2013), an assessment comprising: five norm-referenced tasks—letter and/or sound identification, Concepts About Print, word reading, word writing, and Hearing and Recording Sounds in Words (a sentence dictation task); and three running records—to obtain students' reading book levels on easy (95-100% accuracy), instructional (90-94% accuracy), and hard (< 90% accuracy) texts. A Reading Recovery program typically runs for 20 weeks and aims to bring students' reading achievement to a level that enables them to participate in classroom programs alongside the average readers in their class (Clay, 1993a, 2016). Participating students' progress is formally measured using running records to monitor growth in reading book level throughout the program, and by repeating the Observation Survey at the end of the program. Graduated or discontinued Reading Recovery students' reading achievement is monitored throughout their primary years. A secondary aim of Reading

Recovery is to identify students with more severe literacy difficulties who do not make expected progress in Reading Recovery. These students are referred on for further assessment to gain an understanding of why they did not respond to this intervention, and to diagnose their specific needs. Referred on students may receive additional support in the future.

Reading Recovery teachers are qualified and experienced junior primary teachers. They attend fortnightly training for a year to become qualified as Reading Recovery teachers, and continue to attend regular professional development throughout their employment in this role (Clay, 1993a).

4.3.1.2.1 Reading Recovery at Sacred Heart School

> There is very much a cohort of kids that really need a very powerful one-on-one intervention. So we've always said, 'well yes, it's very costly, however if we can move these children along, you know, how can you measure that?' For the rest of their life, if they're able to read, that's just immeasurable, not only to the student, their well-being, their life chances, but further to society as well (Henry).

Sacred Heart School has one Reading Recovery teacher—Maria—who teaches approximately six Reading Recovery students each year, and also works as a literacy coach and classroom teacher across the school. She has been teaching Reading Recovery for eight years, four of which have been at Sacred Heart. Maria teaches Reading Recovery in a small, bright office with posters, literacy and phonics charts, adult and child sized chairs and tables, and a small magnetic whiteboard. Her Reading Recovery students are usually drawn from the lowest achievers in reading in year one, although sometimes students may begin their Reading Recovery program towards the end of their prep year. Maria's students may include those funded for integration support in the classroom or with identified learning needs if they are also in the lowest quintile for reading in year one. As a Reading Recovery teacher within the CEOM system, Maria's goal is to discontinue her students from their Reading Recovery program at a reading level that will enable them to progress with their peers in the classroom, and meet the CEOM benchmark of reading at level 20 by the end of year one. Maria provides individualised Reading Recovery programs to each of her students based on their needs as identified in the Observation Survey, and adjusted in relation to their ongoing progress. In our interviews, Maria explained that it was important for trained teachers to work one-to-one with students in this early intervention, noting that Reading Recovery teachers drew on their expertise in making continuous skilled adjustments to students' programs.

Maria described a typical Reading Recovery session, explaining its structured routine and activities, and her roles during the different parts of the lesson.

> So we usually start off with familiar reading and during that time I like to listen and just hear what she's doing, what she's using, what strategies she's using, how she's sounding, noticing where she's stopping and thinking about maybe why. Then we do the running record of the seen text from the day before, and that's kind of a silent time, there's not help, there's no guidance, there's no chipping in, it's just the running record. We then do a little bit of talk around words, we sometimes use magnetic letters, we might use the sand box to do letters, we might just talk about letter formation—if she's got a particular letter she's not forming or a confusion. We then do writing, so often that comes from her understanding of what she's been doing in her life, or we might write about the book that she's been reading. And then do the cut up sentence and put that together.. And then we do the new book which is chosen by me, the book which I think is that little bit of a challenge but it's still within her reach. So that's kind of the teaching part where we're looking to really work on a skill and consolidate a skill. And all that happens in 30-35 minutes! (Maria, interview one).

In addition to her outline of a typical Reading Recovery session, Maria explained that in some circumstances she made slight adaptations to Clay's (2005) Reading Recovery procedures, noting that students' specific needs guided these adjustments:

> I do adapt it. I never used to but I'm finding that I do adapt it. Things like when I said with the magnetic letters, sometimes I'll do letter formation and things. I kind of go to the point of need. If she's not forming her 'a' correctly or leaving spaces between words, to me a discussion around that is of greater importance than looking at words in greater detail. So I think, yeah, sometimes I do, I've got another little boy who's on at the moment and we're just doing the alphabet book for term four.. he's still learning his alphabet, and I'll put him on Reading Recovery next year so it's kind of a bit of a lead in to Reading Recovery (Maria, interview two).

In addition to their daily Reading Recovery lessons, Maria's students participate in their classroom literacy and other learning programs, and take home some additional homework

each night: one or more reading books; sight words to practise; and a cut up sentence from that day's Reading Recovery writing to reconstruct.

Kathryn—the preparatory and year one classroom teacher—observed that a strength of Reading Recovery was that it covered the "the whole literacy spectrum", including oral language and writing as well as reading (interview one). Maria explained how, in addition to this holistic literacy focus, her Reading Recovery lessons also developed targeted literacy skills. For example, she described how phonic and phonemic learning are integrated into many of her Reading Recovery activities, such as using the THRASS (Teaching Handwriting, Reading, and Spelling Skills) chart (Davies & Ritchie, 1996), making and breaking words using magnetic letters, using sound boxes when writing, and chunking and blending whilst reading.

Towards the end of a student's Reading Recovery program, Maria draws back to see what the student can do by themselves, in preparation for their return to the classroom where they will receive less individual attention. She sees students regularly after they have been discontinued from Reading Recovery, and if necessary provides some additional individual literacy sessions to ensure that they continue to apply the skills and strategies they have learned in the program.

4.3.1.2.3 Student outcomes

Both Maria and Kathryn were positive about the changes they observed in Reading Recovery students. They noted growth in students' assessment results, and described broader outcomes such as improved reading skills, better use of reading strategies, and improved confidence when tackling learning tasks:

> They're more willing to try different things when they come to an unknown word, they're more willing to go back and re-read, they understand self-correction rather than just reading on. So I think it's instilling those skills, so they may not be the best readers but it's the strategies that they get behind that, that really supports them and makes it valuable (Maria, interview one).

> Their confidence is amazing, you know they just become so much more confident and it flows across to other areas as well, because they're able to read instructions better, you know all those sorts of things, and their story writing improves and everything is just much better (Kathryn, interview one).

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Maria has high expectations for her Reading Recovery students and finds it challenging when students do not make expected progress in the program and are referred on for further assessment. She and Kathryn explained that these referred on students are often found to have more complex learning needs or disabilities that were not yet identified at the time of their Reading Recovery programs. Maria, Kathryn, and Henry acknowledged that Reading Recovery does not necessarily 'fix' students' literacy difficulties, observing that students may need more support in the future. Despite this, they reported that ex-Reading Recovery students had a strong literacy foundation to build on from their time on the program.

4.3.1.2.4 Reading Recovery as part of the wider learning program at Sacred Heart School

> It's certainly not 'well now they're off to Reading Recovery, I have no idea what they're doing beyond the classroom teaching, now they come back, now we go on with our program.' Because of the fact that there's such interaction with the Reading Recovery teacher, because of the fact that the Reading Recovery teacher will be in my classroom today or tomorrow, well during the literacy block, and working with me, with all my students, and also working with the [Reading Recovery] kids, and working with the whole staff in regard to planning and looking at what's working well and what's not working well, in regards to how can we fix it. There's a, it really is, it's an element of a much bigger, global strategy. (Henry)

Reading Recovery is part of the wider, integrated learning system at Sacred Heart School, in which collective responsibility for and communication about students' learning is paramount. Maria's professionalism and expertise were highly valued in the school, and it was described as a particular benefit that she worked in classroom settings as well as in the intervention. School staff explained that both Maria and the relevant classroom teacher take responsibility for Reading Recovery students' literacy learning whilst they are on the program, with other teachers and classroom integration aides also sharing responsibility. Kathryn and Maria described how they regularly liaise about Reading Recovery students during and after their interventions. Students' records inform subsequent teachers of their prior literacy difficulties and participation in Reading Recovery, and Maria monitors discontinued students' progress until they leave Sacred Heart School "so we're able to see if they're slipping back, if they're making further progress, if they've plateaued" (Henry).

Students attending school infrequently or being late to school were raised as factors impacting on Reading Recovery's effectiveness. Teachers also observed that students who

did not complete their homework tasks were less likely to be successful in the program, and shared how school-based solutions were sought to overcome this challenge:

> Sometimes we've had children come onto Reading Recovery and the parents haven't been there to support the child, so then I've gone to the integration aide and said 'look can you please do the sentence, can you please read with them each day?' And that's taking resources away from the classroom but I think if we're going to put them on the program this has to be something that has to happen. So I mean trying to find the alternatives, to get the program as effective as possible (Maria, interview one).

4.3.1.3 Reading for Life

Reading for Life (Tracey, 2004) is a one-to-one tutoring program for students in years two and up who are reading at a level lower than average for their year group. It is a scripted program developed by psychologists, which aims to improve students' reading achievement, motivation, and self-esteem through a 15 week program of weekly tutoring sessions with a trained volunteer. The foci of learning in the program are phonics, sight word recognition, and reading together. All students work through the same program, regardless of where they were placed in their starting assessment.

Reading for Life is promoted as a community program in the local area, and its cost is supported by charities and local businesses. It has been offered in every primary school in the area since 2010, and sixty students from these three schools participated in the program in 2014.

Reading for Life's developers pre and post-test students identified by the schools using a battery of reading and skill assessments, and a motivation towards reading measure. They deliver a three and a half hour training session to the volunteer tutors, who receive a program manual which includes: conversation starters; scripted, timed learning activities; games; and take-home materials.

4.3.1.3.1 Reading for Life at Sacred Heart School

> I think for the children they feel special… Which is good because I thought 'I wonder how they feel coming out of the classroom to work on a skill' but they love it, it's interesting, it's not like 'oh I'm behind all the others so I need help' they look upon it in a positive way. I think the teachers obviously help there too (Paula, Reading for Life tutor).

But it was just someone that wanted to read with him every week, and he's never had that experience before (Debbie, classroom teacher, interview one).

At Sacred Heart, Reading for Life targets students between years two and four. Students need to be at risk of experiencing reading difficulties and to be attending school regularly in order to be considered for a place. Students accessing this program may be reading at levels close to those expected for their year, and may have received help with literacy in previous years. Twenty Sacred Heart students participated in Reading for Life in 2014.

The volunteers who deliver Reading for Life at Sacred Heart include retired parishioners and pre-service teachers from a nearby university. In addition to their training session, volunteers are provided with an orientation session at the school, and are welcomed as part of the school community. The volunteers are regarded by school staff as positive role-models who can offer additional and alternate life experiences and perspectives to students from less advantaged backgrounds. Two Reading for Life tutors were interviewed about their experiences in delivering the program in 2013 and 2014: Paula, a recently retired woman; and Joan, a recently qualified teacher.

4.3.1.3.2   A typical lesson
Joan describes the structured content and delivery of Reading for Life:

> Yes so the manual was very clear, we didn't deviate very much from the manual that we were given. There were step by step sessions so they would look at sight words first, and then each week had a certain program set to it, so one week might be compound words, one week might be something else so it might be syllables, so we were set up with those weeks of learning in the middle, and then they would do their actual reading, and then there was a reflection time at the end. So it was broken down really clearly and the program was set out really well for the student and for the teacher or the buddy (Joan).

Reading for Life reinforces decoding rules, reading strategies, and sight word recognition. It begins with very basic skills, which one teacher noted were considerably lower than what would typically be taught in classroom literacy programs in years two and up. Repeated exposure to skills is emphasised in the program, and these are reinforced through games provided in the tutors' kits, which their students then take home for additional practice. Students like the game based learning, and one teacher commented that: "the games are engaging, which the kids do enjoy, and a lot of them bring the games back into the classroom and play with others" (Debbie, interview one). A feature of the program is

the relationship between the community volunteers and students, and this is believed to improve students' self-esteem and their motivation to read:

4.3.1.3.3 Student outcomes

Learning Links' pre and post-assessment of participating students' reading is comprehensive, consisting of: either the Neale Analysis of Reading Ability—Third Edition (Neale, McKay, & Barnard, 1999), or the York Assessment of Reading for Comprehension—Passage Reading (2012); the SPAT-R (Neilson, 2009); the Reading Self-Concept subtest from the Self-Description Questionnaire (Marsh, 1990), and either the Burt word reading test (Gilmore, Croft, & Reid, 1981), or the York—Single Word Reading Test (2012). Whilst thorough, the post-program assessment data can take some time to arrive. From the school's perspective, success in Reading for Life is measured through school and classroom assessment data, together with observed literacy and attitudinal changes in students at home and school, as well as changes in their reading tastes.

At Sacred Heart, all participants were very positive about the outcomes of Reading for Life, whilst being clear that most of the students' literacy achievement is developed through their more comprehensive classroom learning, with Reading for Life serving as an extra learning opportunity. Teachers and tutors described changes in participating students' reading behaviours such as: improved fluency and more accurate decoding; higher assessment results; and increased motivation to read. The principal's perspective was that students' attitudinal change is what drives their literacy development:

> And you can see it because straight away, you know, one of the indicators is in their confidence. So now their confidence improves. So straight away they want to read more, and therefore their reading continues to develop, because they believe they can do it, they start to enjoy it, and so it moves along. (Henry)

The teachers interviewed about Reading for Life acknowledged that the program had a spectrum of effectiveness. They identified that students' willingness to participate in the program, and the quality of the volunteer, impacted on student achievement in the program. Teachers clarified that most students were willing to attend their Reading for Life sessions, and that those who were less positive about this program were similarly disengaged with other areas of their schooling.

4.3.1.3.4   Reading for Life as part of the broader learning program at Sacred Heart School
Reading for Life is marketed to participating and other students as an exciting opportunity. Teachers spoke of the ways in which they promoted the value of the intervention to students, for example:

> And it's not a teacher, that's the other thing. It's 'oh you know, someone special coming to visit you, just to help you read'. And we do a lot of talk about that in the classroom too, 'aren't you lucky, this expert's giving up their time to come and help you because you're important.' So we do a lot of that to give the program importance. (Debbie, interview one)

Communication about each student's Reading for Life program occurs via communication journals which tutors, parents, and teachers write in and many believe that these work well to strengthen the link between home and school. Hazel (classroom teacher) explained that ideally she would like to be able to meet with tutors to hear about their Reading for Life student's progress and needs, but as the principal pointed out, there was not this level of interaction between tutors and teachers as the tutors were volunteers. As a community-wide program, Reading for Life is also understood to extend connections between Sacred Heart and the wider community, and positive relationships between students and tutors were felt to have a positive effect not only on the students, but also the volunteers. For example, Joan shared:

> I think the community volunteers, the adults in the community, get a sense of self-worth, teaching the students something and seeing their growth and development as well is a really positive thing for people, anybody to see growth in a child whether it's your own or somebody else's. I think also remembering that these children are going to be the adults, in a few years' time, of our community, they're going to have our jobs and they're going to be running our adult life. I think it's important to contribute to the growth and development of those students, I think that's nice (Joan).

Joan also discussed how the volunteer program strengthened her pre-service teacher development, by increasing her knowledge of and resources for developing early literacy skills.

Challenges identified with implementing Reading for Life included finding sufficient charitable donations to fund the program across the three schools in the area. At the school

level for Sacred Heart, finding enough reliable volunteers, and timetabling spaces within the school for the program to run were minor obstacles.

This section has narrated how literacy interventions were implemented and understood at Sacred Heart School, a small Catholic school with an emphasis on community relationships. This school's individual, withdrawal interventions—Reading Recovery and Reading for Life—are valued opportunities for students with literacy difficulties to receive additional instruction. At Sacred Heart, raising student achievement and improving students' attitudes to reading are strong foci, which are brought about through effective, collaborative teaching practices, and strong relationships.

4.3.2 Sandy Bay School

Table 4.13

Sandy Bay School's 2014 demographic data

Variables	Quartile distribution groupings			
	Low	Low-average	High-average	High
ICSEA no.			●	
Roll size			●	
NAPLAN 3			●	
NAPLAN 5				●

Sandy Bay School is a larger than average Government school located in a regional seaside town, in an upwardly mobile and fast growing area of Victoria. It is the only primary school in the town, its roll has grown rapidly in recent years, and it draws from a parental community of higher than average socio-educational backgrounds. The staff characterise their school as having well behaved students, high average achievement, and many parents who are engaged in their children's schooling and aspirational for their futures. In 2014, Sandy Bay's year three and five mean NAPLAN reading scores were in the high-average, and high online data quarters respectively; and these scores were above, and well above the means for similar schools (ACARA, n.d.g).

In 2014, Sandy Bay, like other Victorian Government primary schools, received some funding to implement an early literacy intervention (DEECD/DET, personal communication, 2014). As a Government school, Sandy Bay has a certain degree of autonomy over which interventions it chooses to offer, and can also use some of its broader school funding—within boundaries—to support programs for older students. At the time of data collection for this study, Sandy Bay offered its own non-program-specific intervention—Literacy Support—for students with literacy difficulties in years one to six.

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4.3.2.1 Approaches to literacy instruction and intervention at Sandy Bay School

Sandy Bay had run a small group withdrawal intervention for students with literacy difficulties in the past. This program was based on the principles of Reading Recovery, and students with literacy difficulties participated in it for between two and four half hourly sessions each week. Rowena—the school principal—explained that "what we found, was while you put the manpower in you get the results, the minute you take the manpower away the results go back to where they were." She clarified that this previous intervention did not enable students to sustain their literacy improvement over time, and noted that participating students faced challenges when going back to their classrooms after being withdrawn to attend their intervention.

In 2013 Sandy Bay changed its approach to literacy instruction by ability grouping students to create homogeneous literacy classes. In 2014 this approach was extended by ability grouping classes for every two year levels (excluding preparatory) in both mathematics and literacy. These groupings gave three smaller intervention classes for the lowest achievers in each of these core subjects for each paired year level. The school employed a designated teacher to take the lowest literacy class—Literacy Support—at each of these three levels in terms one to three of 2014.

Since the move to streamed instruction in 2013, the majority of Sandy Bay students' formal literacy instruction occurs in their streamed Literacy Block time and so, for the students in the Literacy Support classes, this setting is also their main instructional context for literacy. The participants explained that all students also engaged in wider literacies across the school day, including oral activities such as presenting on the school radio station, and practical activities during investigative learning time.

When assessing literacy achievement, Sandy Bay teachers use the PM Benchmark running record kit (Smith, Nelley, & Croft, 2009) with students across the school. They also use classroom observations and report on students' progress in relation to the Australian, Victorian Essential Learning Standards - AUSVELS (now the Victorian Curriculum). There did not appear to be a common formal measure of students' independent reading comprehension across the older grades. Some teachers referred to the Lexile (Scholastic, n.d.a) system and one year group used the online On Demand Testing—Reading Comprehension Test (Victorian Curriculum & Assessment Authority, n.d.).

4.3.2.2 Beliefs and understandings about literacy difficulties and interventions

Literacy difficulties are understood by Sandy Bay staff to have a number of possible causes, such as: a lack of student engagement, motivation, and concentration; a lack of

parental support for school reading practices; and inadequate funds for preventative programs in early childhood. Rowena also proposed that at times, students' literacy difficulties were compounded by instruction that was not relevant or interesting to them. She explained that,

> When you get to know a number of our children in that lower literacy group, they have incredible passions for <u>something.</u> And when they have that passion, it's amazing what level they can read at! They know, they can write, they can recite, they can do all sorts of things about that thing. If we can bring more of that into the classroom so they can excel in their area of expertise, then that confidence rubs off and moves on (Rowena).

Sandy Bay staff believed that quality interventions should include targeted and adaptable teaching that focused on students' areas of difficulty, and should be delivered through a structured program that links the modes of literacy. They explained that effective literacy intervention programs were underpinned by teachers' pedagogical knowledge and their ability to assess and to interpret data. Melissa—a classroom teacher—noted that detailed data collection provided the basis for the content of effective interventions:

> A really good analysis on where each child is at, where they need to go.. Making sure that developmentally you're starting at the first thing they've missed, the first misconception and the working your way through rather than jump into something that's a bit beyond them (Melissa).

Students who continue to experience severe literacy difficulties at Sandy Bay School are referred on for additional assessments through the DEECD (now DET) regional office. Some parents also seek outside assessments and tutoring. When teachers discussed future needs for the students in literacy interventions, many believed it was important for their future teachers to be aware of their previous difficulties and intervention participation. Ideal transitions from an intervention were described as being gradual rather than abrupt, and included communication between the intervention and classroom teachers, though finding the time to do this was identified as a challenge.

Parents felt that literacy intervention provision was very important, and were very positive about the learning opportunities their children had received through participating in Literacy Support in 2014. They maintained it was vital that such programs were funded in the future, even if their own child no longer needed support. Each of the three parents interviewed had provided additional home tutoring for their children, noting that not all

parents could afford to do so. These parents identified communication about their children's literacy difficulties as being of particular importance to them, explaining that it was the school's responsibility to inform them in an honest and open manner about their children's difficulties and learning needs.

4.3.2.2.1 Beliefs and understandings about streamed classes

Streamed literacy classes at Sandy Bay School are viewed as a means to enhance the literacy learning of all students through enabling targeted instruction at the level of each class. The streamed approach was implemented partly to cater for students who were achieving below the expected level in literacy—which at Sandy Bay School includes students who are achieving at a level six months or less below the expected standard for their year group, and partly to cater for the high number of students who achieve well above average in literacy by providing these students with extension opportunities. Staff, parents, and students at Sandy Bay were generally positive about the streaming approach, with the adults agreeing that homogeneous classes enabled more targeted teaching, and that the students were making pleasing progress in literacy under this approach. Whilst acknowledging the potential for criticism to be directed at Sandy Bay's ability streamed classes system, Rowena presented it as a pragmatic solution to the challenging task of catering for diverse needs within a heterogeneous class:

> But there is an element of research saying you don't do this with children, you don't separate them out. I don't know that our teachers have enough skill not to, because when we had them in the class they were making no progress. Because you've got to be really skilled to be able to manage all your different levels of difficulty (Rowena).

The staff at Sandy Bay School were relatively critical of the practice of withdrawing individual students or small groups from heterogeneous classrooms for intervention, believing that their school's system of all students moving to their respective literacy classes at the same time is more egalitarian. Staff contended that it was more supportive of the Literacy Support students' self-esteem to be in a homogeneous class than to leave their regular classroom for intervention, identifying that an additional advantage is that students do not have to catch up on what they have missed in the classroom whilst out at a withdrawal intervention:

> I believe that works better for those children cause they're at an age where I think they feel socially.. 'I'm not right'. Yes I think it does more damage taking them out, myself (Linda, classroom teacher)

The children didn't really realise they were being pulled out, because everyone was moving around, everyone had a literacy book and a pencil and they took that with them, So it wasn't like 'you're getting withdrawn and pulled out', and because they were kept for the whole session and not having to come back. That coming back for those children is <u>really difficult</u>. They can't catch up when they're in there all the time let alone catch up when they've missed half an hour, or they're taken out in the middle and have to catch up. So the being out together for the whole period of time was really beneficial (Rowena).

4.3.2.3 The Literacy Support program at Sandy Bay School

In terms one to three of 2014, Literacy Support was delivered by Karen, a qualified and experienced classroom teacher with a strong background in literacy pedagogies acquired through experience at previous schools and involvement in literacy leadership and intervention networks. She was assisted in each of the three Literacy Support classes by an aide.

The Literacy Support program had an emphasis on diagnosing which literacy sub-skills its participating students struggled with through the use of assessment tools. These areas of difficulty then become the focus of instruction. When setting up the Literacy Support program, Karen assessed students identified by their home-group teachers using a battery of assessments including: letter and sound identification tests; the SPAT – R (Neilson, 2009); a PM Benchmark running record (Smith et al., 2009); spelling assessments; and a writing sample. From the resulting data she identified a group of 12-15 students in each of: years one-two; years three-four; and years five-six, for participation in the three Literacy Support classes.

Karen designed the Literacy Support program to remediate literacy difficulties identified in students' initial assessments. The sessions incorporated oral language, reading, writing, and spelling in a structured literacy program, with the goal of accelerating students' learning to the expected benchmarks for their year groups. Students participated in their Literacy Support classes for 100 minutes a day, four days a week, for three terms in 2014. Participation was flexible, with some students moving in and out of the program based on their progress and achievement. The initial intent was for the Literacy Support to run for the whole year, however because of staffing and funding constraints, the fourth term of the program instead involved Karen providing literacy professional development across the school. In particular, she supported teachers to take over teaching the Literacy Support classes.

4.3.2.3.1   Program content

Karen describes the Literacy Support program:

> I was looking at the kids that I had in front of me and teaching to their needs so I'd identified obviously needs with the reading and the writing which I was able to mix in, as an observation, and I used that to formulate whatever it was that I needed to teach them…
>
> A typical session started off with speaking and listening. So we had a focus student every day, or two, depending on the group. And they had specific questions and things that they knew that they needed to go away and research before they came in. So that was the first part and that went for about ten minutes. And then we did some whole class word work which is spelling as well as, like visual spelling, as well as learning spelling principles.., kind of like a whole approach.. we nut out how words actually work. So we would do that as a whole group, five to ten minutes max.. Then the kids would do a whole class reading activity, followed by an independent or a small group reading activity, and then we would come back down to the floor, we'd have a little bit of a reflect, like a mini reflection.., we'd get those focus students to tune back in again and then we'd go again with writing. So whole class writing and then shared or independent writing back at their tables and then coming back and doing a whole reflection on the lesson (Karen).

The learning activities described by Karen and other staff at Sandy Bay included: linking the modes of literacy; flexible groupings within the Literacy Support classes focusing on both ability and strategy instruction; a mixture of whole class and small group teaching; opportunities for independent work; explicit instruction in specific skills; and instruction at the point of need. Students were given opportunities to discuss and reflect on their learning, and each day one student gave an oral presentation, shared their work, and was the spokesperson for the class in questioning the teacher and explaining their learning. The teachers noted that the program followed the same structure each day, enabling the students to feel safe in their learning.

A feature of the Literacy Support program was an increased emphasis within the school on the use of assessment data, with clear guidelines for students' graduation from Literacy Support to the next streamed class. Success in the program was defined as students reaching the appropriate PM Benchmark (Smith et al., 2009) book level for their school year level, and demonstrating commensurate literacy sub-skills.

Participants noted that all Literacy Support students' achievement data improved markedly across 2014. In addition, they observed positive qualitative outcomes, including changes in literacy skills and behaviours, improved confidence, and increased participation and engagement in literacy activities in class. Teachers discussed how the Literacy Support students were developing their ability to read across a range of text types, and understood the purposes of literacy better. Melissa offers an example of the overall teacher positivity about the Literacy Support students' progress:

> I've seen how far those kids have come and they're actually above now some of the kids that have stayed in classes so their improvement's been amazing and their confidence is amazing too. They'll have a go at spelling some really tricky words just using rules that they've learned throughout the year and they're not afraid to have a go which is fantastic (Melissa, interview one).

Positive intervention teacher relationships were a strong feature and outcome of Karen's Literacy Support program. Parents, students, teachers, and the principal all commented on Karen's effective feedback, feedforward, and communication with students, parents and teachers. An additional outcome of Karen's expertise was improved literacy pedagogy and assessment across the school. Teachers reported improved understandings of how to raise students' literacy achievement, and better use of assessment tools, through Karen's professional development.

4.3.2.3.3   Challenges in delivering and sustaining Literacy Support

Identified challenges in running streamed classes included: how best to cater to the needs of students with severe and complex literacy difficulties; students in Literacy Support not having more capable peers to model learning for them; and difficulties for teachers in knowing their students well and in planning for learning across the curriculum when teaching across three student groups. Rowena also identified student transience as an issue that impacted on students' literacy learning. She suggested that better state and national assessment tools were needed in order to disseminate information about transient students, and that these would enable Sandy Bay to respond to new students' needs more quickly.

A significant challenge identified by the principal, teachers, and parents was the short timeframe of Karen's Literacy Support program. After Karen's year at Sandy Bay School, classroom teachers were required to step into the role of taking the lowest literacy streamed classes. Multiple participants observed that having the specialist Literacy Support teacher

for one year was not sufficient time, and that if such a program was going to run, it needed continuity.

There were also more general school and wider concerns. Rowena explained that it could be challenging keeping staff across the school up-skilled in literacy pedagogy and working together, pointing out that professional development was difficult to access in their regional area. Two staff members were critical of the broad nature of AUSVELS (now the Victorian Curriculum): Rowena stated that more directive approaches like the EYLP had provided teachers with a clear structure of what, when and how to teach, enabling consistent implementation across the school; whilst a teacher suggested that the breadth of curriculum areas made it difficult to consolidate students' learning in literacy and numeracy.

Finally, a major concern expressed across the school was the lack of autonomy over how to use the funding the school receives for teacher salaries. The school had hoped to continue to employ Karen, keeping her as the dedicated Literacy Support teacher instead of employing a Languages Other Than English teacher. However, DEECD (now DET) policies meant the school was not permitted to use its staffing allocation for this purpose. Rowena noted that funding cuts such as the abolition of the Educational Maintenance Allowance (additional funding for schools based on the number of students from low socio-educational status backgrounds) placed additional pressure on the school's funds, making it more difficult to provide additional programs.

This section has outlined Sandy Bay School's approach to literacy intervention. This medium-to-large Government primary school focuses on improving student achievement through streamed classes in literacy and numeracy. Sandy Bay offered Literacy Support classes with a specialist teacher in 2014, which were highly regarded by participants. Sandy Bay emphasises ongoing teacher development as the key to improving students' learning.

4.4   Chapter summary

In this chapter, literacy intervention provision for Victorian primary aged students has been described at a broad State, and at specific school levels. The results identified the high prevalence of literacy intervention use, and the diversity of programs offered, using data from an online data scan of 150 schools. This data set showed that literacy interventions were offered by schools from each sector, and of all sizes, and levels of socio-educational advantage, and mean reading achievement. Pearson's chi-square tests showed strong associations between school sector and the likelihood of offering interventions, and

moderate associations between school size and offering interventions. No other relationships were identified.

Nine school principals provided descriptive information about their schools and the specific literacy interventions they offered, explaining that the learning content of the program, students' literacy development, logistical considerations, teacher expertise, and relationships were factors influencing intervention provision in their schools. Narratives of intervention provision in two contrasting case study schools illustrated the ways in which the major types of literacy interventions identified in the online data scan were implemented in different school contexts. Sacred Heart School offered two withdrawal interventions in addition to students' classroom teaching, whilst Sandy Bay School offered streamed literacy classes encompassing students' literacy instruction. Across the two settings, structured learning opportunities focusing on both literacy skill development and the use of these skills were valued. Specialist teacher expertise was considered pivotal in providing effective programs, and relationships between all parties were also considered highly important. The practice of providing targeted support to students with literacy difficulties was universally valued by participants. The following chapter discusses these State and school findings, using the inductive theoretical model discussed in chapter three to identify major factors impacting on Victorian schools' literacy intervention provision, and to map differences between the two case study settings.

5.   Discussion of State and school level data

This chapter discusses the findings from the three data sets reported in chapter four, which described schools' provision of literacy interventions at State and individual school levels in Victorian primary education. It considers literacy intervention provision in relation to school and community beliefs about literacy difficulties and remediation, and to policy and research in these areas.

The chapter begins by discussing key findings from the online data scan in relation to existing literature on literacy intervention provision in Victoria. The subsequent sections are organised around the factors impacting on the provision and implementation of literacy interventions in school settings, as identified through inductive analysis of the questionnaire and case study data, and displayed visually in the situated model in chapter three (Figure 3.8). These factors—outside influences, logistic considerations, expertise, learning, relationships, and individual differences, together with literacy development—are discussed separately. They are then brought together using the situated model which is used to map the ways these factors impacted on each case study school's provision and implementation of literacy interventions. Key differences between these settings are highlighted.

This discussion chapter, and the model it outlines, is grounded in a socio-cognitive understanding of literacy acquisition and literacy difficulties, acknowledging that both intrinsic and extrinsic factors can influence literacy development. This discussion considers literacy specific theory and pedagogy and also looks at wider educational and economic factors influencing literacy intervention provision in order to contextualise schools' literacy interventions systemically.

5.1   Literacy interventions: A common and varied phenomenon

The data from the online scan suggest that literacy interventions to improve primary aged students' print literacy difficulties are common in Victoria. Seventy six percent (114 schools) of a randomised sample of 150 schools reported offering one or more literacy intervention programs on their website and/or in their annual report. Given the possibility of a reporting bias in which schools may prefer to not advertise their interventions on public documents, it is possible that the actual proportion of schools offering literacy intervention programs is higher. These findings contribute up-to-date data to complement the findings of existing studies which established that interventions for students with

learning difficulties, including literacy difficulties, were common in Australia (Louden et al., 2000; Meiers, 2013; Rohl & Milton, 2002).

The online scan results also show that primary education settings in Victoria offered a diverse range of programs to support and improve the literacy of students with literacy difficulties. Some of the programs schools reported using have a substantial research base and were identified as commonly used in earlier studies of learning interventions in Australia. For example, the widespread use of Reading Recovery (Clay, 1985) was discussed in the *Mapping the Territory* study (Louden et al. 2000). Other programs offered by schools in the online scan have a moderate research base and have also been documented in earlier studies—for example, MULTILIT (2007), in Meiers et al.'s (2013) review of early intervention programs. In the online data scan, schools also named many other programs which did not appear in earlier reviews of learning interventions in Australia, including some for which few or no published evaluations could be found.

In this study, the most commonly offered program was Reading Recovery, which 52% of schools in the online data scan, four out of nine schools in the principals' questionnaire, and one of the two case study schools—Sacred Heart—reported offering. As discussed in the literature review, Reading Recovery has the most extensive research base of any literacy intervention, and has strong advocates (e.g. Allington, 2002; Askew et al., 1998; Schwartz et al, 2009) and critics (e.g. Chapman, 2011; Reynolds & Wheldall, 2007) in the literacy intervention research community. The findings from the online data scan suggest that the overall proportion of schools offering Reading Recovery in Victoria has reduced since 2000 when Rohl, Milton and Brady (2000) identified that this intervention was offered by 78% of Victorian schools responding to their survey. This reduction in use is discussed in more detail in the differences between schools section later in this chapter.

In the questionnaire data, the principals of schools that did offer Reading Recovery were positive about many aspects of the program, and variously included comments on the value of its one-to-one delivery, targeted learning, students' literacy gains, expertise of Reading Recovery teachers, and student-teacher relationships. One principal identified disconnects between the learning in Reading Recovery and that occurring in the classroom; whilst another observed close connections between learning in the two settings. The two case study principals had both led schools that offered Reading Recovery as an early literacy intervention, but these participants shared different understandings and experiences of the program. Rowena, the principal of Sandy Bay School, explained that she had worked with Reading Recovery and other models based on this program in the past, and had observed a

wash-out effect of student gains over time. Conversely, Henry (principal, Sacred Heart School) spoke positively about the program, arguing that some students needed this intensive intervention and that it was worth the cost to invest in their learning. Reading Recovery at Sacred Heart School is explored in more depth in the learning section of this chapter, and in Georgia's case study in chapter six.

Non-program specific literacy interventions were offered by 43% of schools in the online data scan, four out of nine schools in the principals' questionnaire, and one of the two case study schools—Sandy Bay. In the online scan and questionnaire data, it is not known whether these schools chose not to name the program they offered, or whether, as in the case of Sandy Bay School, they offered their own literacy intervention program. It is possible that schools may be devising their own literacy interventions in order to cater to their specific contexts, as some schools in the *Mapping the Territory* (Louden et al., 2000) study did, but without additional information on each program, it is difficult to evaluate this finding. Literacy Support—Sandy Bay School's own intervention—is more fully explored in the learning section of this chapter and in David, Finn, and Lochie's case studies in chapter six.

Schools reported offering thirty four other literacy intervention programs in the online data scan and questionnaire, which focused on various aspects of literacy and were grounded in a range of theoretical understandings about literacy difficulties, acquisition, and remediation. For example, MULTILIT (2007) (seven schools), Toe by Toe (Cowling & Cowling, 1993) (four schools), and Corrective Reading (Science Research Associates, n.d.) (two schools), are programs that explicitly teach early reading skills—including letter-sound relationships, decoding skills, and irregular sight words—in a developmental sequence. Corrective Reading also teaches comprehension skills using a direct instruction approach. These programs are underpinned by cognitive, developmental theories of reading acquisition in which students learn the components of reading sequentially, and may develop competency in these skills in isolation rather than only in the context of reading and writing connected texts. Schools' use of these and other cognitively oriented programs may be in response to research findings, for example, on the importance of explicit phonics instruction in early reading development (e.g. Report of the National Reading Panel, 2000; National Inquiry into the Teaching of Literacy, 2005), and on the need for more targeted and explicit instruction for students with literacy difficulties (Ellis, 2005; Pressley & Allington, 2014; Rose, 2009; Snow et al., 1998). Research evidence supporting the efficacy of the cognitive programs cited by schools in the online data scan is

mixed. Developers' research into MULTILIT (Buckingham, Beaman-Wheldall, & Wheldall, 2014; Wheldall, 2012; Wheldall & Beaman, 1999; Wheldall, Beaman, & Langstaff, 2010) demonstrated accelerated reading progress through the use of the program, though Wallace (2012) found that its efficacy dropped when schools did not adhere to developers' recommendations for the content and intensity of sessions. Corrective Reading has been shown to elicit improvements in decoding skills, though not in comprehension (Torgesen et al., 2006), and Toe by Toe, intended for parents to use with their children, does not appear to have a published research base.

In the literature review I identified key pedagogical differences between cognitive and meaning-centred intervention programs. In the online data scan, MULTILIT (2007), Toe by Toe (Cowling & Cowling, 1993), and Corrective Reading (Science Research Associates, n.d.) were identified as programs located in the cognitive paradigm, and Reading Recovery as an intervention positioned in meaning-centred theories. However, a close examination of MULTILIT and Reading Recovery's pedagogies shows that components of these interventions cross the boundaries of their theoretical foundations. For example, Reading Recovery's use of Elkonin boxes and magnetic letter activities (Clay, 2005, 2016) acknowledges the importance of grapho-phonic skill development in literacy acquisition, whilst each MULTILIT (2007) session concludes with students reading from an appropriately levelled book of their choice, enabling them to use their skills in context.

Phonological awareness programs (eight schools) are another example of interventions that align with cognitive, developmental theories of reading acquisition, focusing on phonological and phonemic skills which are widely understood to be a precursor to the ability to map sounds to print (e.g. Chall, 1983; Stanovich 1994; Vellutino & Scanlon, 1982). In addition to the eight schools offering specific phonological awareness programs, some of the other programs listed, such as LEXIA, (Lexia Learning Systems, n.d.) and Early Reading Intervention Knowledge (ERIK) (McCusker, Connell, & Dalheim, 2009) include an explicit phonological component. Whilst the specific phonological awareness programs named in the online scan do not appear to have a published research base, there is a substantial body of research demonstrating the effectiveness of explicit phonological awareness training in remediating students' literacy difficulties (e.g. Brooks, 2007; Gillon & Dodd, 1997).

Some of the other intervention programs named by schools in the online scan appeared to have different emphases. For example, Reading for Life (Tracey, 2004) is designed in part

to promote the enjoyment of reading through the use of volunteer mentors, as well as offering targeted practice in reading skills. The skills focus of Reading for Life orients it with a cognitive perspective, yet the program also encourages the practice of reading for pleasure. It could be argued that this program draws in part from a sociocultural perspective in that it involves community volunteers, offering the potential for students to learn from culturally and linguistically diverse people who offer additional experiences to those of their teachers, one component of the sociocultural New London Group's *Pedagogy of Multiliteracies* (1997). However, in general the withdrawal of students from the classroom for intervention has been criticised by socioculturally oriented researchers who claim that students in such interventions miss valuable classroom learning and instead receive poorer instructional opportunities (e.g. Tancock, 1997; Woods & Henderson, 2002). Reading for Life was offered by one school in the online data scan, two schools in the principals' questionnaire, and one case study school—Sacred Heart. This program's research base consists of an initial study by its developers, Learning Links (Tracey, 2004), and their ongoing data collection through delivering the program. Reading for Life is discussed in more detail in the learning section of this chapter and in Oliver's and Brydie's case studies in chapter six.

A few programs named in the online data scan were grounded in less common and more contentious understandings of literacy difficulties. For example, Arrowsmith ("Arrowsmith program: About us", n.d.) was offered by one school and FastforWord ("Learn Fast", n.d.) was offered by two schools. These interventions focus on brain change and are premised on the understanding that brain use can be altered through exercises and computer programs. Functional magnetic resonance imaging research on the brains of people with and without dyslexia does imply causal links between brain development and literacy difficulties (e.g. Shaywitz, Lyon, & Shaywitz, 2006). However, the claims of the developers of Arrowsmith, FastforWord and other brain-based programs have been criticised for relying on incorrect interpretations of these causal links, and for claiming that brain exercises, rather than print-based instruction, enable literacy learning (Alferink & Farmer-Dougan, 2010; Castles, 2013).

Little (and in some cases no) information or research could be found for other programs cited by schools in the online data scan. Many originated in other countries, and some, such as the Yachad Accelerated Learning Project (Doecke et al., 2010), were developed for specific overseas populations. Yet a lack of published research does not necessarily signal that a program is ineffective or that it is inappropriate for school use. I suggest that locally

developed interventions tailored for specific school communities—such as some of the schools' non-program specific interventions—may be effective in raising students' achievement, but that these community or school-based developers may not have the professional or financial motivation to publish their data. On the other hand, commercial products may have the funds and impetus to ensure a research base to prove their efficacy. Furthermore, research evidence on programs' efficacy may also be produced in controlled studies which have little in common with the busy and sometimes unpredictable contexts of schools and classrooms. When working with such research, principals and teachers face the challenge of translating findings to their own community, school, and classroom contexts (Freebody, 2007; McNaughton, 2011).

5.2 Differences between kinds of schools: the role of outside influences

This section explores differences between the online data scan schools' demographic and achievement data, and their report of offering one or more literacy interventions. Of the five variables examined, school sector type showed the strongest differences in both report of offering literacy interventions, and in the types of interventions offered. Catholic schools, operating under policies from the CEOs were the most likely to offer interventions, Government schools, free to develop literacy policies to suit the needs of their schools, were also likely to do so, and Independent schools, largely de-regulated, the least likely to do so. It appears that these differences are to a large extent explained by the different policies and expectations each school sector operates under.

Government primary schools in Victoria had previously delivered literacy programs based on the EYLP (Hill & Crévola, 1999), which directed constructivist and meaning-centred classroom pedagogies and recommended Reading Recovery as the second wave intervention for students with early literacy difficulties. Subsequent to the EYLP, and alongside the introduction of the Australian Curriculum (ACARA, 2012) which defines content to be taught rather than pedagogical approaches, the DEECD/DET devolved decisions about literacy pedagogy and interventions to schools. Whilst not supportive of Reading Recovery, Rowena, the principal of Sandy Bay School, was critical about the dearth of advice resulting from the devolution of DEECD/DET policies in the past 10 years. She noted that the EYLP had provided clear pedagogical guidelines and a sound foundation for teachers to work from, and observed that insufficient state and national guidelines for assessment had resulted in a lack of consistency in assessment across and within states, making it difficult to cater to new students. Alongside these policy shifts, an emphasis on students learning with their peers in the classroom is evident in recent

curriculum directives on catering to diverse student needs (e.g. ACARA, n.d.c), implying that withdrawing students for support is now a less favoured practice.

The online data scan found that fewer Victorian Government schools offered Reading Recovery in 2014 than in 2000, likely because of the policy changes discussed above, and possibly also in response to research critiquing the effectiveness of this program (e.g. Center et al., 1995; Chapman & Tunmer, 2011; Reynolds & Wheldall, 2007). It also identified that of the three intervention categories analysed, Government schools were most likely to offer non-program specific literacy interventions. Forty seven percent of schools in the online data scan and four of nine schools in the questionnaire reported doing so. Sandy Bay School, in offering its own literacy intervention, appears then to be quite typical of Government schools.

Literacy pedagogy, the provision of intervention, and the types of interventions offered, are more directed in the Catholic schools system, which in Victoria is managed through four Catholic Education Offices (CEOs). At the time of data collection for this thesis, there was an expectation that Catholic schools would offer Reading Recovery as a second wave intervention, as laid out in the Children's Literacy Success Strategy (CLaSS) (Hill & Crévola, 1999, 2005) and more recent Catholic Education Office policies (e.g. CEOM, n.d.a). I note that whilst CLaSS is not a current project, many schools in the online data scan specifically referred to working under its principles, as did staff at Sacred Heart School. These CEO policy directives are reflected in the high proportion (94%) of Catholic schools that reported offering Reading Recovery in 2014 in the online data scan.

However, in 2017, CEOM ceased promoting Reading Recovery as the early literacy intervention for its primary schools (anonymous principal, personal correspondence), removing references to the program from its Literacy Projects webpage (CEOM, n.d.a). This decision may have been influenced by the widely reported findings of a large-scale quasi-experimental New South Wales study (Bradford & Wan, 2015), which found that by year three, ex-Reading Recovery students achieved poorly on NAPLAN reading tests in comparison with students who had not participated in this intervention. This gap was observed despite the two groups being matched on demographic variables and on kindergarten literacy achievement data. The conclusions of this study resulted in New South Wales ceasing to nominate Reading Recovery as its recommended early intervention. CEOM's commensurate shift suggests that the landscape of literacy intervention provision in Victorian primary education continues to alter.

Notwithstanding, the online data from this thesis demonstrates that many Catholic schools also offered non-program specific literacy interventions (47%), and one or more other programs (56%), suggesting that providing literacy interventions is a common practice in Catholic schools extending beyond mandated or recommended programs.

The online data scan showed that Independent schools were the least likely to report offering literacy interventions on their school websites and/or in their school annual reports, with just under half of the Independent schools in the online data scan doing so. Several of the Independent schools in the sample were composite settings encompassing early childhood, primary and secondary education. Their school websites and annual reports contained information covering students of all age ranges, and it is possible that information on specialist programs for a limited number of primary-aged students was not a priority for inclusion.

Roll size, community socio-educational status, and mean reading achievement were also hypothesised as other potential variables influencing schools' likelihood of offering literacy intervention programs. The online data scan analysis showed that school roll size was the only variable within which there were statistically significant differences, with small schools the least likely to offer intervention programs. Having said this, 59% of the schools in the low roll quarter of the online scan (12-158 students) reported offering literacy interventions, and in addition, four of nine questionnaire schools and one of the two case study schools also had low rolls and offered one or more programs for students with literacy difficulties. In the questionnaire data, the principal of one extremely small school clarified that their school did not offer any literacy intervention programs because they did not have any students with literacy difficulties on the school roll in 2014. It is also possible that in other very small schools, the low student-teacher ratio is considered sufficient to cater for any students with literacy difficulties.

Differences in schools' community socio-economic status—as measured through their ICSEA numbers, and average reading achievement—as measured through their year three and five mean NAPLAN reading scores, were not statistically significant predictors of whether or not schools reported offering literacy interventions. This suggests there is no clear or straightforward relationship between whether a school offers literacy intervention/s, and either its average scores on reading achievement tests or its community's socio-educational status. These findings constitutes new knowledge in the field, as research exploring these relationships was not found in the literature. These findings were unexpected, as I had hypothesised a number of possible relationships, for

example, that schools with low NAPLAN reading scores would be more likely to offer reading interventions in order to improve their data, or that schools with high scores achieved these through providing interventions to raise the achievement of their lower readers. In addition, I had wondered whether schools serving lower socio-educational status communities might use their additional funding to provide intervention programs, or schools serving more affluent populations might also be in a financial position to provide additional programs. It is logical, given the statistical correlation between ICSEA and NAPLAN (Miller & Voon, 2012) that neither of these variables were found to relate to schools' report of offering literacy interventions. However, there is also a strong correlation between ICSEA and school sector, with non-government schools (Catholic and Independent) typically having higher ICSEA numbers than Government schools (Bonner & Shepherd, 2016), yet, in this study, only school sector was found to have a strong relationship with whether schools offered these programs. I suggest that more research is needed to explore these relationships and discuss this in more depth in the recommendations in chapter eight.

The less directive DEECD/DET and more directive CEOM policy models in turn impacted on the degree to which schools were funded to offer literacy interventions, as illustrated by the differing experiences reported by the two case study schools. Rowena voiced her concern that there was insufficient targeted funding to deliver interventions, noting that despite the devolved Government schools' structure, Sandy Bay was not free to continue to fund the employment of their Literacy Support teacher through its staffing allocation. She also noted that changes to the Educational Maintenance Allowance meant there was less money to fund programs, including literacy interventions, to support the learning of students from low socio-educational status backgrounds. An earlier study (Rohl & Milton, 2002) identified that 28% of Australian schools used funding from an index of disadvantage to finance intervention programs, suggesting that changes to the distribution of such funding will have affected a number of schools. In contrast, Sacred Heart was funded by CEOM to deliver Reading Recovery and to employ a teacher to coordinate literacy on a 0.5 (half-time) fraction. CEOM also provided staff to advise and support schools when students did not make expected progress in Reading Recovery. Sacred Heart's other intervention, Reading for Life, was not funded through the CEOM model, but was instead supported by charitable trusts and businesses in the local area. Whilst Henry (principal, Sacred Heart) noted that this community fundraising could be challenging, he spoke much less frequently about cost concerns and their impact on literacy intervention

provision than Rowena. Schools' challenges in funding interventions have been documented in earlier studies (e.g. Louden et al., 2000; Luke, 2003), but differences arising because of school sector policies and funding models were not identified in the research literature.

In this study, policy and funding had a relatively significant role in case study schools' decision to offer literacy interventions, the programs offered, and the ease with which the cost was met. The incidence of comments related to policy and funding concerns differed markedly between the two case study schools, and these were raised approximately four times more frequently by Rowena than by Henry. Luke et al. (2003) found that "directive policy, program and curriculum development initiatives—tended to generate better, more dedicated and consolidated interventions via a range of systematic and intervening factors than in jurisdictions without such policy emphases" (p.5), and this finding appears to be reflected in the differing experiences of schools operating under more and less directive policies in this study. At times, research findings also appeared to influence policies and funding, particularly those directing the use of Reading Recovery as an early intervention.

5.3 Logistical considerations

The outside influences of policy and funding in turn impacted on the practical, day to day business of providing and implementing literacy interventions within schools. Such issues were of significance to the questionnaire and case study participants, and discussions of these occupied approximately 37% of the qualitative questionnaire responses and 12% of the interview transcripts. Participants discussed factors such as the number of students able to receive interventions, determining which students will participate, finding space within the school and the timetable for programs to run, and accessing personnel and training to facilitate the delivery of programs. These logistical factors could be represented positively, for example, smaller group sizes were seen as an advantage by principals offering non-program specific literacy interventions; and negatively, for example, two questionnaire schools and both case study schools identified that timetabling interventions was a challenge.

5.3.1 Who receives intervention?

Whilst intervention programs were commonly offered, the questionnaire data implied, and the school case study data stated, that this did not mean all students with literacy difficulties on the school roll were able to receive intervention in any one year. Individual support, small group sizes, and homogenous groupings were considered positive intervention attributes by many of the participants. However, the nature of individual and

small group programs meant that places tended to be limited. For example, of the four questionnaire schools offering Reading Recovery, three noted that the small numbers of students who could receive support was a disadvantage. In the case study schools, parents in particular felt that more intervention places needed to be available.

In this study, the literacy learning of younger students appeared to be a specific focus, as second wave interventions—designed specifically to accelerate students' literacy in the first few years of school—were common in the online data scan. These included the Early Years Koorie Literacy Intervention (DET, n.d.a), Reading Recovery (Clay, 2005, 2016), PRELIT (MultiLit, 2012), and MINILIT (MultiLit, 2011). The principals and teachers at Sandy Bay and Sacred Heart Schools emphasised the importance of early intervention, a practice strongly endorsed in the literature (Brooks, 2007; Francis et al., 1996). Yet whilst early intervention is important, some students do continue to struggle with literacy learning after participating in a second wave intervention, and providing only early intervention leaves these older students at risk. Louden et al. (2000) identified that Australian schools emphasised early identification and intervention, noting that schools received less research information and funding for students with pervasive literacy needs who required longer term or third wave support. Hill at al. (2002) argued that support for third wave readers was needed to provide a 'safety net' in addition to existing early interventions. Whilst early interventions appeared to be dominant both in this and in earlier studies, the online data scan showed that schools also offered programs that appeared to be for older students or those with ongoing literacy needs. Both case study schools provided both early interventions and programs for older students.

A classic definition for identifying students with literacy difficulties is that they are reading and/or writing at a level at least one year below the expected level for their age (Louden et al., 2000). Interestingly, in this study, staff from both case study schools reported offering literacy interventions both remedially to students with such literacy difficulties, and preventatively, to students who were not so far below the expected level, but who exhibit other challenges, for example, with confidence or motivation to read. In addition, a higher reading level expectation for students at the end of year one in CEOM schools meant that students might be considered for early intervention in Catholic, but not in Government schools.

At Sacred Heart School there were clear criteria for identifying students for participation in a literacy intervention: to be selected for Reading Recovery students had to be in the lowest quintile for reading achievement in grade one; and to be selected for Reading for

Life students had to be at risk of experiencing literacy difficulties, and attend school regularly. In addition to these Reading for Life conditions, it may reasonably be expected that students who exhibited severe behavioural or oppositional attributes would not participate in a volunteer-delivered program. Whilst these Reading for Life criteria have the potential to exclude students, in 2014 there were sufficient places for many students to participate, including those reading not far below the expected level for their age. On the other hand, at Sandy Bay School, the homogenous classes model meant that all students participated in a literacy class targeted at their level of achievement. There were no exclusionary criteria for participating in the Literacy Support classes, other than measured literacy achievement.

5.3.2   Interventions as part of schools' learning contexts

School-based interventions may be located in the classroom setting, with differentiated instruction to improve students' literacy (pull-in interventions), or outside the classroom setting (pull-out or withdrawal interventions). Programs designed for withdrawal instruction were reported by many schools in the online data scan and appeared to be common. Although participants at both case study schools maintained that intervention was needed for students with literacy difficulties, staff at these schools held different views on the appropriate location of literacy interventions. Withdrawal programs were believed to be very effective at Sacred Heart School, but the staff at Sandy Bay School contended that withdrawing students for intervention was ineffective longitudinally and could cause social and emotional discomfit in students. Sandy Bay discontinued such programs due to a wash-out effect of the achievement gained, yet the extent to which Sandy Bay's streamed approach is not essentially a withdrawal intervention is questionable. Their homogenous intervention classes are not a pull-in approach, and, whilst Sandy Bay's students were not singled out for withdrawal, and did not miss other classroom activities whilst at Literacy Support; they were grouped by ability and so did not have more able students to learn from and with.

There appeared to be differences in the relative effort needed by Sandy Bay and Sacred Heart's classroom teachers when delivering their respective approaches. At Sandy Bay School, the homogenous classes model required buy-in from all teaching staff, who needed to work to a rigid timetable and teach literacy, mathematics, and home-group classes, rather than one class of students. The withdrawal approach at Sacred Heart School meant that another educator or volunteer was contributing to the students' literacy learning, and

essentially supporting the teacher by providing extra instruction for students with the highest literacy needs.

As with the two case study schools, Australian (e.g. Louden et al. 2000) and international (e.g. Woodward & Talbert-Johnson, 2009) studies found similarly conflicting opinions on the appropriate location of interventions. Some researchers have found that withdrawing students for intervention provides them with decontextualized instruction which they then struggle to apply to classroom or other learning (Rossow, 2004), or poorer learning opportunities to those who remain in the classroom (Lankshear & Knobel, 1998). Such findings imply that quality interventions with careful links to wider learning are needed if students are to be withdrawn for additional instruction. Gelzheiser, Meyers and Pruzek (1992) compared the efficacy of the pull out and pull interventions through a matched experimental design, finding that there was no significant difference in students' reading achievement in these groups. They concluded that the "specific type and quality of instruction provided need to be considered when evaluating the efficacy of a general approach for the delivery of reading instruction (e.g. pull-in or pull-out) rather than restricting considerations to the location of instruction" (p. 146).

In this study, the extent to which each case study school's interventions were embedded in their broader school and sector context also differed. Multiple studies have found that effective, sustainable interventions need to be part of a whole school system, rather than an add-on that is isolated from classroom learning (e.g. Hill & Crévola, 1999, 2005; Jesson & Limbrick, 2014; Luke, 2003; Luke et al., 2003; Meiers et al., 2013). At Sacred Heart School, classroom teachers were very clear that they held primary responsibility for the literacy learning of students in Reading Recovery and Reading for Life, which they shared with intervention and other staff and volunteers, and with parents. This collective responsibility is explicated in CLaSS (Hill & Crévola, 1999, 2005) and subsequent policies (CEOM, n.d.a). The interventions at Sacred Heart appeared to be part of a developed system, supported at multiple levels both financially and professionally, and underpinned by the directive nature of the CEOM policies. At Sandy Bay School, the method of streaming classes for literacy was newer, having been operating for less than two years at the start of this study. Ideas about who was responsible for students' literacy learning in the streamed system were mixed, with some staff believing that all teachers who worked with these students were responsible, and others believing students' Literacy Support teacher held primary responsibility. Having a dedicated Literacy Support teacher was highly valued, but as this staffing could not be sustained, the program appeared,

particularly from the parents' perspectives, to be a one off rather than an integrated component of the school learning program. It appears that a key variable supporting the contextualisation of interventions within the case study schools' programs was access to school and outside expertise to enable sustained delivery. Here the structural influences of CEOM policy supported the practical implementation of literacy interventions at the school level for Sacred Heart School, whereas the structural influences of DEECD/DET funding policies appeared to work against Sandy Bay's goals for a longitudinally sustained Literacy Support program.

5.3.3   Length and intensity of interventions

The programs at the case study schools differed in their length, intensity, and group size — all factors shown to impact on program efficacy (Snow et al., 1998). Some reports maintain that daily intervention is optimal (e.g. Snow et al.; Gersten et al., 2009), with Snow suggesting that intervention should occur for "the duration of the school year or a good part of the school year" (p.272). In this study, Literacy Support—running for 100 minutes a day, four days a week, for three terms—was the longest and most intensive program, though it had the largest group size of 12-15 students. Reading Recovery— running for 30 minutes daily for up to 20 weeks—was the next most intensive program; and Reading for Life—running for 45 minutes, once a week, for 15 weeks—the least intensive. Both Reading Recovery and Reading for Life were one-to-one programs, meaning that the students had the sole focus of the teacher or tutor for their entire session. The ways in which these interventions influenced individual students' literacy development is explored in depth in the individual case studies in chapters six and seven.

Both case study schools were clear that incorporating interventions into their programs caused challenges with organising and working to timetables. At Sandy Bay School, the whole school worked to the same tight timetable from Monday to Thursday in order to allow students to move to their streamed maths and literacy classes. At Sacred Heart School, some classes had up to seven students coming and going from the classroom to attend Reading for Life sessions. Participants identified student absence as negatively impacting on the efficacy of interventions.

5.4   Understandings about literacy difficulties

At each case study school, participants discussed a range of possible factors that could cause or contribute to literacy difficulties, revealing understandings which included both intrinsic—within child factors, and extrinsic—within environment factors.

Ruddell and Unrau (2004) suggest that intrinsic or within child factors impacting on reading acquisition include both: cognitive conditions, such as word level and comprehension knowledge; and affective conditions, such as motivation and attitudes towards reading. In this study, intrinsic factors suggested by participants included: cognitive differences and difficulties, such as dyslexia and processing difficulties; and literacy skill difficulties, such as challenges with phonological awareness, phonics, and comprehension skills. Such cognitive explanations of literacy difficulties have been validated by studies identifying phonological and phonic difficulties as loci of broader literacy—including comprehension—difficulties (e.g. Cain & Oakhill, 2006; Juel, 1998; Stanovich & Siegel, 1994, Vellutino & Scanlon, 1982). In addition, the participants in this study discussed medical issues such as ill health, hearing loss or vision problems that may contribute to literacy and learning difficulties, and also named affective factors, including negative attitudes and behaviours that they believed contributed to students' literacy difficulties. Some of these affective factors were specifically related to literacy, for example, students not liking or avoiding reading tasks, whilst others were broader, such as students being easily distracted or poorly behaved.

Extrinsic suggestions from both case study settings included differences between the kinds of literacy engagement valued at home and at school. For example, staff members in each school proposed that a lack of parental support for school learning and a lack of willingness to read with their children at home were contributors to students' literacy difficulties. These beliefs link to the concept of home deficit theory, and the correlations between students' home capital and academic achievement reported by Mullis et al. (2012), as discussed and critiqued in the literature review.

Many researchers have described the impact school pedagogy and content has on students' engagement in literacy and learning, arguing that students are likely to learn best through culturally responsive instruction that builds on their funds of knowledge (e.g. Au, 2011; Luke, 2008; McNaughton, 2011; Moll et al., 1992; Rennie, 2010). These understandings were voiced by staff in both case study settings, who discussed ideas relating to the importance of providing instruction relevant to students' lives, noting that at times they believed some students were less engaged with literacy tasks because they did not understand the purpose of literacy, the educational content was not relevant to their lives or personal interests, or there were insufficient texts to entice reluctant readers. The ways in which the six case study students' home and community funds of knowledge connected

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with the literacy practices and pedagogies of their school settings are reported and discussed in chapters six and seven.

An alternate extrinsic suggestion not raised by teachers in this study was that of a teacher or pedagogical deficit, in which students have literacy difficulties because they have not received adequate or appropriate instruction. The situated model described later in this chapter includes teacher expertise as one factor, and students' classroom instruction as an element within the learning factor, in order for these possible influences to be considered.

Some of the factors participants believed contributed to students' literacy difficulties cut across several categories. For example, social and emotional difficulties, such as disengagement with or a poor attitude to literacy, or generally challenging behaviour, could stem from cognitive challenges, or a mismatch between home and school literacy practices, or both. Finally, several participants discussed or alluded to broader and overarching social difficulties such as poverty and disrupted home lives, which they believed contributed to students' literacy difficulties, and made these difficulties more challenging to remediate.

In both case study settings participants' beliefs about the possible loci of literacy difficulties supported socio-cognitive explanations for literacy difficulties, and linked to models of literacy acquisition that acknowledge both cognitive and sociocultural paradigms (Freebody & Luke, 1990; NHMRC, 1990; Purcell Gates et al., 2004; Ruddell & Unrau, 2004).

5.5 Expertise

Teacher expertise was identified as an important factor in delivering effective literacy and literacy intervention programs in both schools, particularly by principals and teachers. Valued expertise included: knowledge of literacy pedagogies; understanding of assessment tools and data; the ability to develop and deliver targeted programs; previous experience in working with students with literacy difficulties; and specialised training. The schools' networks of experts also included outside professionals such as psychologists, optometrists, and visiting experts from each sector's regional office. In addition, some parents privately funded outside experts to assess and tutor their children.

Expertise in literacy pedagogies and intervention was nearly three times more frequently mentioned by participants at Sandy Bay School than at Sacred Heart School. Teacher expertise appeared to particularly important to Sandy Bay's staff, many of whom noted that they had improved their literacy pedagogy and assessment knowledge during 2014

through Karen's professional development. All teachers and parents in this setting also contended that they needed an ongoing literacy specialist in order to consolidate knowledge, understanding, and pedagogical practices. Sandy Bay staff further explained that: there were few opportunities for upskilling and accessing additional support beyond the school level; quality professional development was challenging to access in the local area; and staffing changes made it challenging to sustain pedagogical approaches across the school. A few students at Sandy Bay had been assessed by visiting psychologists or other experts from the regional DEECD/DET office, however this outside support was limited.

At Sacred Heart School, Maria (Reading Recovery teacher) was similarly described as an expert and appreciated by other staff members. However, to these participants it appeared to be taken for granted that they would have a Reading Recovery teacher and literacy coordinator available to support student and staff learning. Ongoing professional development and guidance for Reading Recovery teachers was provided by CEOM, and their student support services team provided experts to assess and provide support for students with complex literacy difficulties. Reading for Life was not a CEOM program, but its implementation, including the assessment of students, the provision of materials, and the training of volunteers, was delivered by a team of psychologists. Expertise within and beyond Sacred Heart School supported the delivery of its intervention programs, whereas, whilst expertise was considered particularly important at Sandy Bay School, a dedicated literacy expert could not be retained, and there were few experts to advise on literacy difficulties and interventions beyond the school level.

5.6   Learning
5.6.1   Rationale and purpose of interventions
Participants' perceptions of the literacy interventions on offer at their schools were gathered in order to gain an understanding of how and why particular programs were used. Research into literacy interventions typically assumes that the rationale for schools delivering interventions is to increase the literacy of students with identified difficulties in this area. A significant goal of the Literacy Support program at Sandy Bay, and of Reading Recovery at Sacred Heart, was to bring students' literacy up to year level expectation, enabling them to participate confidently in their classroom contexts. However, literacy intervention programs also were reported to have broader purposes in addition to accelerating achievement, such as eliciting attitudinal changes in students, and meeting the needs of the wider school population and community.

At both schools, interventions were reported to benefit parties in addition to the participating students. An interesting comment made by two questionnaire participants, and by some staff at Sandy Bay School, was that offering a dedicated literacy intervention program not only supported students with literacy difficulties, but also enabled students who were not participating in the program to receive more attention from their teacher and to receive targeted literacy instruction at their level. The principal of Sandy Bay also noted that the streamed Literacy Block and Literacy Support classes model elicited high levels of parental satisfaction. At Sacred Heart, literacy interventions were believed to provide both individual and community benefits, for example: through an increase in literacy skills and confidence for the students; personal development and satisfaction for the volunteer; and by eventually providing the wider community and workforce with more highly skilled school leavers.

There was a clear understanding across both settings that intervention programs did not necessarily 'fix' students' literacy difficulties. Most teachers made comments about their role in monitoring and supporting students who had received intervention support in the past, which suggested that they were mindful of these students' ongoing literacy learning needs. In addition, some parents and teachers shared their understanding that particular children may not meet the expected achievement standards for their year level and may need support in the future. Participants explained that, for these students, continuing to make progress was a more important goal than 'catching up' to grade level expectations.

5.6.2 Pedagogical content

The ideal pedagogical content of a literacy intervention has been addressed in a range of meta-analyses and research syntheses. One recommendation is that students with reading difficulties do not need different instruction to 'normally developing' readers, but more intensive and explicit high quality instruction, with more opportunities to practise (e.g. Allington & McGill-Franzen, 2000; Snow et al., 1998; Torgesen, 2004). Snow et al. found that effective interventions incorporated reading continuous text, word study, strategies for decoding, writing, and the monitoring of student progress. In the Australian context, Louden et al. (2000) made a number of recommendations for the content of second wave interventions, including: the explicit teaching of phonological awareness; provision of a range of literacy activities; and explicit decoding instruction linked to the reading and writing of connected texts.

In this study, the intervention programs reported across the online, questionnaire, and case study data sets were underpinned by a range of pedagogies and beliefs about what students

with literacy difficulties need to learn, and how they should learn. The two case study schools posited similar ideas about why students experienced literacy difficulties, yet Sacred Heart and Sandy Bay Schools offered different interventions, configured in specific ways within their broader school learning systems, to support students to improve their literacy. As argued earlier, some of the differences in these schools' choice of interventions appear to relate to their respective sector's funding and policy models. Other differences appear to relate to each individual school, and their staff, student, and community needs and beliefs.

There were, however, key similarities in the learning content across all three programs explored in the school case studies. In both settings the intervention instruction was explicit. The teachers and tutors were clear about what students knew and needed to learn next, and students understood their tasks and could talk about what they had learned. Reading Recovery and Literacy Support both included oral language, reading, and writing, and teachers from these interventions tailored programs based on students' assessment and ongoing needs. In contrast, Reading for Life focused primarily on reading and provided the same skills instruction to all students. Both Maria and Karen emphasised the ways in which they adapted instruction based on the needs of the students whilst the Reading for Life tutors, as volunteers, followed their program manuals. Reading Recovery and Literacy Support met many of the criteria suggested by Snow et al. (1998), and all three programs provided both explicit instruction and the reading of continuous text. Importantly, the intervention programs at each case study school were provided in addition to a range of other learning opportunities.

Sacred Heart School provided interventions that were in addition to students' normal literacy instruction. Classroom teachers described a range of learning opportunities for students within the classroom environment, including: wide reading, writing, oral language, and technological opportunities; learning linked to integrated topics; and instructional and independent learning tasks. Interventions in this setting were understood to support students to develop skills, and to increase their confidence and motivation to read. Teachers used data in conjunction with their observations to assess students' progress and achievement in and out of the intervention setting, and to plan for future learning.

Sandy Bay School offered streamed literacy classes that provided students' targeted literacy instruction. In the Literacy Support classes, students received explicit instruction in a number of literacy skills, with the modes of literacy linked, time dedicated to oral

language activities, and attention to metacognition. The Literacy Support teacher, and the teachers who replaced her in this role, emphasised the importance of: identifying difficulties in literacy sub-skills; providing a range of activities to improve students' performance in these; and adjusting teaching to meet students' ongoing development and needs. As explained in the research design chapter, not all of the participating students' classroom teachers could be interviewed about their classroom learning programs, however students and teachers gave examples of the ways in which students engaged in diverse and contextualised literacies across the school day.

The case study participants agreed that no one program would suit every child, and that the needs of the student should be considered when choosing and implementing an intervention. Teachers were more likely to comment that flexibility and the ability to alter intervention programs were important, whilst volunteers believed that clear programs stating what needed to be covered were important. Students themselves all explained that literacy intervention teachers needed to help them with their word level difficulties and offer lots of opportunities to practise skills and reading. Some students further noted that teachers should make the learning fun, and offer some choice. Parents valued clear and honest communication from the school about their child's learning and considered this a priority for any intervention.

5.6.3 Programs or expertise?

A perennial debate in education is whether it is teachers and their expertise, or pedagogical programs that make a difference to students' learning. The Common Core Standards in the United States are believed by many to have prioritised programs over teacher expertise (Hoffman & Pearson, 2015), whilst in some Australian Indigenous communities, scripted Direct Instruction programs have taken the place of both teachers' decision making, and locally valued knowledge (ACER, 2013). In the Victorian context, the principals and teachers at both schools appeared to value teacher knowledge, expertise, and experience over the pedagogical content of specific interventions, believing that it was the skill of teachers rather than the content of programs that enables students to progress with their literacy learning. The only exception to this was Reading for Life, which was deliberately designed as a program for people without training in education to deliver. However expertise was still valued in this intervention, as both volunteer tutors and several staff members commented on the expertise of the program's developers. Common sense suggests that both are important, and that quality programs and teaching methods,

delivered by knowledgeable teachers who make adaptations based on the needs of their students, will have the most impact (Chall, 1983; Hoffman & Pearson, 2015).

5.6.4   Learning at home

Students from each case study school were reported to engage in a range of more and less formal literacy learning activities at home, and both schools expected students to practise reading with their parents, and complete homework at home. As mentioned earlier, some staff believed insufficient home reading practice contributed to students' literacy difficulties. The ways in which the case study students learned in home and community contexts, and their parents' responses to schools' home reading expectations, are reported and discussed in chapters six and seven.

5.7   Relationships

In both schools, positive relationships were reported to be a critical factor in delivering effective literacy interventions, and in supporting students to progress in their literacy development. Effective relationships between teachers, students and families have been identified as fundamental for providing safe and meaningful learning environments for all students (Moll et al., 1992), and in particular for non-mainstream students (e.g. Bishop & Berryman, 2009; Ladson-Billings, 1995; Macfarlane, Glynn, Cavanagh, & Bateman, 2007). The importance of positive relationships was commented on more frequently at Sacred Heart School, and this setting's emphasis on home, community, and school connections appeared to be related to the Catholic values underpinning the school (CEOM, n.d.e). In both schools, intervention and classroom teachers communicated regularly with each other about students' progress and learning. Positive relationships between students and their classroom and intervention teachers and tutors were believed to enable effective learning; and positive connections and open communication between home and school were valued in both settings. The ways in which relationships supported the case study students' literacy development are explored in the following two chapters.

5.8   Conceptualising literacy development as a four dimensional process

All case study participants explained that the literacy intervention/s offered at their school supported students to improve their print literacy, and described this development in four main ways: changes in affective stances towards reading and literacy tasks; observed improvements in literacy skills and behaviours; advances in literacy assessment data; and changes in literacy practices. This broad perspective on how literacy development is evidenced is in line with contemporary expectations that students' academic performance

should be judged in relation to the curriculum, drawing from a range of sources of information (ACARA, n.d.,f).

Qualitative, formative home and classroom observations of changes in students' literacy skills and behaviours, and affective stances towards literacy, were highly significant to participants in both settings, and there was less participant-initiated discussion of formative or summative assessment data, or literacy practices in the interviews. These qualitative observations of literacy change are explored briefly in this chapter, but as comments about attitudinal and other observed changes were often specific to individual case study students rather than generalised to the schools' overall intervention outcomes, they are more thoroughly discussed in relation to individual students' literacy development in the following two chapters. Information on assessment evidence and literacy practices was specifically sought as part of the research design for this study, and therefore, whilst these elements were discussed less frequently in both school settings, they are also explored in this, and the subsequent two chapters.

5.8.1 Affective changes

When asked the general questions 'what kinds of outcomes have you observed from your school's literacy intervention' and 'what changes have you noticed as students participate in your school's literacy intervention', participants in both settings frequently mentioned changes in students' attitudes to reading and to literacy tasks—such as increased confidence in and motivation towards reading and literacy. Henry (principal, Sacred Heart) went so far as to contend that an increase in confidence was the most important kind of change resulting from literacy interventions. Several teachers believed that the smaller and more structured environment provided by literacy interventions had enabled students to develop confidence through participation and success in a safe environment, and some teachers noted that the confidence students gained through their intervention resulted in more holistic gains in self-esteem and improvements in work habits. These perceptions relate to the extensive literature on affective stances—particularly motivation— and their influence on learning to read. Researchers (e.g. Chapman & Tunmer, 2003; Wigfield & Guthrie, 1997) have identified strong links between students' reading achievement, the quantity of reading they engage in, and their affective stances towards literacy. Yet these affective stances are broad in nature, and Jang, Conradi, McKenna and Jones (2015) point out that reading motivation incorporates multiple components, including not just students' enjoyment of reading, but also their understanding of the importance and value of reading.

5.8.2　Observations of literacy skills and behaviours

Another common way in which literacy development and achievement were conceptualised was through observable changes in the literacy skills and behaviours of students. In our interviews, teachers, intervention teachers and tutors, parents, and students shared observations of students' literacy improvement, including: changes in students' decoding skills; the number of sight words they could read and the speed with which they could recognise them; their fluency when reading; and their lower and higher order comprehension skills. Teachers clearly knew their students well and could speak authoritatively about changes they had noticed, and they tended to discuss students' observed progress in formative terms, commenting both on improvements, and next learning steps. These observations provide ongoing evidence of students' learning, and are gathered as students engage in their everyday literacy tasks, and therefore have high context validity. Such an assessment approach positions the teacher as an expert who is in the best position to make judgements about student learning (Cambourne, 1988; Clay, 2013; Y. Goodman, 1982; Tierney, 1998).

5.8.3　Formal assessments

Participants mentioned changes in assessment results much less frequently than either attitudinal or observed changes. It is possible that the focus of this study on broad rather than narrow literacy outcomes may have influenced participants' responses towards more qualitative observations of students' literacy change. However, specific questions were also asked about: the types of assessment data used to identify students for intervention; the measurable outcomes of schools' interventions; and participating students' achievement in relation to their peers. The relative lack of emphasis on formal assessment data was of interest as it provided a different conceptualisation of literacy change to that usually valued in studies of literacy interventions, in which student progress and program efficacy are measured primarily through formal assessments (Bradford & Wan, 2015; Iversen & Tunmer, 1993; Johnston & Watson, 2005; Meiers et al., 2013; Schwartz et al., 2009; What Works Clearinghouse, 2013).

Information about the kinds of assessments schools used to evaluate students' literacy achievement and progress in their interventions and classrooms was gathered during interviews with teachers and principals, and through the collection of case study students' formal assessment data. The tools used included: assessments of literacy sub-skills, including letter/sound, word reading, and phonological awareness assessments; oral assessments of students' reading accuracy, strategies, and comprehension; and independent

assessments of comprehension. These tools were used to identify students' strengths and difficulties, to plan programs, and evaluate students' progress.

Both settings had school-wide assessment schedules, and a pre and post-intervention assessment regime for students participating in literacy interventions. School-wide assessment schedules and tools differed between the two school settings, and whilst Sacred Heart School worked to the more directive assessment schedule of the CEOM, staff at Sandy Bay School had more freedom in choosing the type and timing of assessments they used. This impacted on the data collection for this study as it meant that current assessment data was not available for all case study students at Sandy Bay School at the time of initial and final data collection.

Very few references were made to assessment information gained from NAPLAN assessments. Teachers across both settings made five references to NAPLAN occurring, for example in terms of a school event, or in terms of specific literacy tasks completed in preparation for the assessments. Rowena (principal, Sandy Bay School) commented on the school-wide data that NAPLAN provided, noting that Sandy Bay's average results were high and commenting that she looked forward to an improved and more rapid NAPLAN data dissemination system. In contrast, Henry (principal, Sacred Heart) did not volunteer information about Sacred Heart's NAPLAN results, though when I asked him whether the gains from Reading for Life could be evidenced in this data he said "yes, you can". Participants' limited discussion of NAPLAN data interested me, as some have argued that the introduction of NAPLAN created a testing culture in Australian schools, altering teachers' and principals' work to focus more on test preparation and results (Comber, 2012). Other research suggests possible explanations for the infrequent reference to NAPLAN in this study: Gorur (2016) argues that there is widespread distrust of NAPLAN testing and the data it generates; and Wu (2016) identifies specific issues with using NAPLAN data to discuss individual or school achievement due to reliability issues in the way in which it is reported. Another explanation is that system-wide testing regimes are most useful for detecting patterns in a population rather than providing information about individuals' or even schools' needs (Lewandowski & Marten, 1990).

Running records of students' oral reading were the most commonly used assessment tool across both sites for monitoring students' reading levels both in intervention and classroom settings. Commercial running record kits were used in both case study schools, with Sandy Bay School using the PM Benchmark kit (Smith et al., 2009), and Sacred Heart School

using the Alpha Assess kit ("Alpha Assess", 2007). Running records are a recommended (DEECD, 2009; Hill, 2012; Winch et al., 2010) and effective (Nicholson, 2010) formative assessment practice for emergent readers, and have been shown to contribute to effective literacy teaching (Ross, 2004). However, the value of using running records kit data to make summative judgements on students' reading levels is less clear. Paris and Carpenter (2003) point out that data from such kits "should be considered in light of other evidence about children's reading development" (p. 580). At Sacred Heart School, running records were a key assessment for students in years prep to two, and were also used with students who did not score on the Scholastic Literacy Pro Lexile reading comprehension assessments (Scholastic, n.d.a). At Sandy Bay School, running records formed a major part of teachers' formal literacy assessment from prep through to year six. The usefulness of this school-wide practice is questioned in guidelines from New Zealand—where the use of running records was popularised—which state that "Running records are not intended for use with fluent and independent readers, whose development needs probably relate to making deeper meaning and thinking more critically about texts" (Ministry of Education, 2006, p. 60). Whilst teachers may gain useful information through taking running records on older students with reading difficulties, the extent to which information can be used to establish student achievement in relation to year level expectations is questionable because the oral, collaborative, and supported nature of taking running records differs markedly from the independent comprehension expected of older students as they read to learn (Care, Griffin, Crigan, & Tsurutani, 2011).

Both schools used some measure of online, independent, reading comprehension assessment with older students. At Sacred Heart, Lexile assessments (Scholastic, n.d.a), were used as one formal measure of students' independent reading comprehension in years three and up. The Lexile system uses a readability formula to level instructional texts and library books (Stenner, 2001). At Sacred Heart, students sit ongoing Lexile comprehension tests on the library books they have read, and their scores on these give a Lexile level, which corresponds to suitably levelled reading material in their school library. Whilst an individual assessment differing to more collaborative classroom literacy tasks, Lexile assessments also have elements of familiarity and connectedness to students and their instructional setting. For example, students have some choice and control over the texts they read and are assessed on, and participate regularly in these assessments, therefore knowing what to expect. They experience motivation from the outcome of the assessments, in that improvement enables access to additional and more complex texts.

Sandy Bay School used the Victorian On Demand Reading Comprehension tests (Victorian Curriculum & Assessment Authority, n.d.) for some, though not all older students, which are unstandardized, timed, and independent tools designed to provide an indication of students' performance in relation to AUSVELS (now the Victorian Curriculum) (O'Mara, n.d.). These tests contain a range of text types and questions, and may be relatively abstract for students, particularly those less experienced with independent test taking. Individual students' literacy assessment data and its relevance to their broader literacy achievement will be discussed in the subsequent two chapters.

5.8.4 Literacy practices

Changes in students' uses of literacies were mentioned the least frequently in the school case study data on literacy development. Evidence of change in the ways students actually use literacies in their daily lives demonstrates a significant ability to transfer learning from the classroom or intervention setting (Pearson et al., 2014), and such life-wide changes in literacy practices are highly relevant ways of evaluating student achievement (Purcell-Gates et al., 2004). The relative absence of literacy practices as evidence of development in the school data is not surprising given that contextualised uses of literacies are often specific to the individual. Changes in the six case study students' literacy practices were explored through the use of the LPQ and are reported and discussed in the subsequent two chapters, alongside their: individual assessment data; changes in literacy skills and behaviours; and attitudes towards literacy tasks.

In both case study schools, literacy achievement and development were defined and described using both anecdotal and formal evidence. Both settings emphasised and valued formative, qualitative, and observable data based on students' everyday home and classroom literacy activities. Some differences were identified in the formal assessment tools used for older students at each school, which may have been influenced by more and less directive policies and schedules for literacy assessment in Catholic and Government schools.

5.9 A situated model of literacy intervention provision and implementation

Figure 5.1 shows a more detailed version of the model introduced in chapter three, incorporating the major factors influencing schools' provision and implementation of literacy interventions, and students' literacy development through an intervention. It shows the components within each of the four school and societal factors—outside influences, logistical considerations, expertise, and learning. Figure 5.1 also shows the individual differences factor as incorporating four elements of students' intrinsic

differences, whilst relationships within and between students, educators, families, and communities connect the individual with the learning environments. Literacy development, evidenced in four dimensions, is shown as the output of these factors.

Expertise
Knowledge
Training
Beliefs

Logistical considerations
Who participates
Where
Timing/intensity
Personnel
Cost

Outside influences
Policy
Funding
Research

Literacy development
Measured achievement
Observed skills and behaviours
Literacy practices
Affective changes

Individual differences
Medical
Cognitive
Affective
Home

Learning
Intervention
Classroom
Home

Relationships
Teacher
Parent
Student

Figure 5.1. A situated model of literacy intervention provision and implementation.

In Figure 5.1, each of the six influencing factors is conceptualised as a potential influence on school and students' literacy development, which can be evaluated on a sliding scale ranging from highly enabling to highly constraining. Literacy development is shown as the interaction between these factors and is comprised of four dimensions: affective changes; observed skills and behaviours; measured achievement on assessments; and changes in literacy practices. These dimensions of literacy development can also be evaluated on a sliding scale ranging from highly positive to highly negative change.

In this discussion of the State and school level findings of this thesis, I have identified six major factors impacting on schools' literacy intervention provision. In particular, I have described the impact of outside influences; and the impact of these on school-level logistical considerations, expertise, and learning opportunities. In Figures 5.2 and 5.3, I use the situated model described above to map how these four factors were shown to influence literacy intervention provision and implementation in divergent ways at Sandy Bay and Sacred Heart Schools.

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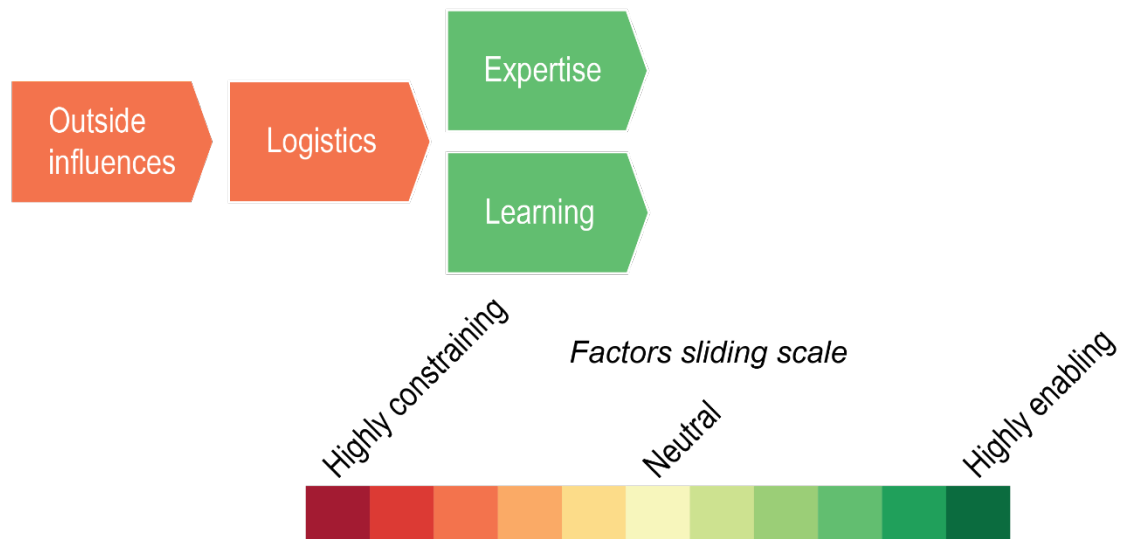
Figure 5.2. Enabling and constraining factors influencing Sandy Bay School's provision and implementation of literacy interventions in 2014 and 2015.

Figure 5.2 maps the relatively constraining influence of DEECD/DET policy and funding on Sandy Bay's ability to offer a sustained literacy intervention delivered by a specialised teacher. This in turn made the logistics of funding and staffing their Literacy Support program challenging. Sandy Bay School did have access to expertise through Karen, their Literacy Support teacher in 2014, and through the DEECD/DET regional office, but Karen's input could not be sustained, and access to other expertise was limited. The Literacy Block model across the school was reported to offer quality learning experiences, but some students in the Literacy Support classes experienced interrupted learning once Karen had left, and classroom teachers noted that they needed more support to deliver this program. Figure 5.2 shows that despite relatively constraining outside and logistical factors at Sandy Bay, the school still had some access to expertise and offered relatively enabling learning programs.
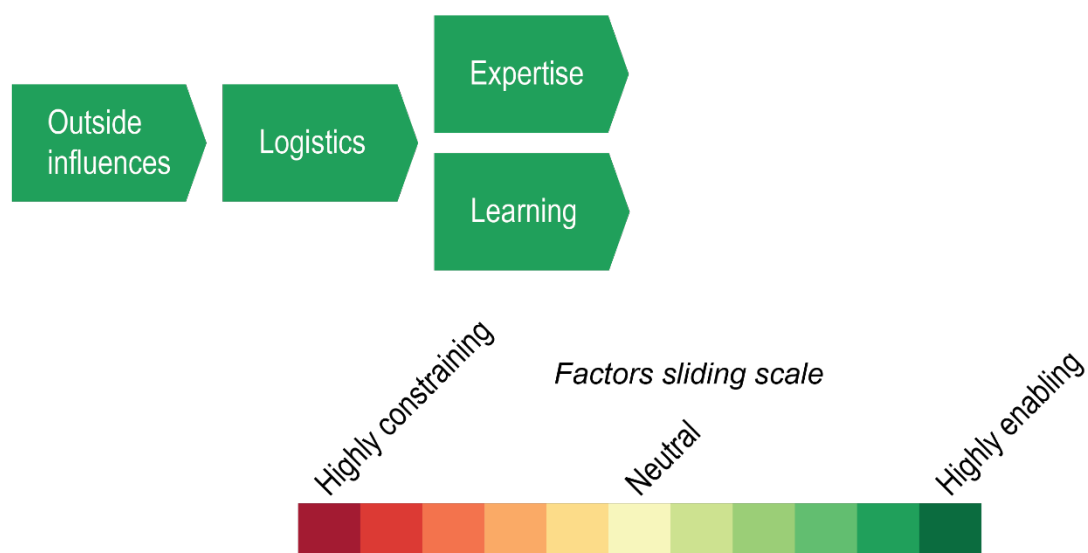
Figure 5.3. Enabling and constraining factors influencing Sacred Heart School's provision and implementation of literacy interventions in 2014 and 2015.

Figure 5.3 maps the relatively enabling CEOM literacy policy and funding influences under which Sacred Heart School operated. These in turn made the logistical day-to-day business of funding, staffing, and delivering literacy interventions manageable. Consistent access to a range of expertise supported Sacred Heart to offer sustained literacy learning programs, and to offer interventions for younger and older students. Figure 5.3 shows that each of these factors was found, overall, to be quite highly enabling across the data sets.

The situated model developed for this thesis enabled key differences between the case study schools' literacy intervention provision and implementation to be mapped. In the following two chapters, this model is applied to the individual student case studies in order to demonstrate how students' individual differences interacted with their respective learning environments and interventions, producing distinct kinds of literacy trajectories.

5.10   Chapter summary

This chapter has described and discussed key factors that influenced literacy intervention provision at State, and at individual school levels in Victorian primary education settings in 2014. It has illuminated the influence of outside factors such as school sector policies, funding directives and recommendations; and demonstrated how these impacted on the extent to which interventions were offered in schools from different sectors. These school case studies highlighted how outside influences in turn affected both the logistics of implementing literacy interventions, and the degree to which these schools had easy and ongoing access to literacy experts.

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Despite the identified structural sector differences, the case studies also showed how effective literacy intervention programs, delivered in cultures of broader literacy learning and positive relationships, were offered in one Catholic and one Government school, and were valued opportunities in both settings. In these settings, literacy difficulties were understood to be underpinned by of a range of possible intrinsic and extrinsic causes, and participants in both schools commonly agreed that both may play a part. The situated model outlined in the methods chapter—comprising of the State, school, and individual factors discussed in this chapter—was applied to the data from each case study school, in order to identify factors enabling and constraining literacy intervention provision in that particular setting. The following chapter—Individual case studies—describes: six case study students; their individual differences; home, school, and intervention learning opportunities; and literacy development. It uses the situated model to identify enabling and constraining factors influencing each student's literacy trajectory, and to theorise causal factors for students' differing literacy development outcomes.

6. Results chapter two – Individual case studies

6.1 Chapter overview

This chapter presents narrative case studies of six students—three from each case study school—who participated in one or more intervention/s to improve their print literacy between 2013 and 2015. These cases offer specific examples of how literacy interventions, in tandem with other factors, contributed to individual students' literacy development. The narratives are multi-voiced, including teacher, tutor, parent, and student interview data, as well as school and intervention assessment data. Each begins with a brief description of the student and the circumstances leading to their participation in an intervention. Next, the student's learning in their intervention, classroom, and home environments is outlined; and the expertise that contributed to their learning in these contexts is discussed. The student's literacy development is described in terms of changes in: their assessment data; their observed literacy skills, strategies and behaviours; their affective stances towards literacy; and their literacy practices. The situated model discussed in chapter five is used to map the influence of the identified factors on each student's literacy development. Finally, the case studies conclude with participants' hopes and expectations for the student's future literacy development. Whilst each case narrative covers the same broad areas, they are not uniform, as some students' data sets were larger than others, and different key factors were found to impact on each case study student's literacy trajectory.

6.2 Intervention in the early years of school

6.2.1 David

At the start of the year, forget it, you were chasing him around the house trying to get him to sit down to actually read. We thought he was enriched when he was in prep, but we noticed when he first started grade one, just he got very frustrated, he found it very difficult to read. And it was then that David was placed in to the literacy program. But at the same time I actually took a bit of initiative and also got him a tutor outside the school as well. So then she did an assessment on him, and diagnosed him with mild dyslexia. So we learned that he has, he just learns differently. (Christine, David's mother, interview one).

Table 6.1

Participants and background information for David's case study

Setting		Sandy Bay School	
Year level		One and two	
Age at first interview		Seven years, ten months	
Intervention		Literacy Support	
Person	Role	Interviewed in:	
		12/2014	04/2015
David	Case study student	●	●
Christine	David's mother	●	●
Karen	David's year one Literacy Support teacher, terms one-three	●	
Melissa	David's year one Literacy Support teacher, term four	●	
William	David's year two classroom teacher		●

David was in years one and two at Sandy Bay School over the course of this study, and was seven years, ten months old at the time of our first interview. He was a talkative participant with keen interests in motorbikes and Minecraft.

David's assessments on entry to Literacy Support at the beginning of year one showed that he was reading at PM Benchmark (Smith et al., 2009) level four, approximately three months below the expected level for a student exiting prep and entering year one in the Victorian Government school system ("Benchmarking ready reckoner", n.d.). His skill assessments showed that he knew the names of 51/52, and the sounds of 43/52 letters, and could read 38 of the 100 most common sight words. In the Royal Children's Hospital Auditory Processing Assessment (Rowe, Pollard, & Rowe, 2006), he could repeat sentences of up to 10 words, and strings of up to four digits, achieving at the 50th percentile

for his age group on each of these sub-tests. David's score on the SPAT-R (Neilson, 2003) test was 31, placing him just below the 75th percentile, and showing he had a high-average level of competency in phonological awareness and processing in comparison with other students of his age. Early in 2014, David was diagnosed with mild dyslexia through a private assessment with his home tutor. The method by which this diagnosis was made is not known.

6.2.1.1 Learning

At the time of our first interview David had participated in three terms of Sandy Bay's Literacy Support program in a homogenous class of 18 year one and two students, taught by Karen. In term four of 2014, this class was taught by Melissa, a regular classroom teacher, with some coaching from Karen. Melissa described the Literacy Support classes as following a regular, predictable structure, having clear expectations and incorporating excellent home-school communication. She explained:

> We have speaking and listening every day, we have our reading every day, we
> have our writing every day, and we have our spelling or word work every day,
> so the kids know exactly what's coming, they get that same message every day,
> they get that same practice every day, and they know what's happening, they
> don't have to worry about or have any anxiety about 'what I'm going to be
> doing, can I do it?', they know that they can achieve. I think that's probably
> the main thing is that they know they're all going to be successful. (Melissa)

David shared that in Literacy Support he did writing, spelling, "riddles where you have to fill in the gaps", nursery rhymes, and occasionally cooking. He also explained "we've been doing some sounds and very long ones like 'tion" (interview one). Information about David's classroom learning in 2014 was not collected as he worked with many teachers across the school week, and interviewing each of these staff members was not possible due to time constraints and challenges in releasing multiple members of staff across the school.

David and his mother Christine described many ways in which David engages with literacies at home and in the community, including: using technology; reading environmental print; completing homework; reading to an adult; and creating and fixing in and out of the house. Christine discussed how she believed it was very important for schools to be honest and open with parents about students' learning difficulties. She explained that, once she learned of David's literacy difficulties through his placement in the Literacy Support class, she wanted to explore ways in which she and the rest of

David's family could help him at home, and sought additional assessment and instruction with a private tutor.

> I suppose just by engaging someone else outside too, I was able to work out exactly what I could do. Because that's probably the thing I found is that the program [Literacy Support] is good but I wanted to help him a little bit more myself. And by engaging the tutor it enabled me to figure out what was wrong and how we could help him best (Christine, interview one).

6.2.1.2 Literacy development

6.2.1.2.1 Assessment data

David made slightly accelerated progress in his instructional reading book level, as measured with the PM Benchmark running record kit (Smith et al., 2009) during 2014, moving from level four to level 16.
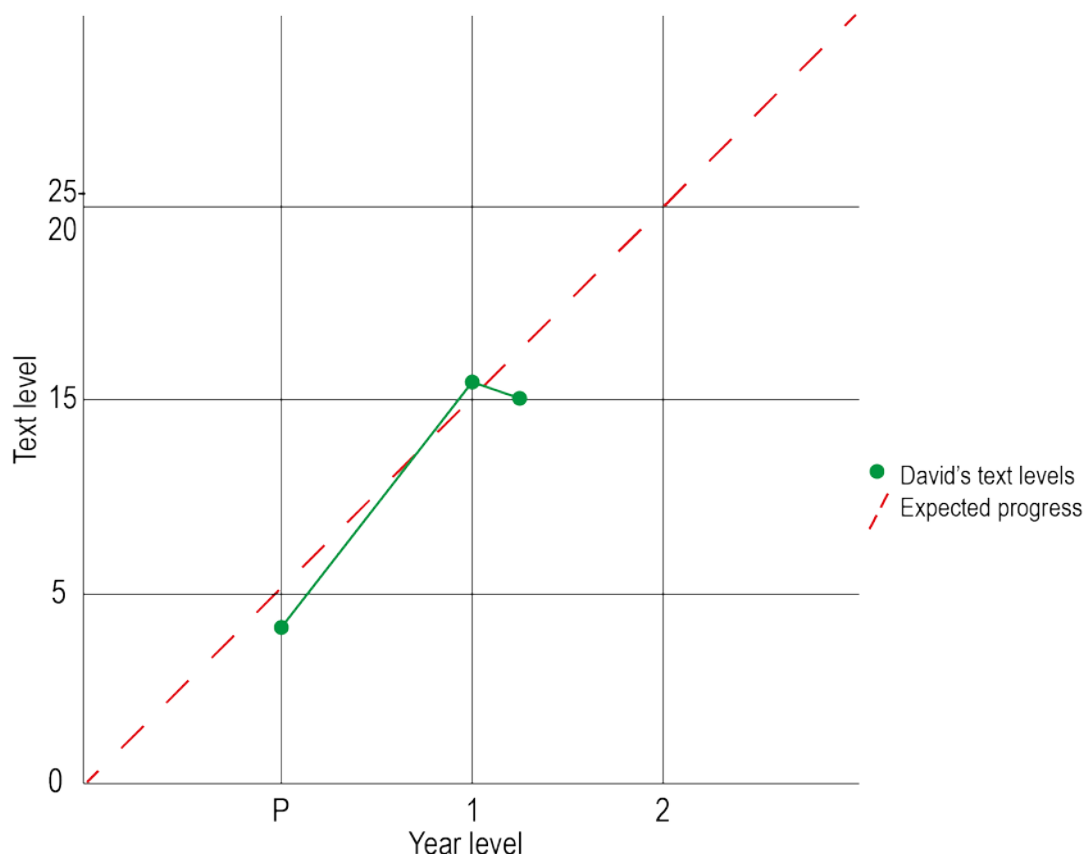
Figure 6.1. David's text levels at the beginning, end, and one term after completing Literacy Support, as assessed using PM Benchmark and classroom data.

Figure 6.1 shows David's progress in reading book level over time, in relation to the expected text levels for students in Government schools at the end of each school year ("Benchmark ready reckoner", n.d.). When I visited in April 2014, David had not yet sat

another PM Benchmark assessment (Smith et al., 2009), but was reading at level 15 during classroom reading instruction.

6.1.1.2.2   Observed changes in skills and behaviours

At our first interview, David described reading as being "pretty easy", noting that "long words I've never heard of before, names of countries, names of places" were more difficult. Melissa observed that David had improved in a range of literacy skills in Literacy Support. For example, he enjoyed writing a range of text types, was beginning to read aloud with fluency and expression, and was beginning to self-correct errors when reading. She theorised that as he had improved his decoding skills, he was now able to focus on other areas of reading:

> So he's got that decoding pretty much under control and now he's focusing on how he sounds as a reader rather than what the words actually say. So he's looking at full stops and commas and talking marks and things and enjoying reading with expression. (Melissa)

By our second interview, Christine had noticed other changes at home, discussing how David:

> Knows a lot more words than what he used to. He's good about, very much, he likes to talk about stories but he also likes to make up stories as well. He'll read something and then he'll explore it further. So it's not just about [inaudible] it's going one step further, sort of asking questions regarding it. (Christine, interview two)

Christine also noticed that David did not necessarily sound words out but "guesses words but then he'll realise what word it is" (interview two). David also commented on his decoding in our second interview, observing that bigger words were easier for him to sound out than smaller ones as they had more letters.

William was David's classroom teacher in 2015, teaching him across the day in a non-streamed environment. He was positive about David's literacy, commenting that he had good learning habits, solid strategies, and could apply the knowledge he had gained through books to practical experiences and vice versa. He also explained that David had one good friend in the class, implying that this positive relationship assisted him as a learner at school.

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6.1.1.2.3 Affective changes

During 2014, David had become more confident with reading at home, was no longer frustrated when reading and writing, and had started to volunteer to read to an adult. Melissa had also observed a growth in his confidence at school, and stated that David was now happy to read and act in front of the class, and to complete and share voluntary homework tasks. Both Christine and Melissa attributed this growth of confidence to David's improvement in literacy skills, which they believed had been a catalyst for increased engagement in literacy practices. In 2015, William described David as a confident and motivated learner, whilst Christine confirmed his continued positivity at home, sharing that: "He's really happy doing what he's doing, he's happy to read, and he's happy to do it on his own as well" (interview two).

6.1.1.2.4 Literacy practices

> I normally like to read about motorbike books, so I can learn more about motorbikes and how to do backflips on a motorbike…sometimes we do fix them, that's why we get books, to help us fix them (David, interview one).

David's reported literacy practices in 2014—as gathered using the LPQ—comprised 19 of the 21 practices, whereas in 2015 he reported engaging in 17, explaining that he no longer used his mother's phone as he now had his own iPad, and that he did not read signs. When discussing the frequency with which he engaged in practices, David used the weekly, twice weekly, and daily or more categories, but not monthly, or less than once a month, leading me to wonder whether these less frequent activities were harder for David to remember. David was an enthusiastic respondent, stating that he felt good or excellent about participating in 15 practices, and neutral about engaging in the other four. He did not use the negative categories on the positivity Likert scale.

The parent and teacher LPQs provided additional examples of the ways in which David used literacies, and Christine was able to add retrospective details, for example, noting that whilst David enjoys reading now, he did not in the past. She also remarked that whilst David had become less interested in reading road signs in 2015, he was very observant of the car speedometer whilst she was driving! William provided information about David's classroom literacies, such as his use of an iPad to record his learning during investigative learning time.

David's LPQ data is summarised in Figure 6.2, with illustrative quotes from his and the other participants' LPQs providing specific examples of his literacy events.

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He particularly gets a large sense of enjoyment out of doing things, fixing things (Christine, Int 2).

Learning programs: Wordshark, Reading Eggs, powerpoint presentations, word, excel (Christine, Int 1).

Audio books cause I love them..I listen to them at night in my bed (David, Int 1).

Positivity

Excellent

Menus +
Camera
Cooking - +

Directed writing

Magazines
Working outside
Tablet

Minecraft magazine (David, Int 1 & 2).

I play minecraft.. I am going to get a couple of new games. And normally do some writing on there too for homework (David, Int 2)

Good

Labels +
Computer -

Library

Own writing +
Read school book + -
Read other book +
Wii + -
Listen to story -

He's a contributor.. when we talk about the story or try and make links.. he's good (Will, Int 2).

Neutral

Junk mail -
Make lists - -
Craft - -
Board games - -

Weekly   Twice weekly   Daily

Frequency

+ Practices increasing in frequency or positivity.

- Practices decreasing in frequency or positivity.

- - Practices decreasing in both frequency and positivity.

+ - Practices increasing in frequency and decreasing in positivity or vice versa.

Figure 6.2. David's reported literacy practices in April 2015, showing changes in engagement since December 2014.
Larger font indicates more frequent and positive practices. Illustrative quotes from David, his mother, and teacher offer examples of these practices.

Figure 6.2 shows that in April 2015, David reported feeling positive about and engaging daily in a range of different literacies: working outside; using an iPad and Wii; doing his own writing; listening to stories; and reading magazines, school books, and books of his own choice. He reported reading school and other books more frequently than in 2014, and feeling good about doing so, though this was a reduction in positivity as he had reported feeling excellent about reading school books in 2014. There was also a set of practices that David reported doing less frequently, or feeling less positive about engaging in, or both in 2015: reading junk mail; making lists; doing craft; and playing board games.

The qualitative examples David gave provided an insight into how his literacy practices were inextricably linked to their social purpose. For example, he felt excellent about reading Minecraft magazines as they taught him things he could do in his favourite game. Some of his illustrations suggested an increase in literacy complexity, for example, in 2014, David explained: "I get to play on the iPad everyday: Minecraft, Spymouse, Terraria"; whereas in 2015 he had his own iPad and now used it for both games and school related work, stating: "I play Minecraft and.. normally I do some writing on there too for homework". Two of the practices David reported a decrease in positivity towards were making lists and looking at junk mail. I wondered whether it was possible that these responses were related to the time of year—as both these activities could be much more exciting and meaningful in the lead up to Christmas than in April.

The books David discussed in our interviews increased in complexity and in subject matter from the first to the second phase of data collection. For example, his library choices had shifted from: "Audio books cause I love them, cause you just get them and I listen to them at night in my bed" (interview one); to his first chapter book— *The Diary of a Wimpy Kid* (Kinney, 2007)*,* a text he spoke excitedly about, explaining "It's got two chapters, chapter funniness of turkey and the other one is just a made up story" (interview two). Christine similarly noted more enthusiasm towards and sophistication in David's book selections, explaining that he was choosing more challenging texts, and reading for longer periods of time. She also shared information about David's first chapter book:

> He was so proud of himself last night. He got a book from the library and he said 'Mum can I read before I go to sleep?' and I thought he'd been reading for 10 minutes but he read for almost an hour! (Christine, interview two).

6.1.1.3 Enabling and constraining factors

Figure 6.3 utilises the situated model described in the previous two chapters to map the influence of six key factors—outside influences, logistical considerations, expertise, learning, relationships, and individual differences—on David's literacy development. In this, and in the subsequent models for the other students' case studies, enabling factors are shown in gradients of green, neutral factors in beige, and constraining factors in gradients from yellow to red. These models offer a visual summary of the key influences on each student's literacy development, enabling comparisons to be made between students' models in the subsequent chapter—discussion two.

Factors and literacy development sliding scales
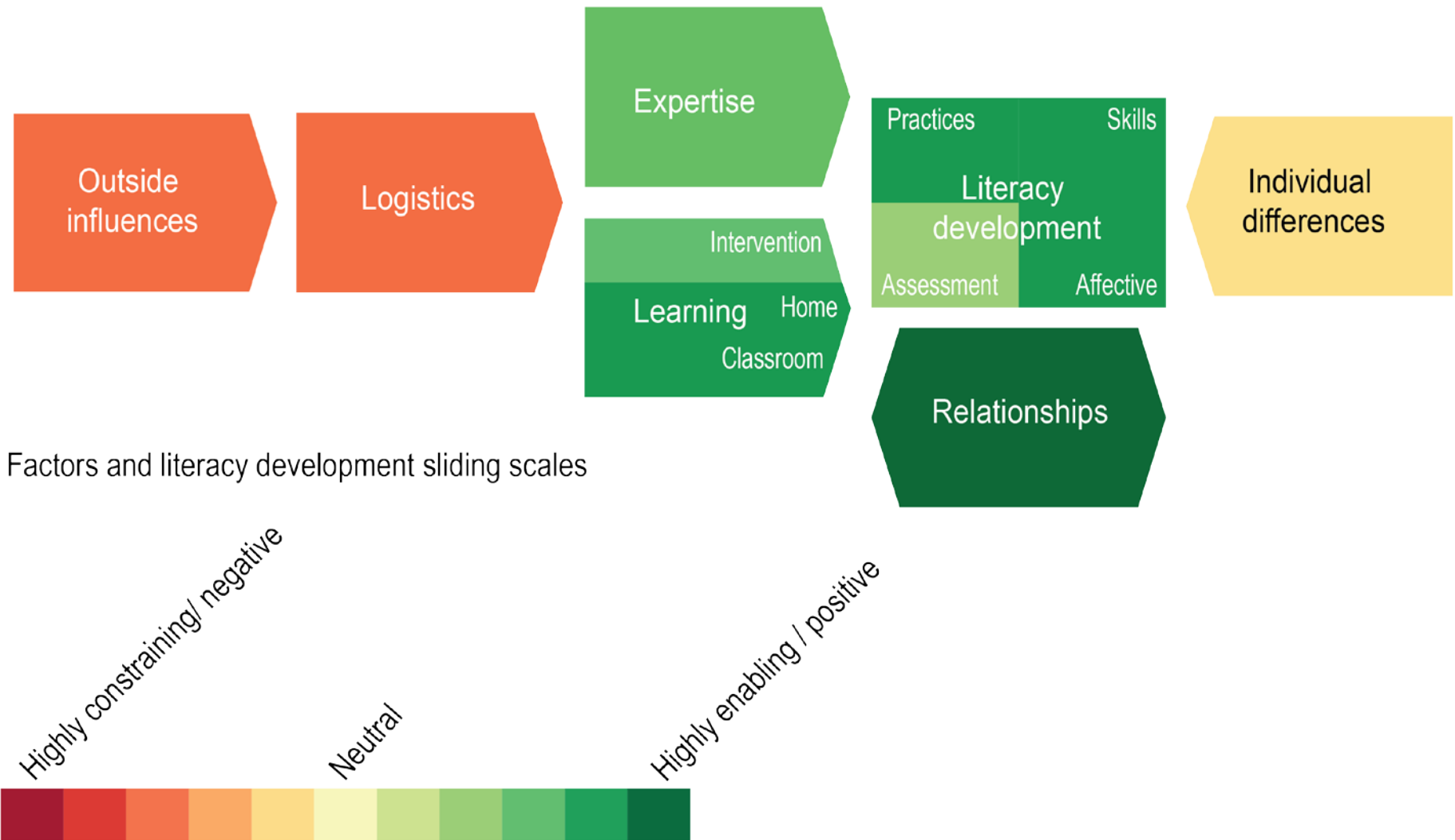
Figure 6.3. Situated model mapping the factors enabling and constraining David's literacy development through and beyond his participation in Literacy Support.

Figure 6.3 includes the State and school level factors—outside influences and logistical considerations—which were discussed in depth in chapter five. As discussed earlier, these outside influences were found to have impacted negatively on Sandy Bay School's ability to offer continued literacy intervention programs delivered by a specialised teacher. Yet Figure 6.3 shows that in David's case, these broad influences did not negatively impact on his access to teachers and tutors with expertise in literacy, nor on his quality of learning subsequent to participating in Literacy Support.

David benefitted from the expertise of Karen in the Literacy Support program, his private tutor, and his classroom teachers. He learned in a range of contexts including Literacy Support in 2014, and home tutoring over 2014 and 2015. David engaged in contextualised home and school literacy practices and had access to digital learning devices and a range of media. At a school level, the cessation of Karen delivering the Literacy Support program in term three of 2014 was understood to constrain Sandy Bay staff and students' access to expertise and specialist literacy programs. However, in David's case, this did not appear to negatively impact on his learning, as he was reading at a level close to that expected for his year, had returned to a heterogeneous classroom environment, had the safety net of continued tutoring at home, and was an engaged and purposeful user of print literacies. Therefore, Figure 6.3 shows expertise and learning as enabling factors for David.

At the individual level, David exhibited minimal differences and difficulties in relation to the expected levels and norms for students beginning year one in Victorian Government schools at the start of his Literacy Support program. He was reading only slightly below the expected text level for his year group and therefore did not have to catch up much in order to meet year level expectations. Whilst Christine reported that David had a diagnosis of mild dyslexia, the specific assessments used by his private tutor in diagnosing this are not known. However, he would have been too young to have been tested with a full IQ battery at the time of his diagnosis. David also demonstrated superior phonological awareness in the SPAT-R test (Neilson, 2003) and so did not exhibit the key characteristic typifying most students with dyslexia. David did display affective difficulties, in that he found reading frustrating and was reluctant to read at home. David's individual differences are shown as slightly constraining in Figure 6.3.

Christine identified a number of factors she believed had contributed to David's literacy progress, including the Literacy Support class, private tutoring, reinforcement of learning at home, enjoyable learning opportunities, and positive relationships with his teachers and private tutor. She noted that David had a particularly positive relationship with his 2015

teacher, explaining that they had shared interests and that David "worshiped" William (interview two). William himself also prioritised relationships, stating that "I still think the relationship with their home teacher is the most influential thing on whether they'll learn or not". Relationships are shown as a particularly strong enabling factor in David's model.

David's literacy development is shown as the outcome of these six factors. For David, positive improvement was evidenced across all four areas—in his assessment results, in changes in observed skills and behaviours, in attitudinal shifts, and in his increased complexity of print literacy practices. Whilst David's final data point for his text level suggested a slight drop from his end of 2014 result, this was based on his classroom reading group level rather than an assessment tool. David's increased complexity in self-selected texts, and his ability to read these independently and to discuss them at length, suggest that David's reading had continued to improve in 2015.

All participants, including David, believed that he would continue on a successful literacy trajectory, maintaining progress with his peers.

6.1.2 Georgia

> She enjoyed her reading in prep, even though it was a bit of a struggle, when she'd
> move on in her words and things like that, it was very exciting for her. But she did
> struggle...

> I really struggled at school with reading. Her Dad was dyslexic. So I don't know if
> it's hereditary or things like that. But I know what I went through so I can
> understand what she's going through and the frustration that she's going through
> (Amy, Georgia's mother, interview one).

Table 6.2

Participants and background information for Georgia's case study

Setting	Sacred Heart School		
Year level	Preparatory and one		
Age at first interview	Six years, two months		
Intervention	Reading Recovery		
Person	Role	Interviewed in:	
		12/2014	04/2015	07/2015
Georgia	Case study student	●	●	●
Amy	Georgia's mother	●	●	●
Kathryn	Georgia's prep and year one classroom teacher	●	●	
Maria	Georgia's Reading Recovery teacher	●	●	●

Georgia was a prep student at Sacred Heart School when I first interviewed her in December, 2014. She loves posing for selfies, enjoys making cards for people, and helps with cooking and making the shopping list at home. Georgia, her mother—Amy, and her Reading Recovery teacher—Maria, were interviewed three times: in the first term of Georgia's intervention; at its conclusion; and one school term after its conclusion. Georgia's classroom teacher—Kathryn was interviewed twice—in the first term, and at the conclusion of Georgia's intervention, but was on long service leave at the time of the third interviews in July, 2015.

In her prep year, Georgia could write her first name and the initial of her surname, enjoyed relaying her news at oral language time, and liked listening to stories. She was identified as being in need of extra support in literacy by her classroom teacher—Kathryn, who noticed that she was not learning to recognise sounds or sight words, did not understand writing conventions such as leaving spaces between words, and was not able to read emergent reading texts with the rest of the students in the class. Kathryn also noticed that Georgia forgot instructions easily, and could demonstrate skills one day but appeared to have forgotten them by the next.

Amy explained that she herself had had difficulties in learning to read, and that Georgia's father had dyslexia. She, Kathryn, and Maria described Georgia as having a short attention span in general, and avoidance behaviours around reading. The teachers explained that Georgia's parents had separated earlier in 2014, and had noticed that this had impacted on her ability to focus at school. Kathryn and Maria also raised concerns about the extent to which school reading practices were being reinforced at home. Amy observed that Georgia was aware her classmates were making faster literacy progress than her—for example, through noticing that they had more complex lists of sight words to practice—and this concerned her.

Georgia's assessments on entry to Reading Recovery showed that she was reading at text level zero using the Alpha Assess running record kit (2007), meaning that at this point, she was not able to read short texts with one repetitive sentence on each page and supportive illustrations. On the Observation Survey (Clay, 2013), Georgia could: identify 39/54 letters (either by name or sound); read one common sight word; and write eight words. She correctly responded to half of the questions in the Concepts About Print (CAP) sub-test—a measure of students' familiarity with text conventions. When writing a short dictated sentence for the Hearing and Recording Sounds in Words sub-test, she could hear and correctly record 22 of the 37 sounds.

At times in our interviews, Georgia would fidget, change the subject, or tell a story about her life. Her silences, evasions, and non-committal replies are data, and I mention them here so that they do not get forgotten amongst the responses of the adult participants in Georgia's case study, or become overshadowed by vignettes from more confident and articulate case study students in this thesis.

6.1.2.1 Learning
In the classroom, Georgia participated in a range of literacy instruction tasks, including: oral language activities; structured print literacy activities including phonics instruction,

modelled and guided reading, and writing on a range of topics; and digital technology activities. At times she received additional support from the classroom integration aide, including sessions to reinforce her phonic knowledge and skills. Georgia remained with the same teacher—Kathryn—throughout prep and year one.

Georgia was selected for Reading Recovery in the fourth term of her prep year, and had been in this program for seven weeks at the time of our first interview. Amy hoped that Reading Recovery would enable Georgia to improve at sounding out words and reading sight words, and also boost her confidence in reading. When asked what she believed would help Georgia to be a more successful reader, Amy responded:

> I think it's just time with her. Yes. Because she does get very frustrated in herself if she can't sound out a word or if she gets the letters wrong. So I think it's just telling her it's ok and to take her time (Amy, interview one).

In Reading Recovery, Georgia maintained "We just do work, work, work" (interview two), and Maria acknowledged her Reading Recovery lessons followed a tight structure, incorporating reading from familiar texts, working with words and letters, writing a sentence or two, and concluding with reading a new text.

At home Georgia engages in a range of literacy activities with her mother and the extended family with whom she lives—who share the role of listening to her read. These activities include helping with the shopping list, reading environmental print around the community, and using her mother's phone. Amy explained that it could be very challenging to get Georgia to attempt to read at home, describing how: "she just lies down and she's like 'I don't want to do it'.. she tries to drag it out as well, she looks elsewhere and things like that" (interview one).

6.1.2.2 Literacy development
6.1.2.2.1   Assessment data
Georgia initially made rapid progress in instructional reading book level in her first term of Reading Recovery, moving from Alpha Assess (2007) level zero to level six, then regressing by one text level over the summer holidays. She then had a sustained absence from school to recover from a tonsillectomy in the first term of 2015. Kathryn explained that she was "flat and low" for some time after this, only picking up in energy towards the end of term one, 2015 (interview two).
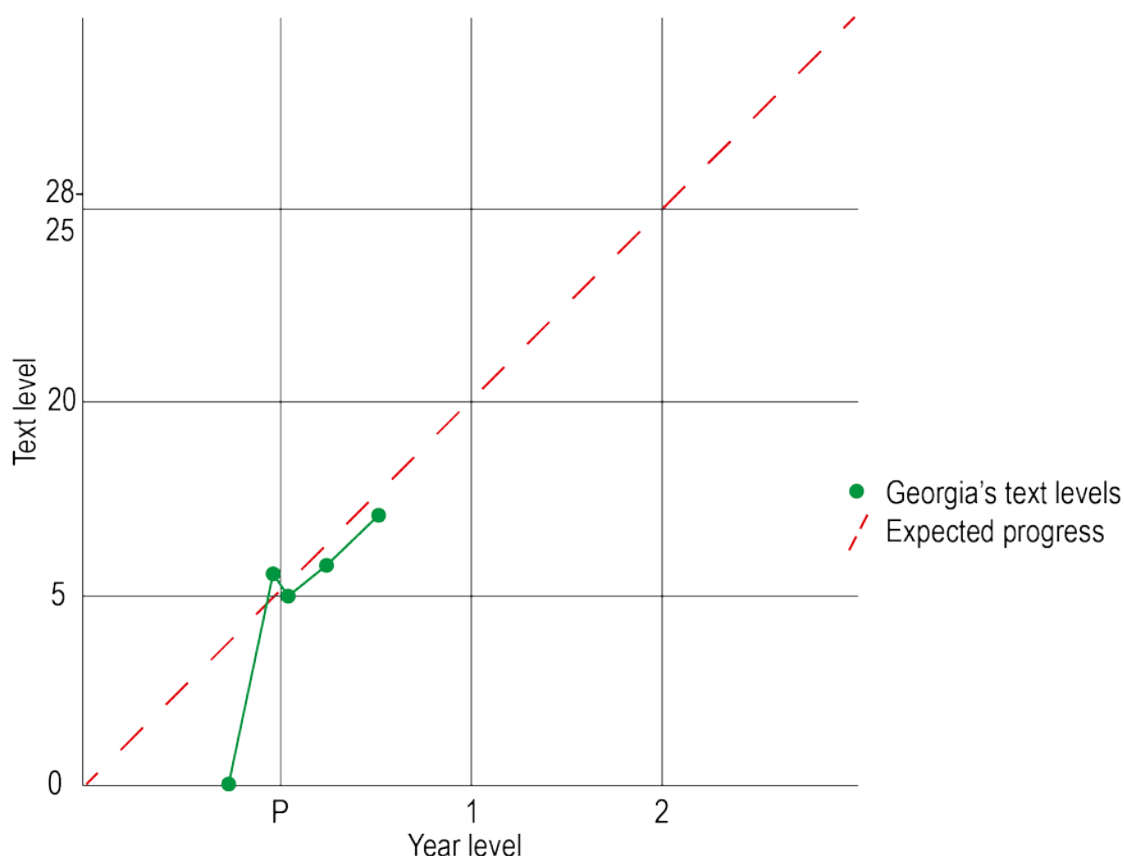
Figure 6.4. Georgia's text levels from the beginning of, to one term after completing Reading Recovery, as assessed using Alpha Assess and Reading Recovery running record data, and classroom data.

Figure 6.4 shows Georgia's instructional reading text levels over time, as assessed with the Alpha Assess kit (2007), running record data from her Reading Recovery program, and classroom instructional reading level data for the final data point. At the conclusion of her 20 week Reading Recovery program, Georgia was reading between Alpha Assess levels seven and eight. This meant she had not made sufficient progress to be a successful discontinuation from Reading Recovery, as she was unlikely to meet the CEOM reading achievement benchmark of Alpha Assess level 20 for students at the end of year one. The Observation Survey (Clay, 2013) and the Record of Oral Language (ROL) (Clay, Gill, Glynn, McNaughton, & Salmon, 2015) were also used to track Georgia's progress in literacy sub-skills over her Reading Recovery program. Table 6.3 summarises the data from these assessments.

Table 6.3

Georgia's Observation Survey and Record of Oral Language data

| | Literacy skill assessments | | | | | | | | | | | | |
| | Letter Id. | | CAP | | Word Reading | | Burt | | Writing Vocab. | | HRSW | | ROL |
	Score /54	Stanine	Score /24	Stanine	Score /15	Stanine	Score /110	Age band	Score	Stanine	Score /37	Stanine	Score /42
Entry to RR	39	2	12	4	1	2	2	-	8	3	22	3	34
Beg. Year 1	51	4	20	6	5	1	12	-	15	3	25	2	36
Exit from RR	48	3	19	5	9	2	19	-	30	5	31	3	38

In Table 6.3, both scores and stanines[10] are shown for the Burt word test (Gilmore et al., 1981), and each of the subtests in the Observation Survey (though not for the ROL as this tool is not norm referenced), enabling comparison between Georgia's scores and the average achievement for other students of her age. Georgia's CAP scores were consistently average for her age, whereas her Letter Identification, and Writing Vocabulary scores varied between average and low, and her Hearing and Recording Sounds in Words (HRSW) scores were consistently low. Word reading appeared to be particularly difficult for Georgia, and this was evidenced both in her low Word Reading stanines, and in her Burt word test (Gilmore et al.) scores which were consistently below the six year old norm of 20 words needed to score in the first age band of this assessment. Georgia's ROL data showed a slight increase in the complexity of sentences she was able to repeat at each data point.

At the conclusion of her Reading Recovery program, Georgia was referred on to the student support team at CEOM for additional assessment, which consisted of the SPAT-R test (Neilson, 2003). Maria reported that Georgia performed successfully on this measure, though the test score was not provided to the school or available from CEOM. She explained that the student support team had recommended "strong classroom literacy instruction" for Georgia (interview two). Subsequent to this assessment, Georgia's instructional text level continued to improve and, as shown in Figure 6.4, one term after the conclusion of her Reading Recovery program, she was reading at level 11 in the classroom.

6.1.2.2.2   Literacy skills and behaviours

She's a slow processor, so even when she is reading and working on text, she's

very, very slow with her processing and even sight words still don't come

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[10] A stanine scale ranks standard test scores from one to nine, with an average of five. Stanines one to three indicate very low skill levels, four to six an average band of achievement, and seven to nine high achievement; relative to other students of the same age or year group.

automatically to her. Sometimes she'll still say 'is that a b or a d?' So she still has a few letter confusions there (Maria, interview two).

At the time of our second interviews, Maria and Kathryn were waiting for CEOM to assess Georgia so that they could learn more about her literacy difficulties.   Maria noted that Georgia's progress across all literacy skills had been very slow, and that she had particular difficulty in reconstructing the cut up sentences in her Reading Recovery lessons. However, despite these concerns, Maria explained that Georgia had in fact acquired many skills whilst in the program, had moved from not being able to read simple texts at all to reading texts at level seven, and now knew some sight words. She was writing short stories of one to two sentences that were related to topics of interest to her, using some sight words and phonetic attempts at spelling, and was often remembering to put spaces between words.

Georgia herself felt that she had improved in writing, stating that she could now write 'the', and demonstrating how she could now read some longer words in her familiar reading books, such as 'sparrows' in *Sally and the Sparrows* (Giles, 1996). Her goal at this point was to write bigger stories. In her short responses, she referenced word level challenges, saying that "Umm, not sounding them out" was a challenging aspect of reading (interview two).

Kathryn and Maria attributed Georgia's limited progress to a number of factors, including Georgia's distractedness and reluctance to read, her absence from school, inadequate home reading practice, and underlying processing and memory issues. They wondered whether Georgia had a specific literacy difficulty, possibly linked to her father's dyslexia. She had been assessed by a behavioural optometrist and was now wearing glasses. Kathryn observed that Georgia was struggling across other academic areas, and that time out of the classroom to attend Reading Recovery had meant that Georgia missed instruction in other key learning areas such as mathematics. All adult participants looked forward to learning more from the CEOM assessment, and Amy hoped that this information would help Georgia to: "catch up.. a lot! Because she knows in herself that she's behind and I think that upsets her a lot too. And yes, just the expectations would be to get her to where she wants to be, too" (interview two).

When I visited Sacred Heart School in July, 2015—one term after Georgia had finished her Reading Recovery program—Maria was pleased to report that Georgia had continued to learn with her peers in the classroom. She had increased the number of sight words she

could read, and had made particularly good progress in writing – creating stories of a page or more about topics of interest to her using common sight words and phonetically plausible attempts at more challenging words. Maria shared her thoughts on Georgia's progress:

> Her writing, she has gone from being lucky to be able to write two lines and forgetting spaces between words and not really hearing the sounds in words as well as she should, to writing up to a page and a page and a half of writing. And it's readable. The spelling's not conventional but phonetically I can read it.. she's able to structure her words and her sentences together, that it makes meaning. So yes, that's improved outstandingly, I think her writing has improved more than her reading as far as that's concerned. Yes. So she's doing well (Maria, interview three).

Amy felt that Georgia's reading was "amazing", explaining that "she's not guessing words anymore, she's having a good go at them" (interview three). Georgia excitedly told me that she was up to her green sight words and that she was doing "lots and lots of writing [about].. *The Lion King*, the zoo, lots of stuff" (interview three). She was also able to discuss the content of a reader about the weather in her book bag, rather than focusing on the word level information in her familiar books as she had done in our previous interviews. Georgia felt that she had improved at reading "a little bit at the start of words", and was also able to identify things that were still difficult, like "trying to figure the [more complex] words out" such as authors' names and longer words. Her goal was to get better at "sounding the words out", and Georgia explained that if she were the Reading Recovery teacher, she would "just help them sound it out, I would say 'sound it out, try to do it!'" (interview three).

6.1.2.2.3 Affective changes

In the first two sets of interviews, all adult participants reported that Georgia could be very reluctant to engage in formal literacy tasks, and avoided these where possible. Georgia herself gave minimal, non-committal responses to questions about her reading and writing, and when asked about Reading Recovery stated that she thought it would be improved by "get [ting] lollies and ice cream" as rewards (interview two).

Amy, Kathryn, and Maria believed that Georgia enjoyed Reading Recovery, though Amy noted that she was also conscious of her literacy difficulties:

She loved Reading Recovery. I think she really enjoyed it. But I think then in saying that she felt like she was missing out on school at the same time. It didn't seem to bother her too much but she said something once or twice. But yes, just, it's heartbreaking watching her know she's behind everybody else (Amy, interview two).

At the final interviews, Georgia was feeling happier and more confident about reading at home and school, was excited to receive new words to practise at home, and was exhibiting avoidance behaviours less frequently. Both Amy and Maria believed her improved confidence was an outcome of her literacy skill improvements, and Maria predicted that:

..as she's becoming more successful I think she's finding she's more able to remain on task. So with her writing because she's encountering more success, she's more willing to sit and concentrate and do it. So yes, I'm predicting that as she improves her skills, she'll find she won't need to be as evasive with her tasks (Maria, interview three).

6.1.2.2.3   Literacy practices

Georgia reported engaging in many literacy practices, such as taking selfies with her mother's phone, baking with her grandma, and making a list for Santa. She reported engaging in 20 practices at time one, 19 practices at time two, and 14 practices at time three, stating at our final interview that she no longer read menus, helped outside, used her mother's mobile phone, or read other books. I noticed that Georgia tended to discuss very recent practices, and, wondered whether she may not have recalled more distant activities.

Figure 6.5 shows Georgia's reported literacy practices at July, 2015, with plus and minus symbols indicating changes in engagement and/or positivity since December 2015. Illustrative examples of her literacy practices are shown in italics.

She does that once a week for our family shopping (Amy, Int 3).

She plays her reading eggs games and she plays other games where she has to build things up (Amy, Int 3).

At free time I do lots of drawings and writings (Georgia, Int 2).

She does like taking part in games.. Guess Who, the kits I have in the room for literacy, the felt boards (Kathryn, Int 2).

Yes! I take photos of myself! (Int 3)

"I think she's getting more enjoyment and can spend more time pouring over a book, but I don't think she chooses to go and get books" Kathryn, Int 2).

Boring because somtimes I ohh don't want to do my reader (Georgia, Int 3).

Positivity — Positive / Neutral / Negative

Make lists
Magazines
Junk mail -
Signs -

Library
Cooking -
Craft -

Tablet +
Own writing +
Listen to story

Board games ++

Labels -

Camera + -

Read school book -

Monthly or less — Weekly — Daily or more

Frequency

+ Practices increasing in frequency or positivity.or both.

- Practices decreasing in frequency or positivity.

++ Practices increasing in both frequency and positivity.

+ - Practices increasing in frequency and decreasing in positivity or vice versa.

Figure 6.5. Georgia's reported literacy practices in July 2015, showing changes in engagement since December 2014.
Larger font indicates more frequent and positive practices. Illustrative quotes from Georgia, her mother, and teacher offer examples of these practices.

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Figure 6.5 shows the practices Georgia engaged in frequently and enjoyed most were using a tablet, listening to stories, and doing her own writing. All participants agreed that Georgia enjoyed writing for a social purpose, such as creating cards for people or retelling special events. Georgia's reported increase in doing such writing appeared to be linked to her progress and increased independence in this area.

Georgia reported feeling good or excellent about many of the practices she engaged in, and neutral about some. The only instance when she used a negative rating was her feeling towards reading a school book in her final LPQ. She reported feeling not very good about this activity, explaining that it was "boring because sometimes I ohhh don't want to do my reader" (interview three). I found this an interesting response as it was made at a time when Georgia had made pleasing progress in her reading, and when Maria and Amy believed that she was feeling more positive about reading. Georgia reported that she did not read other books, though Kathryn and Amy explained that she looked at and listened to other books at school and at home.

Kathryn gave many examples of the ways in which Georgia used literacy at school, for example: listening to stories; playing literacy games on an iPad; creating scenes with the felt boards; and playing Guess Who. Kathryn noted that whilst Georgia did enjoy looking at books; if she was given a range of options, she would usually do another activity. Amy had noticed that Georgia was now reading words and signs out in the community. She also described Georgia's passion for art and craft, identifying this as her favourite activity, and explaining:

> She's very particular.. it'll take her hours on end to do one thing, cause it has to be perfect, so, she loves it.. We did paintings over the holidays on the porcelain things and it took her so long to do this one little thing because the colours had to be in the right lines of the cat whiskers so she was very particular about that (Amy, interview three).

6.1.2.3 Enabling and constraining factors

Figure 6.6 maps the influence of the six factors on Georgia's literacy development through and beyond her participation in Reading Recovery.
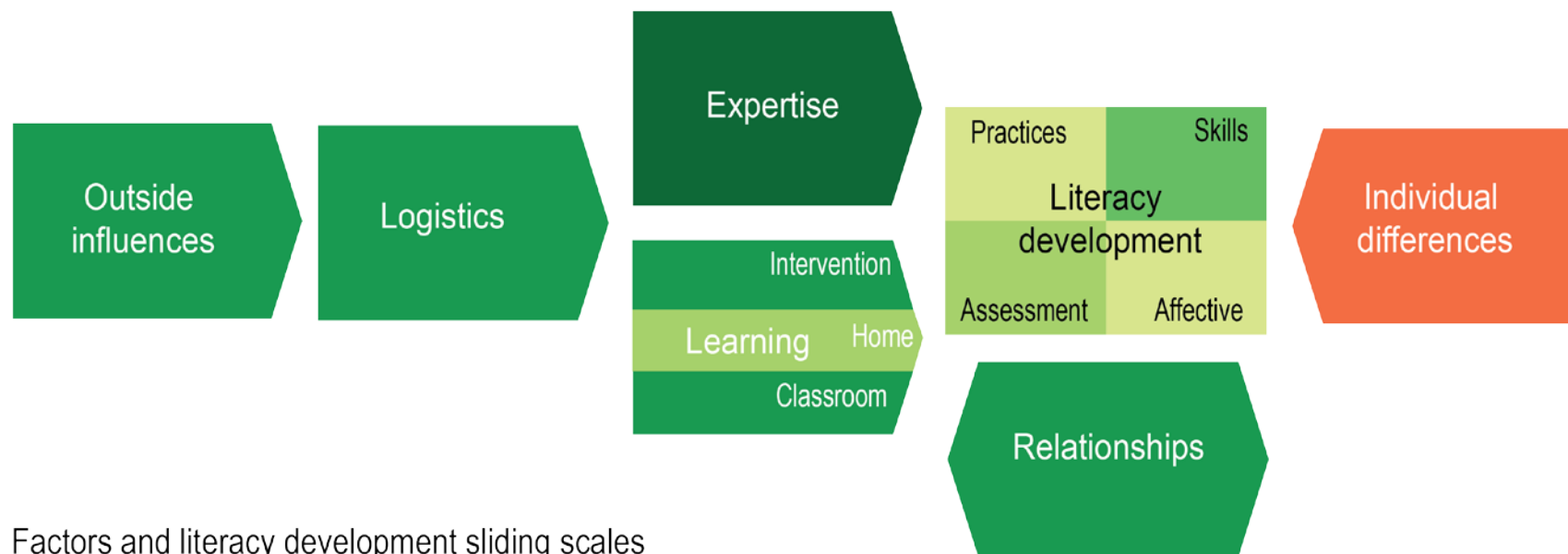
Factors and literacy development sliding scales
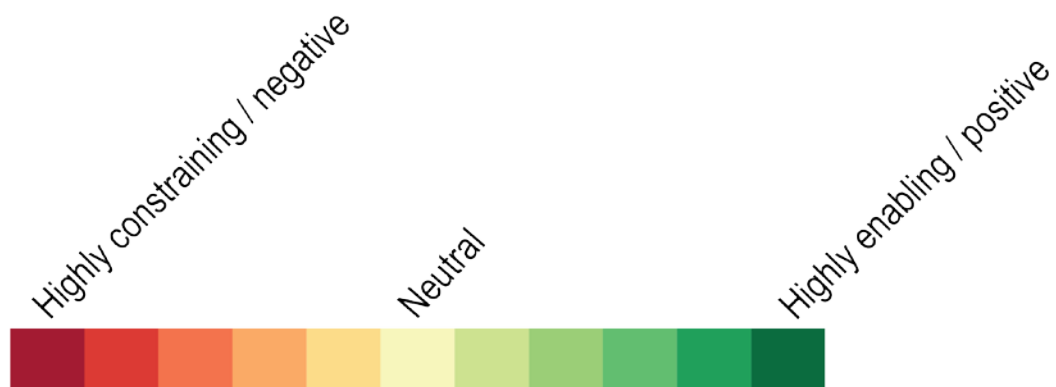
Figure 6.6. Situated model mapping the factors enabling and constraining Georgia's literacy development through and beyond her participation in Reading Recovery.

Figure 6.6 shows that outside influences—in particular, CEOM policies—were an enabling factor for Sacred Heart School's literacy intervention implementation. As discussed in the previous chapter, CEOM nominated Reading Recovery as its early literacy intervention, and provided funding for its implementation in CEOM schools. These outside influences made a positive contribution to Sacred Heart's school-level intervention logistics, for example by tagging funding not only for Reading Recovery, but also for school wide literacy leadership and the ongoing monitoring of students with literacy difficulties.

These outside and logistical factors enabled sustained expertise, and specialist literacy learning to occur, at Sacred Heart School. Georgia's learning at school was facilitated by: a trained and experienced Reading Recovery teacher who also worked as literacy leader and coach across the school; an experienced classroom teacher who taught Georgia in prep and year one; and a highly qualified teacher aide. In addition, when Georgia did not make expected progress, additional experts from CEOM and the community were consulted. Expertise and learning are therefore shown as highly enabling factors for Georgia's literacy development.

At an individual level, Georgia exhibited early difficulties with reading, memory, and processing. Her parents also have histories of literacy difficulties. Georgia experienced health difficulties which resulted in absence from school and general malaise, and was prescribed glasses by a behavioural optometrist. In addition to, and quite possibly related to these cognitive and medical challenges, Georgia exhibited attitudinal and behavioural traits such as being easily distracted, avoiding tasks, and becoming frustrated. Georgia's individual differences are shown as being quite constraining.

The learning in Reading Recovery focused on Georgia's areas of literacy challenge. Georgia continued to participate in the classroom literacy program whilst in Reading Recovery, and often engaged in her home reading practice (the degree to which is unsure as her parent and teachers reported different understandings here). The combination of intervention, classroom, and home learning did support Georgia to make literacy progress, but at a slower than hoped for pace.

At the conclusion of data collection for this thesis, Georgia had made positive improvements in her literacy learning, and was reading at a level close to that expected for students half way through year one in a CEOM school. She was feeling more positive about engaging in most literacy tasks, had made observable improvement in a number of skills, and had made particularly pleasing progress in writing. She still preferred practical,

digital, and oral literacies, would rather be read to than read to herself, and was not positive about reading school books. Her writing showed evidence of an increase in complexity, and she was using her improved reading skills to access environmental print in the community. Her improvement in instructional text level did not appear to have influenced her self-selected book choices.

All adult participants in Georgia's case study were pleased and surprised at her literacy progress in term two of 2015, and offered a number of explanations for her continued literacy development. Maria attributed this improvement to Georgia having recovered completely from her tonsillectomy, and putting into place what she had learned in Reading Recovery:

> And in Georgia's case it was just sitting there dormant in the back of her mind and when she went back to the classroom she had the time to digest all she'd learned and she seems to have put those things into practice now and she's demonstrating them back in the classroom and she's experiencing progress and success in the classroom (Maria, interview three).

From Amy's perspective, the collective and supportive approach of the school and family working together were what had enabled change. My own observations based on my interviews with Georgia were that she had also matured by her final interview, for example, she was able to answer questions more thoughtfully than in the earlier two interviews.

So how might Georgia fare with her future literacy development? In her own words: "I <u>do</u> not <u>know!</u>" (interview two). Amy and Maria both discussed the possibility of Georgia continuing to experience literacy difficulties, and were aware of the importance of: ongoing practise at home and school; structured and explicit teaching; continued communication between all teachers and aides working with her; and monitoring her progress regularly. Everyone involved in Georgia's learning was more concerned that she continues to make progress, and to be engaged with literacies, rather than necessarily meeting year level benchmarks.

6.2   Intervention in the middle years of school
6.2.1   Finn

"We have struggled from day dot" (Kirsty, Finn's mother, interview one).

Table 6.4

Participants and background information for Finn's case study

Setting	Sandy Bay School		
Year level	Three and four		
Age at first interview	Nine years, seven months		
Intervention	Literacy Support		
Person	Role	Interviewed in:	
		12/2014	04/2015
Finn	Case study student	●	●
Kirsty	Finn's mother	●	●
Karen	Finn's year three Literacy Support teacher, terms one-three	●	
Beth	Finn's year three Literacy Support teacher, term four	●	
Linda	Finn's year four Literacy Block teacher		●

Finn was a year three student at Sandy Bay School when I first interviewed him in in the fourth term of 2014. He was a quietly spoken interviewee who became more animated when discussing his preferred practical, arts-based, and technological literacies. Finn is passionate about performing and loves to create magic shows to perform in public.

Finn has a long history of struggling to learn to read, and has accessed interventions and support services in the past, including a behavioural optometry program in his early years at school, and a home-based repeated reading program in year two. Some early interventions had been more helpful than others, for example, his mother Kirsty described his behavioural optometrist exercise program as being traumatic for Finn and causing more damage than good. Conversely, she explained that the home repeated reading program— suggested by the school—was a success, turning around Finn's willingness to read and enabling him to feel confident.

Finn was assessed by the DEECD/DET regional psychologist in year two, who found that:

> There were some delays with his learning. Now he didn't qualify for a label, he's not anything, he just struggles with a bit of memory retention sort of stuff, and he learns very differently. So he's a very bright kid but it's all hands on and in his brain. So he dreams up the most elaborate machines and can make them, and you

know, he's very hands on with Dad in the shed and all that sort of stuff. But the theory behind having to sit down and actually read, that was what the issue was (Kirsty, interview one).

When Finn was identified for participation in Literacy Support at the beginning of 2014, he was reading at PM Benchmark (Smith et al., 2009) reading level 12, approximately one and a quarter years below the expected level for a student at the end of year two in the Victorian Government school system ("Benchmark ready reckoner", n.d.). He could identify the names of 49/52, and the sounds of 36/52 letters, and read 79 of the 100 most common sight words.

In the Royal Children's Hospital Auditory Processing Assessment (Rowe, Pollard, & Rowe, 2006), Finn demonstrated highly divergent abilities in sentence and digit processing. He could repeat sentences of up to eight words, scoring below the 10th percentile for his age, and demonstrating the sentence processing ability of an average prep student. However, he could repeat series of up to six numbers, scoring at the 95th percentile, well above the norm for his age for digit processing.

In the SPAT-R test (Neilson, 2003) he scored 34/60, placing him at the 10th percentile for his year group, and demonstrating critically serious difficulties in phonological awareness and processing.

6.2.1.1 Learning

In 2014, Finn's primary literacy instruction context was the years three and four Literacy Support class, which he participated in for 100 minutes per day, four days per week with 14-15 other year three and four students. This class was taught by Karen in terms one to three, and by Beth in the fourth term. Finn engaged in other literacy learning activities across his school day, for example, in our second interview he shared he had been learning about the ANZACs[11] in his home-group classroom. However, as with David's case, detailed information about Finn's school-wide learning was not collected due to time and organisational constraints.

The learning program in Finn's Literacy Support class focused on: decoding, fluency, and comprehension in reading; as well as spelling; writing; and speaking and listening. Skills were taught explicitly, and the different modes of literacy were linked. An oral language component focused on students discussing and explaining their learning. Groupings within

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[11] The Australian and New Zealand Army Corps (ANZACs) are commonly studied as a history topic around ANZAC day (25th April) in Australian schools.

the class changed depending on the focus of the learning. Beth described the Literacy Support class as a safe place for Finn, in which the learning was predictable and achievable, and where he could be successful. When asked about his experiences in the Literacy Support class Finn said "I've had fun", and went on to say that he likes working with people and that all the teachers are nice (interview one). He couldn't think of anything he would like to change about Literacy Support.

In 2015 Finn was no longer in the Literacy Support class, and had been placed in the second to bottom class of four streamed Literacy Block classes across years three and four. His teacher Linda explained that there had been multiple interruptions to the year three and four Literacy Block program in term one, resulting in only 11 sessions occurring across the term. Linda described how, in these sessions, she used big books to demonstrate genres and to model strategies to the class, with students then practising the new content. At the time of my second visit at the beginning of term two, Linda had not yet resumed teaching her Literacy Block class as some home-group classes were preparing for their upcoming NAPLAN assessments. Based on her observations in the sessions in which she had taught Finn, Linda believed that he preferred hands-on and visually aided learning.

Kirsty pointed out that "We are parents that get him to read and are involved in what he's doing" (interview one). She explained that both she and Finn's father support and encourage him to use literacy in a range of ways, regularly engaging in home reading practice with him, and requiring that he use reading and writing to access and create everyday texts, including those related to his preferred literacy practices. In term four of 2014, Finn also participated in private tutoring funded by his parents. Whilst he was on a break from this additional support at the time of our interviews in 2015, Kirsty explained that they were planning to reinstate this tutoring once his tutor had returned from overseas. She also alluded to making an alternate choice for Finn's schooling in the future in order for him to access extra help with his learning. Kirsty noted that she would like to be more involved with literacy in the school, and suggested that parent volunteer programs were one method by which schools could offer interventions without the financial challenge of funding them.

Relationships and communication between home and school were reported to be extremely positive in 2014, but appeared to be more complex in 2015, and Kirsty and Linda were not in agreement about how Finn was faring with literacy in our interviews in April, 2015. Kirsty stated that "I think he's doing ok, the teacher that's got him for literacy, she feels he's doing well, and doing what he should be, so yes, that's all I've got to go on," though

later clarified that "I don't believe he has moved forward any since he stopped [being taught by Karen]" (interview two). However, Linda was less positive, observing that "reading—he is below.. coming up from last year I don't believe he has moved up an awful lot". Kirsty seemed aware that there may be a mismatch of understandings, noting that: "it's quite difficult to pin a teacher down that can tell you.. whether they are moving forward" (interview two).

6.2.1.2 Literacy development

6.2.1.2.1   Assessment data
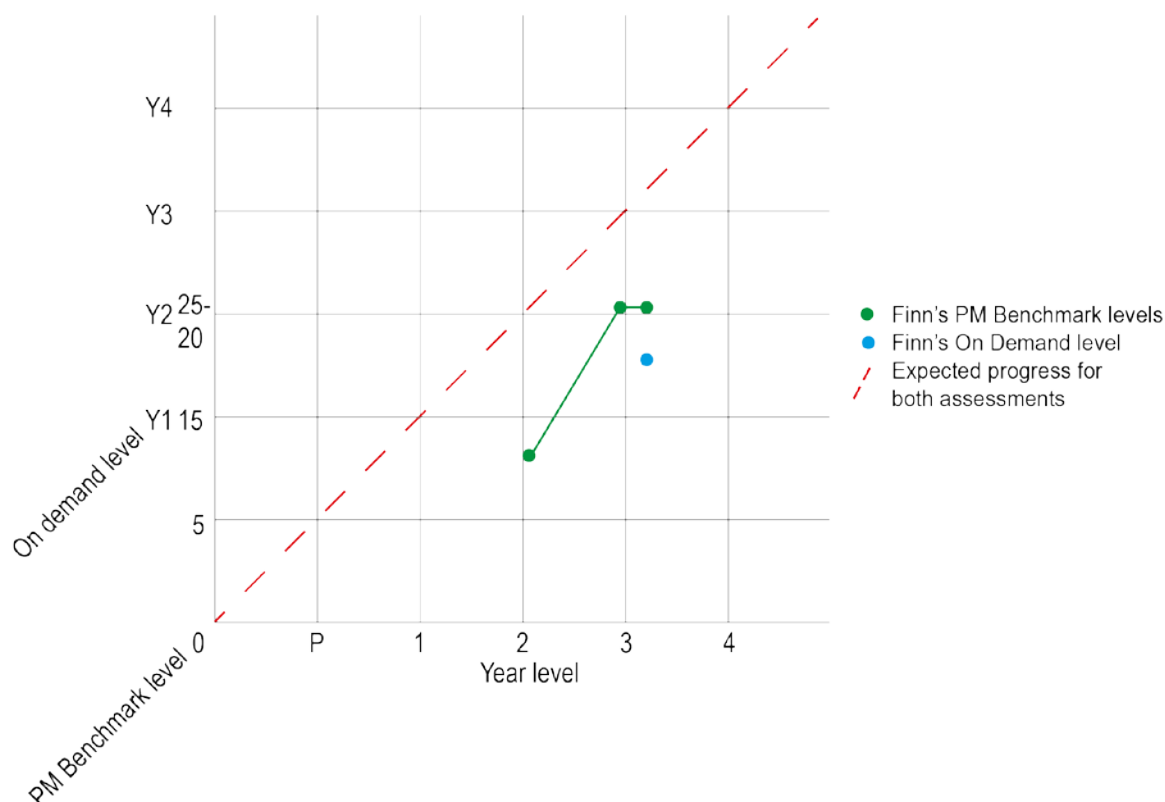
Figure 6.7. Finn's PM Benchmark and classroom reading text levels at the beginning, end, and one term after completing Literacy Support, and On-Demand comprehension level one term after completing Literacy Support.

In 2014, Finn's PM Benchmark (Smith et al., 2009) instructional reading book level progressed from 12 to 24[12], meaning that he had made approximately one and a quarter years' growth in reading book level over that time, according to information on the Victorian DET teachers' website. When I visited in April 2015, Finn had not yet been assessed again using the PM Benchmark, and was reading at approximately level 24 in his Literacy Block class. He had recently sat a Victorian On Demand Reading Comprehension

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[12] A level which the PM Benchmark resource suggests is age appropriate for a nine year old (Smith et al., 2009), though information for Victorian Government teachers ("Benchmarking ready reckoner", n.d.) recommends that students should have a PM Benchmark level of 20-25 by the end of year two, at which point students are usually aged between seven years, eight months, and eight years, eight months. Figure 6.7 uses these Victorian Government recommended levels to plot expected progress.

test (Victorian Curriculum & Assessment Authority, n.d.), and had scored poorly on this measure, demonstrating the comprehension of a student halfway through year one.

6.2.1.2.2 Observed changes in skills and behaviours

Finn felt that he had improved in many aspects of literacy over 2014, including reading and doing paragraphs, but also commented that there was nothing he found easy about reading and explained "sounding the big words out, that's a bit difficult" (interview one). In our first interview I observed that Finn took some time to process and respond to my questions and also found it difficult to remember things such as the title of a book he had enjoyed.

Beth listed a number of literacy skills in which Finn had improved, including fluency, decoding, and speaking and listening; whilst being clear that he continued to find comprehension and spelling challenging.

> He definitely has come a long way this year.. his reading is pretty good, he is fluent, but he's still really just decoding so we're working on his comprehension skills and making sure that he's actually paying attention to what he's reading. His broader literacy, he really struggles with his spelling, and remembering the different blends that make the different sounds, and his writing, we're trying to get him to write.. for meaning.. to get him to write two or three really good sentences. His speaking and listening is really good (Beth, interview one).

From Kirsty's perspective, the Literacy Support program's explicit teaching had enabled Finn to learn the rules of written English. She observed that Finn still tended to glance at words and guess them rather than reading them, but was generally very positive about the changes she had observed in Finn's reading over 2014 (interview one).

One term later, in April, 2015, Kirsty felt that Finn's literacy progress had stalled. She noticed that he was asking for help to read things before attempting to read them himself, and that he continued to guess words rather than decoding them. At school, Linda noted that Finn read reasonably fluently but that he had difficulty in comprehending what he had read, particularly when inference skills were needed. Finn himself gave longer and more complex answers to my questions in our second interview, and felt that he was doing well in reading at this point, though could not elaborate on specific improvements he had made.

6.2.1.2.3 Affective changes

> Finn is now a lot more confident. He'll read any sort of text, willing to give anything a go. And he recognises when something's too hard. So if it's tricky, he will try strategies we've talked about in class. But if a word is too tricky he will

ask. But not, with Finn it was originally just ask, not even have a go when now he's actually having a little bit of a go so that is an improvement for him. (Beth, interview one).

Beth and Kirsty agreed that Finn's confidence and motivation to read had improved across 2014 and observed that Finn had shifted from avoiding, to offering to engage with print literacy tasks, including initiating reading to his parents at home.

In our second interview, Kirsty explained that Finn had experienced an improvement in life-wide self-esteem, in part through his success as a magician in the community. She noted that: "I think since the last interview, Finn has actually matured a little bit.. he's gained confidence in himself.. So he appears a lot more at ease with who he is, and what he's capable of". Finn described how he felt more confident and positive about reading in our second interview, saying that "I think I'm going better than all the other years."

Linda offered a different perspective, noting that she had noticed Finn exhibiting some avoidance behaviours in Literacy Block classes. She observed that "he is a very active little boy who would rather muck around than work", though went on to explain that with close monitoring and praise Finn was more likely to engage with literacy tasks in class.

6.2.1.2.4   Literacy practices

Finn reported engaging in 17 of the 21 practices in his first LPQ, and 16 in his second, explaining at this point that he had started to engage in directed writing and reading signs, but no longer read labels or magazines, or used his Wii. Beth pointed out that informal texts like labels and magazines were part of their Literacy Support class's year three NAPLAN reading preparation, and it is possible these were no longer an explicit part of Finn's literacy program in 2015.

Finn gave considered responses and detailed examples when responding to the LPQ. He did not use any of the negative categories on the positivity scale, using neutral as his lowest response.

Finn's LPQ data from our second interview in April 2015 is summarised in Figure 6.8, with illustrative quotes, including those from other participants' LPQs, providing specific examples of his uses of literacies.

For his magic he will. His Dad insists that he has a running list when he does his magic shows. So he will write his list and the spelling's always atrocious so he will then get us to write it out neatly with the spelling [correct] (Kirsty, Int 2).

He was able to tell me how much the Ipads were in the Big W catalogue so he'd obviously found it and read it Kirsty, Int 2).

He's typed up one of his stories. I think he's very happy, it's hands on and he loves it (Linda, Int 2).

Lately we're building a garden. We made our garden frames.. it's about that high with soil and dirt and capsicums in it.. there's wire around it so nothing like rabbits can get in (Finn, Int 2).

The signs that I see, yes I do read them. But that is if there is enough time to read them (Finn, Int 2).

Positivity

Excellent — Cooking / Board games — Craft — Working outside +

Good — Camera - — Library + / Mobile phone + - / Read other book + - — Own writing / Directed writing / Listen to story

Neutral — Making lists — Junk mail / Computer - - — Signs / Read school book + -

Frequency: Monthly or less — Weekly — Daily or more

+ Practices increasing in frequency or positivity.

- Practices decreasing in frequency or positivity.

- - Practices decreasing in both frequency and positivity.

+ - Practices increasing in positivity and decreasing in frequency or vice versa.

Figure 6.8. Finn's reported literacy practices in April 2015, showing changes in engagement since December 2014. Larger font indicates more frequent and positive practices. Illustrative quotes from Finn, his mother, and teacher offer examples of these practices.

Figure 6.8 shows that the practices Finn reported engaging in daily and feeling good or excellent about were working outside, doing his own and directed writing, and listening to stories. He particularly enjoys manual, practical activities and craft and often uses the support of adults or technology to mediate the print demands of these practices.

Finn's favourite activity—magic—integrates a range of literacy practices and events, for example, in order to learn new tricks for his magic shows Finn watches clips on youtube, and uses its predictive typing function to enter search phrases. He watches clips multiple times, practices the steps, and films himself in order to see how he looks. Kirsty pointed out that Finn has large quantities of books about magic, but that he does not refer to them very often as he cannot read them himself, whereas his method of learning tricks from youtube enables him to be independent. Whilst magic is predominantly a visual, oral, and gestural practice, when performing in public Finn's father requires that he writes a running list for his show, which his parents then help him to correct.

Finn and Kirsty also described how he works in the shed with his father, and, at the time of our second interviews, explained that he was engaged in stripping down and selling scrap metal in order to save up for an iPad, the cost of which he had checked in the Big W catalogue. Finn, Kirsty, and his teachers discussed how Finn had a range of purposes for writing, including keeping a dream journal, writing a Christmas song, and reporting on his weekend activities.

Finn prefers reading books that: can be read in one sitting; have not too many words on the page; have some pictures and visuals; and are funny. Kirsty explained that she supports Finn's book selection in the school library by visiting earlier and choosing a range of manageable and interesting texts which Finn then selects from, sharing that:

> He was struggling a little bit to choose the books because, maybe the other kids were going and getting more advanced books. So I think that's actually working really well because he's just going in and getting the book, bringing it home and succeeding (Kirsty, interview two).

In our first interview Finn could not remember the title of a book he had read recently, whereas in the second he described a book he was enjoying: *Mary the Big Brown Hairy Spider* (Lee & Gamble, 2004)—a short, illustrated beginning chapter book described by its publishers as being levelled for children aged five to eight (Scholastic, n.d.b).

In 2015, Finn reported that he was reading school and other books more frequently but felt less positive about doing so, though interestingly later in the interview, stated that reading was getting easier. Kirsty offered a different perspective, observing that Finn was becoming increasingly reliant on adult support to read signs and environmental print whilst out in the community.

Whilst Finn engaged in a range of contextualised literacy practices, he often required adult or technological support, or texts designed for much younger children, in order to engage in print literacies. He did appear to be finding ways around his literacy difficulties, for example, through asking for help, using technology, and saving for an iPad to use as a supportive device. He did not appear to have increased the complexity of print literacy texts he was able to read and write in the classroom or at home from the first to second data collection phase for this study.

6.2.1.3 Enabling and constraining factors

Figure 6.9 maps the influence of the six factors on Finn's literacy development through and beyond his participation in Literacy Support.

Expertise

Outside influences

Logistics

Intervention

Learning   Home

Classroom

Practices   Skills

Literacy development

Assessment   Affective

Individual differences

Relationships

Factors and literacy development sliding scales

Highly constraining/ negative

Neutral

Highly enabling / positive
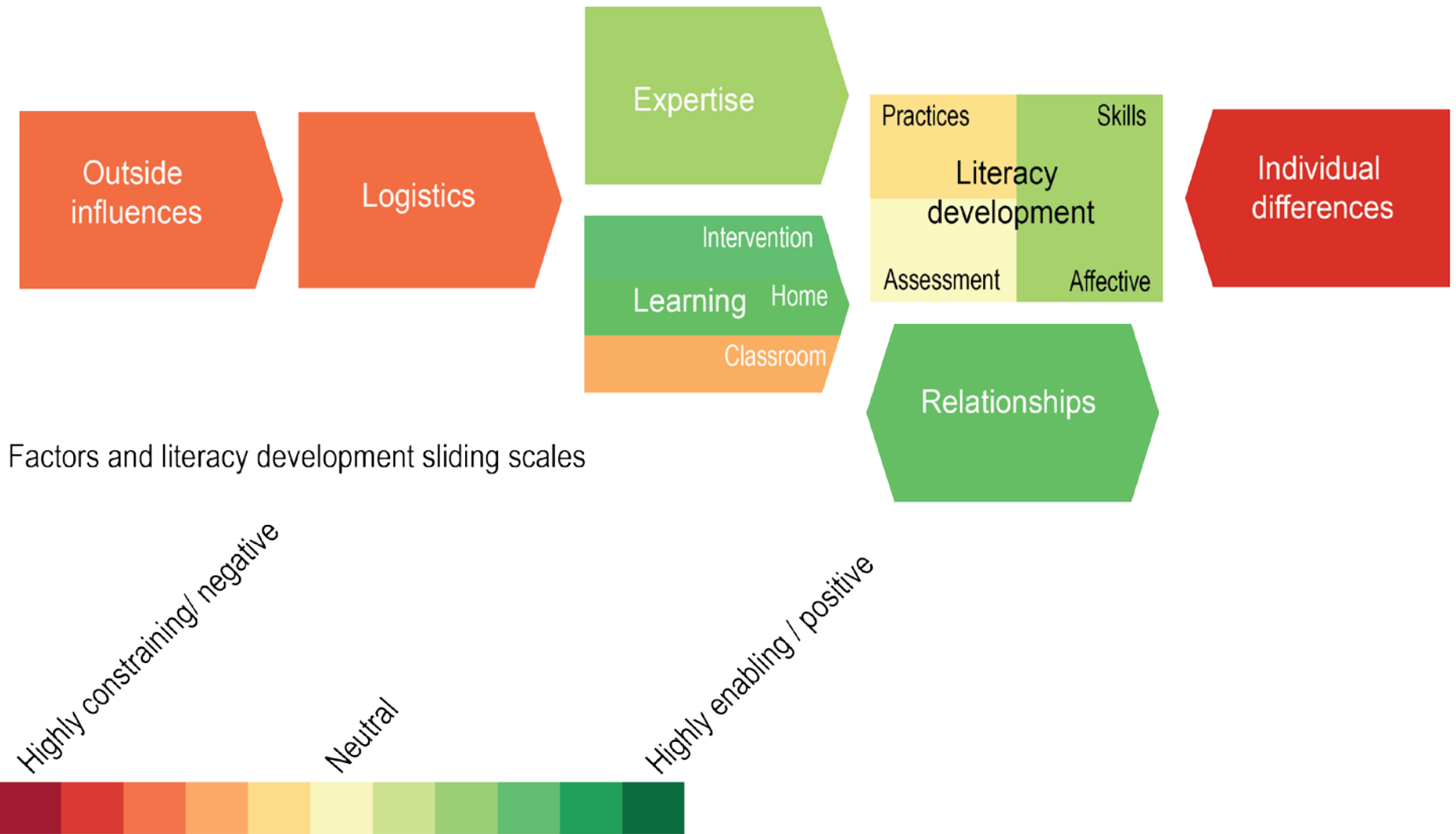
Figure 6.9. Situated model mapping the factors enabling and constraining Finn's literacy development through and beyond his participation in Literacy Support.

Figure 6.9 illustrates the influence of the wider, school level, and individual factors in the situated model on Finn's literacy development. As in discussed chapter five and in David's case narrative, the outside influences and school-level logistics at Sandy Bay School meant that literacy interventions were offered intermittently, and the provision of Literacy Support in 2014 posed financial, practical, and staffing challenges for the school. These relatively constraining factors impacted on the expertise and learning available to support Finn's literacy development.

Expertise supporting Finn's learning included a qualified and experienced Literacy Support teacher in terms one to three of 2014, school wide literacy coaching in term four of 2014, and a private tutor in term four of 2014. Finn had also accessed specialist advice and assessments from a psychologist and a behavioural optometrist. None of these experts supported Finn for a period longer than three school terms. Whilst most of these experts were described as making a positive contribution to Finn's learning, the lack of continuity meant that their impact was only mildly enabling.

Finn participated in a targeted and intensive Literacy Support intervention in 2014, which focused on skill development across a range of literacy activities, and he also engaged in a range of literacies at home and school. Literacy Support and the consistent parental support Finn received at home are shown as enabling influences. However, Finn's formal literacy learning was less consistent in 2015, as there were interruptions to his school literacy instruction, and he was no longer receiving private tuition. The classroom interruptions are depicted as a mildly constraining influence on Finn's learning.

Finn was supported by very positive relationships with Karen—his Literacy Support teacher, other staff and students at Sandy Bay, and his parents, who were highly involved with his learning and interests. Overall, relationships in Finn's case study appeared to be enabling, with some challenges emerging regarding collective understandings of, and communication about, Finn's literacy achievement in 2015.

At the individual level, Finn exhibited pronounced literacy difficulties which had been evident from school entry. Individual differences in Finn's learning were identified in his pre-intervention assessments, and through his assessment with the regional psychologist.

The school and individual factors discussed above converged to facilitate mixed literacy development for Finn. Positive changes included growth in a number of literacy skills, and improvement in instructional reading text levels in 2014. The assessment tool used to measure Finn's reading progress in 2014 was a PM Benchmark running record (Smith et

al., 2009), which demonstrated that Finn had made good progress in the level of texts that he could read aloud to a teacher. When Finn sat an independent comprehension assessment, he demonstrated a much lower level of competency, and despite improving his instructional reading text level in 2014, Finn did not continue to make progress in his new Literacy Block classroom environment. His LPQ data suggested that he was not yet able to do more with print literacy in his daily life, and Kirsty believed he was becoming less independent at using print literacy to tackle everyday tasks. Whilst Finn gained in reading confidence and motivation through participation in Literacy Support, he reported decreased positivity towards reading books in our final interview.

Figure 6.9 identifies outside influences, logistical considerations, classroom learning, and individual differences as factors constraining Finn's literacy development. From Kirsty's perspective, the cessation of Literacy Support was the key constraining factor. She observed that Finn's literacy development dropped off once Karen—the Literacy Support specialist—was no longer teaching him, and noticed that tangible signs of support, such as bringing home sight words to practise, also ceased at this point.

At the conclusion of data collection for this thesis, Finn's future print literacy prospects appeared unclear and of concern. At both interviews, Kirsty voiced her perspective that long term specialist support was needed, and was critical of the lack of assistance for intervention programs in Government schools. She maintained:

> And I can see that with permanent literacy support I would feel very confident that he would leave primary school with the skills, not necessarily what everyone else has but with the skills that would make it easier for him. But I am really concerned, my husband and I are really concerned that that's not going to be the case.. So we have spoken to the school and we're just going to have to make some decisions by the end of next year as to whether we continue here, whether they can offer him what he needs for high school because you know this being such a crucial year for him, if he's not sort of where he needs to be we're going to have to make some decisions for [years] five and six (Kirsty, interview one).

6.2.2 Oliver

> I guess you could sort of say I was cheating in my book, cause I didn't understand reading that much (Oliver, interview two).

Table 6.5

Participants and background information for Oliver's case study

Setting	Sacred Heart School		
Year level	Three and four		
Age at first interview	Eight years, six months		
Intervention	Reading for Life		
Person	Role	Interviewed in:	
		12/2014	04/2015
Oliver	Case study student	●	●
Rhonda	Oliver's mother	●	●
Debbie	Oliver's year three and four classroom teacher	●	●
Paula	Oliver's Reading for Life tutor	●	

Oliver was a year three student at Sacred Heart School at the time of our first interview in December 2014. He is from a military family who live a busy, outdoors life. He was a confident and articulate interviewee who was keen to discuss his recently found interest in reading and books, and offered sustained justifications and vignettes rather than short answers to my interview questions.

When Oliver started at Sacred Heart School at the beginning of year two, he was reading at Alpha Assess (2007) text level 14, approximately five months below the CEOM benchmark level for the end of year one. His Burt word test (Gilmore et al., 1981) score was 28 (6.06-7.00 years), suggesting that his word reading skills were at an age-appropriate level. Oliver was provided with some extra reading sessions from his classroom teacher at this point.

In addition to this classroom support, Oliver participated in the Reading for Life program in two consecutive years: in 2013 as a year two student; and again in 2014 when he was in year three. When Oliver was first offered this intervention opportunity, his mother Rhonda hoped that this would support him to improve in, and get more enjoyment out of, reading.

Debbie—Oliver's year three and four classroom teacher—noted that Oliver had been a hesitant reader with few word attack strategies, stating: "If it's a new word, an unknown word, he just sort of clams up and just waits for someone to tell him what it is" (interview

one). She also commented that Oliver did not persist with challenges across the curriculum, and had difficulty in organising himself to work independently.

Debbie explained that Oliver was one of a complex and busy class that included students with additional funding for special educational needs, as well as gifted students. Oliver himself explained that he used to "fake read" and "distract other people" during reading time at school (interview two). He found "hard words" the most challenging part of reading and had difficulty concentrating when there was noise in the classroom and at home (interview one). Oliver was prescribed glasses by a behavioural optometrist during year three, though during our second interview Oliver explained that he was no longer wearing these as he had found they were not helpful.

6.2.2.1 Learning

At school, Oliver's literacy program included a range of activities including: sustained silent reading; reading a range of texts; reporting text understandings orally and visually; and reading individually to the teacher or to the classroom aide. In his year three and four classrooms, instructional reading groups were ability based for two terms of the year, and mixed ability for the other two terms, enabling targeted instruction with the former, and richer discussions and modelling with the latter. Oliver's specific focus was working on gaining literal comprehension skills before moving onto inferential skills. Debbie described how Oliver was particularly engaged in some integrated topics at school, such as recycling, and had worked hard to create a poster and talk on this topic. At the time of the second interview Oliver had been similarly engaged in a unit on ANZACs—a topic particularly relevant to his family.

Paula was Oliver's Reading for Life tutor in 2014, working through the program manual and set activities with Oliver over the course of his fifteen week intervention. She was extremely positive about Oliver's reading and experienced him as being more motivated and advanced in his reading skills than the other student she tutored. She explained:

> Look I think he's doing brilliantly. I don't think he needs me at all. It was just when he was doing the sight words, which is the first part of the program, he just got the first 200 right, no mistakes. So he'd been in the program the previous year and I think that had really put him in a good space. So he really went ahead in leaps and bounds. I think he's like an old man in a little boy's body, you know, he says amazing things like if I said 'give me another word that sounds like alien', he'd say 'palaeontologist'. (Paula)

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Oliver particularly enjoyed the games-based learning in Reading for Life, and the opportunity to do lots of reading. Debbie affirmed that he and the other students would bring their Reading for Life games to class and play them with their friends, providing a bridge between the two learning settings.

At home, Oliver and his younger brother are encouraged to be active and to play outside, though they also enjoy digital activities. Rhonda explained that, given the nature of her and Oliver's father's work, it was challenging to complete Sacred Heart's expected home reading practice with Oliver. She felt a positive aspect of the Reading for Life program was that it took the responsibility for reading practice away from the parents and into school. She described how Oliver would pursue topics of interest at home, for example, "at the moment he's really interested in ANZACs so he asked me to get some papers and he's doing up a little collage thing with that" (interview two).

Oliver's Reading for Life tutor relationships were reported to be powerful influences on his engagement both with the intervention, and with reading in general. In 2013, Oliver experienced his Reading for Life tutor as "bossy" noting that she was overly directive and corrected his reading errors rather than giving him opportunities to problem solve with unknown words (interview one). In contrast, both Oliver and Paula spoke very positively about each other, with Oliver observing that Paula gave him chances, and strategies, for working out challenging words. All participants in this case study commented on the excellent relationship between the two, with Rhonda explaining:

> The partner that he has had this year was just amazing and Oliver just loved every
> session. Every Tuesday he would say to me 'I can't wait for tomorrow, Mum', and
> Wednesday when I picked him up from school he actually commented and said he
> was really sad and he almost felt like crying because it was his last session with
> Paula, so yeah, he absolutely loved it (Rhonda, interview one).

Relationships between home and school appeared to be well established, with both Debbie and Rhonda commenting on their frequent communication. Debbie remained Oliver's classroom teacher in year four, and so was able to build on her knowledge of his literacy history, needs, and interests.

6.2.2.2 Literacy development

6.2.2.2.1   Assessment data

Figure 6.10 shows Oliver's literacy achievement data from the beginning of 2013 to the end of term one 2015, in relation to the expected levels for students at the end of each school year at Sacred Heart School.
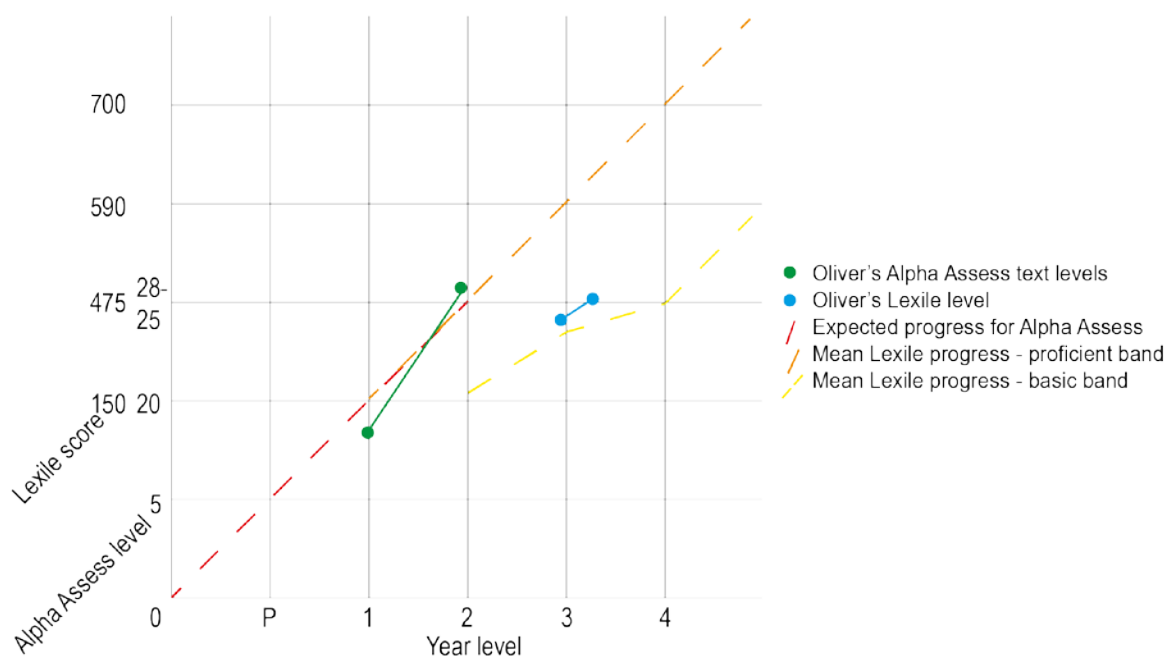
Figure 6.10. Oliver's Alpha Assess text levels and Lexile comprehension scores at the beginning of 2013 to April 2015. These data points show Oliver's assessed achievement before commencing Reading for Life in year two, to one term after he completed his second Reading for Life program in year three.

Figure 6.10 shows that in 2013, Oliver made slightly accelerated progress in his Alpha Assess (2007) text level, moving from level 14 to 28. This meant he caught up to the CEOM target of level 25-28 for students at the end of year two.

In additional school data, not shown in Figure 6.10, Oliver's Burt word test (Gilmore et al., 1981) score showed almost two years improvement during 2013, increasing from 28 to 50 words (8.04-8.10 years).

Oliver's 2013 Reading for Life data showed that he had made 11 months gain in reading accuracy, and nine months gain in reading comprehension in the Neale Analysis of Reading Ability (Neale et al., 1999) over the course of his first Reading for Life program. As these results were reported in terms of gain rather than scores and stanines, they cannot be compared to year level norms and are not shown in Figure 6.10. In additional Reading for Life data, Oliver scored in the average range on both the SPAT-R (Neilson, 2003), and the Reading Self-Concept sub-test from the Self-Description Questionnaire (Marsh, 1990).

Whilst Oliver made positive reading progress in 2013, Debbie and Henry (principal, Sacred Heart) explained that Oliver's reading level had dropped below the upper CEOM target of 28 over the 2013-2014 summer holidays. This drop, combined with sufficient available places in the Reading for Life program in 2014, meant that Oliver participated in this intervention for an additional year.

Figure 6.10 also shows that at the end of 2014, Oliver scored 401 on the Scholastic Literacy Pro Lexile assessment (Scholastic, n.d.a), an independent comprehension measure which he had not scored on at the beginning of that year. This Lexile score placed Oliver within the basic band for a year three student, though as Figure 6.10 shows, he was not yet achieving at a proficient level on this assessment.

Oliver's 2014 Reading for Life data (not shown in Figure 6.10), showed that he had made 12 months gain in reading accuracy and 13 months gain in reading comprehension in the Neale Analysis of Reading Ability (Neale et al., 1999), and six months gain in the York Assessment of Reading for Comprehension—Single Word Reading test (2012). Because these Reading for Life assessments were reported in terms of months gained, it is not possible to compare Oliver's year two and three data. In other Reading for Life assessments, Oliver scored in the high-average range on the SPAT-R (Neilson, 2003) showing improvement on his previous year's result; and in the average range on the Reading Self-Concept subtest (Marsh, 1990)—the same as his previous year's result.

In 2015, Oliver had continued to progress in his school and classroom literacy assessments. At the beginning of 2015, his Burt word test (Gilmore et al., 1981) score was 81 (12.03-12.09 years). In April he scored 477 on the Scholastic Literacy Pro Lexile assessment (Scholastic, n.d.a), showing continued progress in his independent reading comprehension, though remaining within the basic range for his year level.

6.2.2.2.2   Observed changes in skills and behaviours

Oliver explained that he had learned to concentrate in Reading for Life and had improved his strategies for reading unfamiliar words. Debbie had observed a range of improvements, such as: better word attack strategies; more fluent reading; more accurate attempts at spelling new words; increased speed when writing; and more effective reading comprehension. At home, Rhonda had noticed Oliver's improved word recognition and decoding, whilst Paula explained that in Reading for Life, Oliver was now observing punctuation when reading aloud. In terms of what to work on next, Debbie identified that Oliver struggled to give precise instructions and was continuing to hone his comprehension skills.

6.2.2.2.3   Affective changes

> It has been very pleasing to see, almost the switch turn on in his brain, that I can do this" (Debbie, interview one).

> I think he is doing it [reading] more.. and I think he's enjoying it a lot more as well. Like in his time that he has with reading in class, he enjoys that a lot more than what he was before (Rhonda, interview two).

For the participants in Oliver's case study, the most obvious outcomes of his participation in Reading for Life in 2014 were changes in Oliver's attitudes towards reading and literacy tasks. All participants noted that Oliver had increased his enthusiasm for, and confidence and self-efficacy in, reading. They commented that his relationship with Paula was a pivotal element supporting this change, noting that it was during his second year on Reading for Life that he made significant shifts in his attitudes to reading. Paula herself had a very positive attitude to literacy, sharing that: "I love reading! And I think for children to actually enjoy that part of life is a great gift". Oliver described her genuine enthusiasm as being like as disease that he had caught and that he would then be able to pass on to others in the future (interview two).

6.2.2.2.4   Literacy practices

In the LPQ, Oliver reported engaging in 19 practices in each of our two interviews. He had 17 consistent practices, and reported using an Xbox and mobile phone only in our first, and reading labels and menus only in our second, interview. His reported practices included a range of digital, practical, and print literacy activities. Many of his responses and examples reinforced his identity as a reader and reflected his recently found enjoyment of reading books.

In the main, Oliver gave positive responses, with some neutral and one negative rating on the positivity Likert scale. The simplistic nature of this scale posed problems for Oliver at times, for example, when looking at the picture of a menu from a popular fast food restaurant, Oliver said: "It makes me feel a bit sick because it's not very healthy food" (interview two). He also explained he felt "privileged" when he was permitted to use his parents' mobile phones, and that he felt "cheeky" when adding items to the family's shopping list (interview one).

Figure 6.11 plots the data from Oliver's final LPQ, with symbols indicating increasing or decreasing engagement in these practices since December 2014. Examples of Oliver's literacy events are shown in italics.

Graph axes:
- Vertical axis: Positivity (Good / Excellent, Neutral, Negative)
- Horizontal axis: Frequency (Monthly or less, Weekly, Daily or more)

Plotted items:

Magazines - +
Camera
Board games
Directed writing -

Cooking +
Craft +
Library +
Tablet
Labels

Working outside +
Signs +
Read other book
Own writing

Make lists -

Computer
Junk mail -
Read school book - -

Listen to story -

Menus

Quotes:

We're reading the newspaper this week and he's enjoying that.. I can see that he knows how to read a newspaper (Debbie, Int. 2).

Yes, when we go out now I give him the menu to read. He reads things for himself now all the time (Rhonda, Int. 2).

It's an ANZAC project and we have to choose our own ANZAC.. my big Pop was a general (Oliver, Int. 2).

I play games and type things up.. I'm a big fan of Minecraft (Oliver, Int. 1 & 2).

Instead of other people reading to me I like reading by myself (Oliver, Int 2).

Legend:
+ Practices increasing in frequency or positivity.
- Practices decreasing in frequency or positivity.
- - Practices decreasing in both frequency and positivity.
+ - Practices increasing in positivity and decreasing in frequency or vice versa.

Figure 6.11. Oliver's reported literacy practices in April 2015, showing changes in engagement since December 2014. Larger font indicates more frequent and positive practices. Illustrative quotes from Oliver, his mother, and teacher offer examples of these practices.

Figure 6.11 shows that Oliver's preferred practices—those he reported daily engagement in and good or excellent feelings towards—were working outside, reading a book of his own choice, reading signs, and doing his own writing.

A key change in Oliver's literacy practices since commencing Reading for Life in 2014 was his increased interest in and capacity for reading books to himself and others. This shift was reported by all participants in this case study:

> He discovered the Geronimo series of books; that really engaged his reading. So finding a series and an author he liked, he has become a bit more of an avid reader. Mum and Dad said over the holidays, he was consistently reading and wanting to borrow, and that's a whole different child! (Debbie, interview two).

> His Mum said to me he was even reading to his little brother, so I think that's a good sign that he is well on the way. And his grandmother gave him a number of books he was looking forward to reading over the holidays. So I mean they're all good indicators (Paula).

In 2014 Oliver brought *Boyz Rule: On the farm* (Arena & Kettle, 2013) to our interview to discuss. He explained how he liked the layout of the text, and demonstrated how its play-script structure helped him to understand which characters were talking. In April 2015 Oliver brought a longer and more complex text—*Geronimo Stilton: Singing Sensation* (Stilton, 2009) to our interview—and discussed its plot in depth, making predictions about what would happen next in the story and justifying his reasons for liking this series:

> Well when I first started reading them I liked the change because I knew Geronimo Stilton was the author but I also liked the change that he made because he's put his mouse face on there and I like the change between him and the mouse (Oliver, interview two).

Oliver shared that he had additional books that he wished to read, though noted one of his reading goals, the *Harry Potter* series (Rowling, 1997-2007) was well out of his Lexile range.

Some of Oliver's reported changes in literacy practices between December 2014 and April 2015 appeared to be related to literacy growth. For example, his increased enthusiasm for visiting the library was linked to his interests in particular authors, and, though not a change, his continued enjoyment of reading books of his own choice was reflected in this

being a practice he reported engaging in daily and feeling excellent about on both occasions. Interestingly, some decreases in engagement were also linked to literacy growth, for example, Oliver reported decreased enthusiasm for listening to a story during our second interview, explaining that he now preferred to read to himself. He also reported decreasing enthusiasm for, and frequency of, reading school books, noting that he now preferred to read books of his own choosing. His examples for other literacy practices and events revealed that some changes were not related to literacy growth, for example, Oliver reported using a mobile phone and an Xbox in his first LPQ but not in his second. He explained that his cessation of these practices was related to access, as he was no longer permitted to use his parents' mobile phones in 2015, and his family had given their Xbox console away. Debbie explained that now Oliver was in year four there was less emphasis on reading junk mail and magazines in the classroom. As with Finn's case study, these materials were an explicit focus in Oliver's year three class due to their occurrence in the year three NAPLAN reading assessment.

6.2.2.3 Enabling and constraining factors

Figure 6.12 maps the influence of the six factors in the situated model on Oliver's literacy development.

Factors and literacy development sliding scales
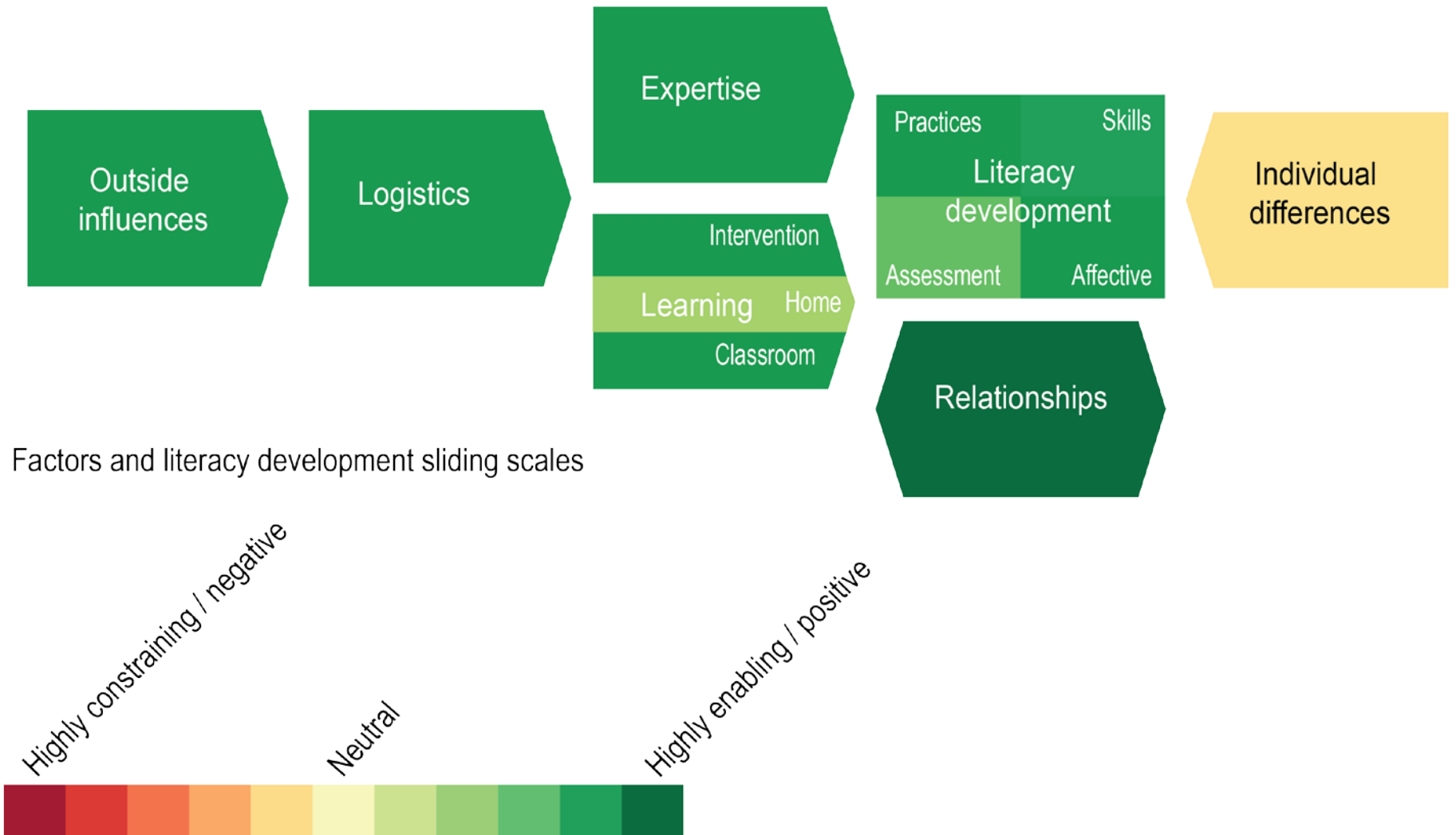
Figure 6.12. Situated model mapping the factors enabling and constraining Oliver's literacy development through and beyond his participation in Reading for Life.

Figure 6.12 shows that, as in Georgia's case, outside influences were enabling factors contributing to Sacred Heart School's literacy intervention implementation. Oliver participated in Reading for Life, which, unlike Georgia's Reading Recovery program, did not feature in CEOM policies or recommendations. However, as discussed in the previous chapter, a broader culture of literacy intervention provision was evident at Sacred Heart, meaning that Oliver was able to access Reading for Life, alongside contextualised learning in the classroom, for two years running. In addition, a clear and comprehensive assessment schedule, partially mandated by CEOM, ensured that his literacy achievement was formally monitored at regular points through the year.

Debbie, Oliver's classroom teacher, and Maria, Sacred Heart's literacy leader contributed expertise to Oliver's classroom learning environment. Learning Links—Reading for Life's developers—also provided expertise through their program development, training of volunteers, and assessment of students. Oliver participated in a broad classroom program with a teacher who knew him very well, and accessed additional skill learning and reading practice in Reading for Life, whilst participating in a range of print, practical, and digital literacies at home. Reading at home to an adult occurred some of the time but was difficult to achieve daily. Positive home-school and student-teacher relationships, together with a particularly good connection with Paula, supported Oliver's literacy development. Expertise, learning, and relationships are shown as enabling factors for Oliver's literacy development, with learning at home a little less strong than these other areas.

In 2013 Oliver exhibited mild literacy difficulties, but these only registered in relation to the higher CEOM end of year one benchmark of reading level 20; as, in Government schools, the end of year one benchmark is level 15 ("Benchmark ready reckoner", n.d.). In 2014, Oliver's reading assessment data suggested he experienced even fewer challenges. However, he showed some affective difficulties in his reluctance to read. Oliver's individual differences are shown as being very slightly constraining.

Oliver made positive progress across each of the four dimensions of literacy development, with particularly noticeable progress in affective changes and personal reading practices. It appears that the combination of improved skills in 2013 and continued practise of these skills in a positive, friendly environment in 2014 enabled Oliver to make sustained and meaningful literacy progress. However, Oliver's most recent literacy assessment data suggested that he was performing at a basic, rather than a proficient independent comprehension level in relation to other students of his age.

All participants believed that Oliver would continue to be a successful reader, through the coordinated efforts of home and school.

6.2.3 Brydie

Earlier on.. I thought, 'when is she going to get there and click on about it [reading] and start?' I was a bit worried (Susan, Brydie's mother).

Table 6.6

Participants and background information for Brydie's case study

Setting	Sacred Heart School		
Year level	Four		
Age at first interview	Nine years, eleven months		
Interventions	Reading Recovery and Reading for Life		
Person	Role	Interviewed in:	
		12/2014	01/2015
Brydie	Case study student	●	
Susan	Brydie's mother		●
Debbie	Brydie's year three classroom teacher	●	
Hazel	Brydie's year four classroom teacher		●
Joan	Brydie's Reading for Life tutor	●	

Brydie was a year four student at Sacred Heart School when I interviewed her and her Reading for Life tutor Joan in December 2014. She regularly helps out at home, reads a variety of media at home, school, and in the community, and enjoys reading books about fairies and girly things. Brydie's case study differed to the others in this research in that it was entirely retrospective, with participants looking back on Brydie's prior experiences in Reading Recovery in 2011, and Reading for Life in 2013. I interviewed Brydie and Joan one year and one term after Brydie had participated in Reading for Life, and returned to interview Brydie's mother Susan, and her year four teacher Hazel two months after Brydie and Joan's interviews. Hazel was Brydie's year five teacher in 2015, and had also taught Brydie in years one, two, and four, so was able to provide a longitudinal perspective on her literacy development. Debbie (Oliver's teacher) taught Brydie in 2013, and, whilst she was not interviewed in depth for this case study, Debbie did provide information about her classroom literacy learning program and Brydie's engagement in Reading for Life in 2013. Maria had been Brydie's Reading Recovery teacher, though she was not specifically interviewed for this case study due to the substantial gap in time between Brydie's Reading

Recovery program and this study. Interview numbers are not used after participants' ideas and quotes as participants in this case study were only interviewed once.

Brydie had struggled to learn to read in year one and participated in Reading Recovery in 2011. She entered this intervention with a reading book level of seven, and was a successful discontinuation from the program after 10 weeks, having made accelerated progress to reach level 16 by the end of her short program. Hazel, her teacher at this time, explained that Brydie had enjoyed going to Reading Recovery and had a positive attitude towards reading, whilst Susan noted that it was difficult to remember back to Brydie's learning in year one. Despite her successful Reading Recovery program, Brydie continued to exhibit some literacy challenges, for example, Hazel observed that in years one and two she "had a very strange way of sounding out words. She'd sort of chunk them and pronounce each sound incorrectly and then when she had to put the whole word back together she got it right." Susan had noticed that Brydie was struggling with reading as she progressed through school, and observed that she wasn't using punctuation when she read.

At the beginning of year three, Brydie's literacy assessments showed that she was reading at Alpha Assess (2007) instructional text level 28, which was age appropriate for a student exiting year two and entering year three in the CEOM system. However, she was not yet scoring on the Scholastic Literacy Pro Lexile assessment (Scholastic, n.d.a), Sacred Heart's independent reading comprehension measure.

6.2.3.1 Learning

Brydie learned in classrooms with well-qualified and experienced teachers. Hazel and Debbie described the ways in which they worked with literacy data, and designed and adapted programs to the needs of their students. Maria was a qualified and experienced Reading Recovery and classroom teacher who was valued for her expertise and specialist knowledge. Joan was a pre-service teacher in addition to her role as a Reading for Life tutor, who had attended the Reading for Life training and was supported by the program materials.

Both Brydie and her brother participated in Reading for Life for 15 weeks across terms two and three of 2013. Susan expressed that she appreciated the additional help her children were receiving at school as she didn't know how to help them with their reading difficulties. She had hoped that Reading for Life would help Brydie and her brother to enjoy reading, as well as to improve their skills.

Brydie and Joan's Reading for Life sessions followed the program manual, and consisted of learning sight words, word study, games to reinforce skills, and reading from a book of Brydie's choice with some discussion to develop comprehension. Joan explained that Brydie's sight word recognition was strong at the beginning of the program, and that "she had good predicting skills and good comprehension about the text once she'd read it." Brydie described how in Reading for Life: "She [Joan] gives you these words, and then you have to, like, sound them out and play with them. And then she gives you these pictures and you have to tell her what the picture's about." Brydie liked reading books to Joan and noted that she would have preferred to do more book reading and less word work.

In the classroom, Hazel and Brydie had worked on the different sounds that spelling patterns make using the THRASS chart (Davies & Ritchie, 1996) and other tools. In 2014 Hazel used the CAFÉ (Comprehension, Accuracy, Fluency, and Expanding vocabulary) reading program (Boushey & Moser, 2014) to support the students in her class, with a particular focus on the accuracy component with Brydie. She identified repetition as an important strategy for supporting Brydie's learning and also encouraged her to widen her reading tastes from "stories and typical girly books" to include information texts.

At home, Brydie completed her Reading for Life homework—which included word games and reconstructing sentences—with her mother and brother. In terms of motivating Brydie to read, Susan believed that it was important to find books that she enjoyed and was interested in reading. She noted that Brydie prefers "girly fairy books", and shared that:

> Her Nana buys her books that are old, you know, the old books, and she isn't interested and won't read them. But we go down to the op shop and she has a look there and we buy all their books from there. So probably just the interests of the kids, if they're interested in what they're learning and reading about then… [they'll continue to be successful readers] (Susan).

Brydie's teacher and tutor relationships were very positive. Joan spoke enthusiastically about Brydie, her attitude to their Reading for Life sessions, and her progress through the intervention. In Brydie's year three classroom, Reading for Life was highly valued; for example, Debbie explained that she had put time into promoting the program's importance and helping the student participants to feel special, and Joan also commented on this. Brydie was also supported by a positive relationships with Hazel, who had been her teacher for several years and clearly knew her well. Hazel discussed additional positive relationships elicited by the program, explaining that Reading for Life strengthened the

link between home and school and encouraged parents to engage more with their children's literacy learning.

6.2.3.2 Literacy development

6.2.3.2.1   Assessment data

Figure 6.13 shows Brydie's assessment data for her Reading Recovery program in 2011, and for 2013—her Reading for Life year.
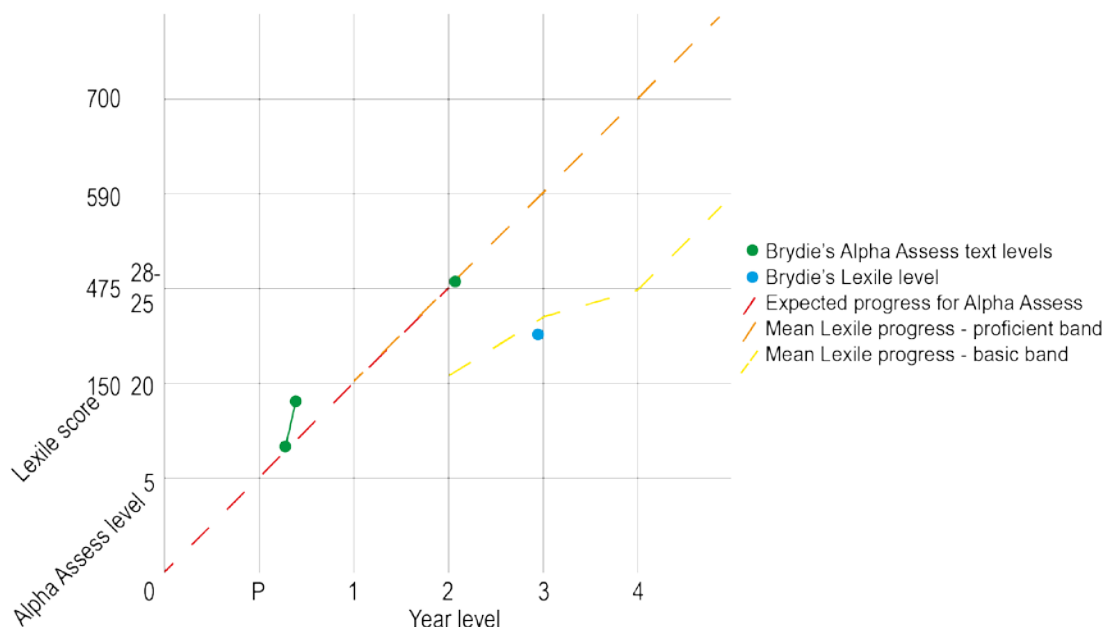
Figure 6.13. Brydie's Alpha Assess text levels in 2011 and 2013, and her Lexile comprehension score at the end of 2013. These data points show Brydie's assessed achievement before and after: her Reading Recovery program in 2011; and her Reading for Life program in 2013.

Figure 6.13 shows Brydie's instructional reading text levels at the beginning and end of Reading Recovery, and at the beginning of 2013, as measured using the Alpha Assess kit (2007). At the end of 2013, Brydie's classroom assessment data showed that she had scored 320 on the Scholastic Literacy Pro assessment (Scholastic, n.d.a), which placed her achievement a little below the basic band mean of 375. When interpreting Figure 6.13 it is important to remember that this Lexile score was in fact an improvement in Brydie's literacy data, showing that by this point she was able to demonstrate her independent comprehension skills in a test environment. Due to the retrospective and single phase nature of her case study I did not collect Brydie's classroom assessment data for her other years at school. Hazel offered some indication of Brydie's progress in year four—the year after her Reading for Life program—when she explained that Brydie continued to be one of the lower readers in her class.

In her Reading for Life data (not shown in Figure 6.13), Brydie made nine months gain in reading accuracy and 11 months gain in reading comprehension in the Neale Analysis of

Reading Ability (Neale et al., 1999), and 11 months gain on the Burt word reading test (Gilmore et al., 1981) over the course of her program. As with Oliver's data, Brydie's progress in these assessments was reported as months gained, rather than as scores or stanines that could be compared to age or year level norms, meaning it was not possible to establish her achievement in relation to her peers on these measures. In other Reading for Life data, Brydie scored in the high-average range on both the SPAT-R test (Neilson, 2003) and the Reading Self-Concept sub-test from the Self-Description Questionnaire (Marsh, 1990).

6.2.3.2.2   Observed changes in skills and behaviours

The adult participants in this case study observed a number of improvements in Brydie's reading during 2013. For example, Susan felt that Reading for Life had "pushed her up to not struggling", and Joan noticed that "her reading improved superbly", citing specific changes:

> She was quite a fast reader and didn't pause a lot in her reading.. I understand now that she's reflecting more on stopping and pausing and using the appropriate expression in the text and her reading.. I believe that she did improve and increase her Lexile levels. (Joan)

Susan spoke about Brydie's improved use of punctuation, which she believed enabled her to gain more meaning from the text. Brydie herself commented on her improved fluency, stating "I don't read like a robot". Hazel noted that Brydie's slow, awkward decoding and encoding had improved, though she qualified this statement, explaining that "she still breaks it down and has to work it out very slowly, a lot of other kids have better word recognition straight away, so she's still working on that I suppose." Brydie similarly shared that her decoding had improved but identified that she continued to have difficulties in reading at the word level, as illustrated by the following excerpt from our interview:

> INTERVIEWER: What do you find easy about reading at school?
>
> BRYDIE: Ah.., um, I don't know.
>
> INTERVIEWER: Ok. Is there anything you find difficult about reading at school?
>
> BRYDIE: Oh, well, the words sometimes.

6.2.3.2.3   Affective changes

The adult participants were not completely in agreement about Brydie's affective stances towards literacy tasks. Both Joan and Hazel spoke enthusiastically about Brydie's attitudes

to reading in general, and to the interventions she had participated in: Joan experienced Brydie as positive and motivated towards Reading for Life from the beginning of the program; and from Hazel's perspective, Brydie always had a positive attitude towards reading, and enjoyed both Reading Recovery and Reading for Life. Despite this, she observed that Brydie was not very confident about her reading, and was aware that she was not a strong reader. Susan and Debbie offered an alternate perspective of Brydie as a more reluctant reader. For example, Debbie described how: "Brydie.. well she was in the [Reading for Life] group last year and she almost went dragging her toes because she knew she was going to have to work hard". Susan remembered that Brydie had been reluctant to do her home reading before Reading for Life, giving the example that: "she wasn't bringing home books, there was always an excuse.. and we would have to read our own books". From Susan's perspective, Brydie was much more willing to read at home after her Reading for Life program. Susan explained that she was now a more confident reader, had developed book preferences, and loved reading.

6.2.3.2.4 Literacy practices

Brydie reported engaging in a range of school, community, and home literacies in her single LPQ. She engaged in 18 of the 21 practices, and took part in practices from each of the categories at least weekly.

Brydie's responses to the questions about how she felt about engaging in each practice were nearly always positive. However, like Oliver, she gave nuanced responses to the positivity Likert scale. For example, she explained she felt sad when listening to stories, giving the example of *Hidden* (author unknown)—a book containing stories of children hiding from the Nazis which they were listening to in class at the time, and noted that she felt hungry when reading the menu as she passed the local hotel.

Figure 6.14 plots Brydie's responses to her LPQ, showing the practices she engaged in more and less frequently, and felt more and less positive about. Included are illustrative examples of the ways in which Brydie reported engaging in some of these practices.

We play games and we sometimes do our lexile test.

I do Christmas lists.

I've got an iPod.. for listening to music and games.

Unclassifiable
Menus - you get really hungry cause you're reading them.

Good / Excellent

Positivity
Neutral

Negative

Computer
Tablet
Own writing
Craft

Camera
Make lists

Cooking
Directed writing
Reading school books
Reading other books
Magazines

Board games
Junk mail

Mobile phone
Working outside
Library

Signs

Listen to story

Monthly or less   Weekly   Daily or more
Frequency

I've made quiche and stew.

About my family.

If it's a good book,
I feel, like, happy.
I read this book called
'Round the Twist'.
It was a good book.

'Hidden', it's a war book. I feel sad, it's a sad story.

Figure 6.14.   Brydie's reported literacy practices in December, 2014. Larger font indicates more frequent and positive practices. Illustrative quotes from Brydie offer examples of these practices.

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Figure 6.14 shows that the practices Brydie engaged in most frequently, and felt most positive about, were: reading school and other books, and magazines; doing directed writing; and cooking.

Brydie brought *Ivy and Bean: Doomed to dance* (Barrows & Blackall, 2010) to our interview, discussing its plot in detail, and sharing that whilst she did not do ballet herself, she liked reading books about it. Whilst she enjoyed reading, and had genre preferences, Brydie was conscious that her text choices were limited by her reading ability, explaining:

> I'd like to read like really good books but they're a little bit too hard.. This book called *Spiderwick* [*The Spiderwick Chronicles*] (DiTerlizzi & Black, 2003-2009), I've watched the movie but I really want to read the book. And there's this other one, it's called *The Wishing Chair* (Blyton, 1937). (Brydie)

Hazel pointed out that feeling positive about engaging in print literacies did not mean that Brydie was confident as a reader and writer, nor that she believed she was proficient in these skills. Brydie herself made comments throughout her interview showing that she was aware that other students found reading easier and could read more complex texts than her.

6.2.3.2.5   Enabling and constraining factors

Figure 6.15 maps the influence of the six factors from the situated model on Brydie's literacy development through and beyond her interventions at Sacred Heart School.
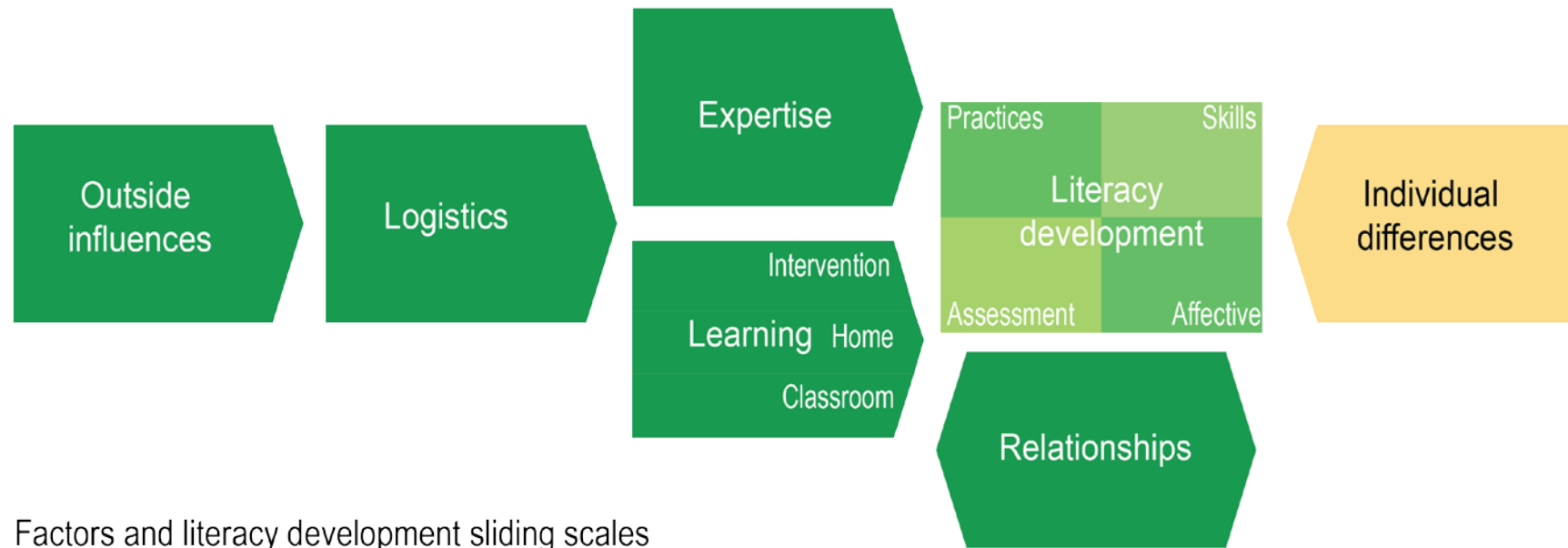
Factors and literacy development sliding scales
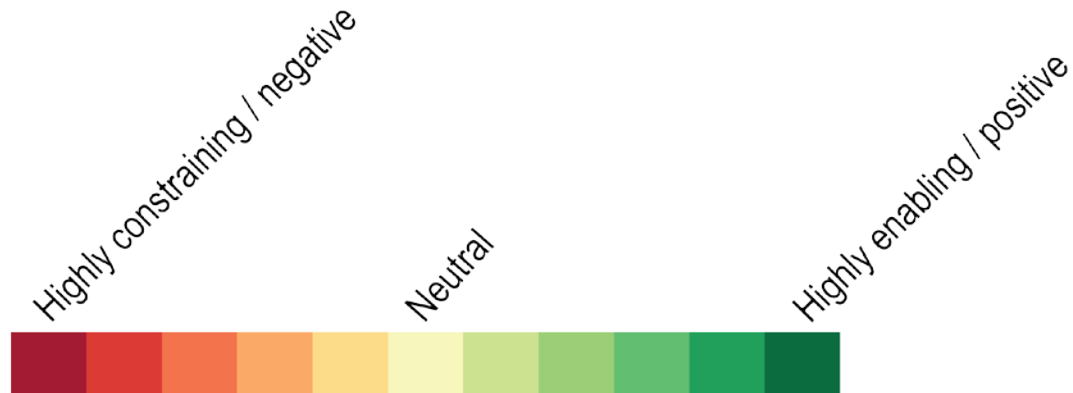
Figure 6.15. Situated model mapping the factors enabling and constraining Brydie's literacy development through and beyond her participation in Reading Recovery and Reading for Life.

Figure 6.15 shows that—as discussed in relation to Georgia and Oliver's case studies—the outside influences of CEOM policies and funding facilitated an enabling literacy learning environment with Reading Recovery as its second wave intervention. Sacred Heart School and its wider community also provided additional literacy intervention support for older students. Outside influences assisted the provision of a positive pedagogical environment, as described in Oliver's case study, which incorporated professional expertise, regular assessment, and coordinated learning experiences across classroom and intervention contexts. Positive relationships between Brydie, her educators, and her family were conducive to her engagement in learning in her classroom and intervention contexts.

Brydie's literacy difficulties were centred in two areas, literacy skills, and affective stances. Her challenges appeared to be quite mild, and her assessment data showed that she had continued to achieve literacy growth in her classroom environment in year two when not participating in an intervention. Opinion was mixed over her attitudes towards reading tasks, suggesting that her negative affective stances were not strongly marked or entrenched. No medical, sensory, or home challenges were reported.

These enabling extrinsic factors and mild individual difficulties converged to enable positive development in Brydie's observed literacy skills, and her attitudes towards reading and books. She also reported using literacy for a range of purposes and being very engaged in reading books in and out of school. At the end of her Reading for Life year Brydie had started to score on an independent comprehension measure, though at a level a little below the basic band mean for her year. She had made progress but, as Brydie herself, and her teacher Hazel noted, she still struggled with decoding and this impacted on her ability to read more complex texts and to keep pace with the literacy development of her peers. Both Hazel and Joan believed that Brydie would need monitoring and support to ensure she continued to make positive literacy progress.

6.3   Intervention in the later primary years

6.3.1   Lochie

> He had some trouble with his hearing so that didn't help, he's getting better, he's still not quite where he should be, but then that will never improve. So he's always had that disadvantage of actually hearing the sounds. So from a young age it was going to be difficult (Evelyn, Lochie's mother).

Table 6.7

Participants and background information for Lochie's case study

Setting	Sandy Bay School		
Age at first interview	Eleven years, two months		
Year level	Five and six		
Intervention	Literacy Support		
Person	Role	Interviewed in:	
		12/2014	04/2015
Lochie	Case study student	●	●
Evelyn	Lochie's mother		●
Karen	Lochie's year three Literacy Support class teacher, terms one-three	●	
Anna	Lochie's year five Literacy Support class teacher, term four	●	
Beth	Lochie's year six Literacy Block teacher		●

Lochie was a year five student at Sandy Bay School at the time of our first interview in December 2014. He is keen on sports and was hoping to be elected house captain[13] for the 2015 year.

Lochie had received additional reading assistance in year one and possibly in year two, though his mother Evelyn was not sure of the name of the program he participated in. Evelyn believed that this prior intervention had helped Lochie to improve his reading, but that he needed sustained assistance over a longer period of time, which was not available at Sandy Bay School. She also proposed Lochie's gender, and his interests in sport rather than in academic learning may have contributed to his lack of enthusiasm for literacy tasks.

Anna—Lochie's Literacy Support teacher for term four, 2014—described him as an earnest and enthusiastic student who worked diligently in instructional contexts. She explained that Lochie did not yet use texts to further his own thinking or learning, and struggled with inferring ideas. She observed that he had less confidence in himself as a

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[13] A school leadership position considered to be an honour.

learner, was less mature and had a shorter attention span than some of the other students in his class, and noticed that Lochie could engage in some unusual behaviours suggesting that he felt shy or embarrassed in class. Lochie himself explained that classroom noise made it difficult for him to concentrate on reading at school.

No formal assessment data were available to position Lochie's literacy achievement in relation to his peers, though Evelyn understood that he was reading two years below the expected level for a year five student when he was placed in the Literacy Support program at the start of 2014.

6.3.1.1 Learning

In 2014, Lochie's primary literacy instruction context was his Literacy Support class, which he participated in for 100 minutes per day, four days per week. Lochie engaged in other literacy learning and activities across his school day, such as working on the school radio station, using digital tools, and speaking in assembly. However, as with David and Finn's cases, detailed information about Lochie's school-wide learning was not collected due to time and organisational constraints.

In Literacy Support, Lochie's instruction was specific, and was based on assessment data and the ongoing needs of the group. Focus areas included: reteaching and reinforcing letter-sound correspondences; speaking and listening skills; reading comprehension skills; and engaging with a range of texts. The Literacy Support class directions and tasks were very clear and Anna commented that the supportive, predictable setting meant that Lochie was "less likely to get lost in the crowd". Lochie explained that during 2014, he had learned about the use of grammar and punctuation, improved his reading comprehension, practised writing narratives and had used reading comprehension cards to consolidate his comprehension skills.

In Lochie's home, reading is a valued skill and practice, and Evelyn emphasises its importance:

> I try to say to them 'look you need to read for these reasons, it's really important, when you get older you need to have a good understanding of what is going on because you'll need to find some work or go to uni or things like that'. So try and put it into context because a lot of the time they don't really know why they're doing these things (Evelyn).

Lochie's parents provided him with private literacy tutoring in terms two, three and four of 2014. Lochie commented that this tutor gave him hard homework, and helped him to read

faster and complete books in a shorter period of time. In term one of 2015, Lochie was no longer receiving this tuition but Evelyn was considering reinstating it. She felt that Lochie was prone to dropping back in achievement after receiving support and was concerned that this was likely to happen as Karen, the specialist Literacy Support teacher, was no longer working at Sandy Bay School. Evelyn also shared her plans for sending Lochie to a private secondary school the following year in the hope that this smaller setting would provide more supportive programs and additional tuition to accelerate Lochie's literacy development.

Lochie, his teachers, and his mother all commented on the excellent relationships they had with Karen. The teachers observed that Karen gave very good feedback, and Evelyn felt well informed about Lochie's progress and needs. Evelyn had organised the private tuition in consultation with Karen and Lochie's home-group teacher, and made sure that information was communicated from the tutor to the teachers and vice versa. Both Anna and Beth—Lochie's Literacy Block teacher in 2015—spoke positively about Lochie, suggesting good teacher-student relationships.

6.3.1.2 Literacy development

6.3.1.2.1   Assessment data

As discussed earlier, no formal assessment data was available to describe Lochie's achievement and progress in 2014. At the beginning of 2015, his PM Benchmark (Smith et al., 2009) text level was 28. According to the PM Benchmark manual, level 28 is equal to a reading age of 10.5-11 years (Smith et al.), although information for Victorian Government teachers ("Benchmarking ready reckoner", n.d.) suggests that this text level is closer to a year three reading level. No data from independent comprehension assessments were available.

6.3.1.2.2   Observed changes in skills and behaviours

In 2014, Anna commented that Lochie had improved his decoding whilst in the Literacy Support program, but identified that this skill was still effortful for him, and that Lochie's slow decoding could impact on his ability to recall, think about, and comprehend texts. Anna explained that his fluency had also improved, that he could generally gain an understanding of what he had read, and that he now had a broader understanding of literacy and knew that reading included a range of text types. Evelyn believed that Lochie's spelling, writing, use of grammar, and reading and responding to books had all improved during participation in the Literacy Support program.

In 2015, Lochie was placed in the second to bottom of four streamed year five-six Literacy Block classes. His teacher, Beth, spoke positively about Lochie's learning and explained that his instructional foci would continue to be fluency and higher-order comprehension skills. She revealed that Lochie's literacy achievement was towards the top in this class and that he had been considered for placement in the second to top Literacy Block class, but it was decided that, in order for him to continue to experience success, to be able to complete his work, and to retain his confidence, Lochie would remain in his current Literacy Block setting.

6.3.1.2.3 Affective changes

Lochie spoke positively about his improved engagement in, and perseverance when, reading books. In the following interview excerpt, he narrates the ways in which he increased his reading stamina and improved his reading work ethic:

> LOCHIE   I've been pretty good, I've been pretty consistent, yeah, I've read every night for like 20 minutes, fill in my diary, and then have to read in literacy class.. last year I didn't read like non-stop. Now I like read like every day, yeah.
>
> INTERVIEWER   Ok. So what's changed with that?
>
> LOCHIE   Because Mum says I have to step up a level because I'm year six now so I had to go harder, crack down and work. So I start reading like, more often now.. I'm trying to get better, knuckle down and work. (interview two)

Evelyn agreed that Lochie was now more motivated to read, and had a better understanding of the importance of reading. Beth confirmed these attitudinal changes in Lochie—who she knew well as she had been his classroom teacher in earlier years—affirming that he was now more mature and confident. A particularly important event for Lochie in 2015 had been his appointment as a house captain, a role for which he had had to submit a written application and attend an interview. Beth described this appointment as a boost to his confidence which had impacted positively on his wider learning:

> ..well writing is not his strong point. He wrote that application, blood sweat and tears into it, he got an interview! And then he actually got it! I think that for him was like 'YES'. That was a major fist pump moment because it meant that he wasn't any worse off than any of the others. He was able to do the exact same task and get the interview and then beat a lot of these other kids that

can potentially write a heck of a lot better than he can. So I think that was

really good for him. He's started the year off really well, positive, very

confident, it's great. (Beth)

6.3.1.2.4   Literacy practices

Lochie reported engaging in all 21 practices in the LPQ in both of his interviews. In

our second interview he only used the moderate good and neutral categories on the

positivity Likert scale, whereas in our first he used the not very good category twice.

His examples for these practices suggested specific reasons for these lower ratings,

as his purpose for using a mobile phone was "calling Mum if she's not home", and

his feeling towards reading menus depended on whether or not he liked the food on

them (interview one). As with Oliver and Brydie, Lochie's responses to the

positivity Likert scale implied that, at times, this tool was too simplistic to capture

students' attitudes towards their literacy practices engagement.

Figure 6.16 plots Lochie's LPQ data from April 2015, showing changes in his engagement

in, and enjoyment of, these practices since December, 2014.   Illustrative quotes from

Lochie's LPQs offer examples of the ways in which he reported engaging in these

practices.

I made someone
a birthday cake (Int. 1).

Photographing my
little baby cousin (Int. 1).

If Mum's not home,
I just call her to see
when she's coming
(Int. 1).

Good

Positivity

Neutral

Boardgames +
Cooking +
Library +
Camera +

Listen to story + +
Own writing +
Working outside +
Tablet
Directed writing

Read school book +
Signs + +

Application for house captain
(Int. 1).

Big W magazine (Int 1 & 2).

Menus +
Mobile phone +
Playstation -
Junk mail -
Make lists - -

Read other book +
Magazines
Labels
Computer
Craft -

Research (Int 1 & 2).

++ Practices increasing in both
frequency and positivity.
+ Practices increasing in frequency
or positivity.

- Practices decreasing in frequency
or positivity.

- - Practices decreasing in both
frequency and positivity.

Monthly or less   Weekly   Daily or more
                        Frequency

Figure 6.16. Lochie's reported literacy practices in April 2015, showing changes in engagement since December 2014.
Larger font indicates more frequent and positive practices. Illustrative quotes from Lochie offer examples of these practices.

Figure 6.16 shows that Lochie's most frequent and enjoyed practices were reading a school book—which he explained he was doing more often, and reading signs—which he reported engaging in more often, and also gaining more enjoyment from. He and Evelyn both commented that Lochie enjoyed reading signs whilst travelling in the car and that he was particularly keen to remind the driver of the speed limit!

Lochie's reported changes in practices from his first to second LPQ included: increased engagement in and positivity towards listening to stories; an increase in positivity for going to the library, working outside, and playing board games; and an increase in frequency for reading magazines, and doing self-directed writing. Lochie reported decreased enthusiasm for doing craft, and decreased engagement in and positivity towards making lists—which may have been related to the data collection timings, as Lochie's first example of a recent list he had made was his Christmas list to Santa, whereas in the subsequent interview he could not think of a recent example.

Lochie likes to read funny, "kind of stupid books" (interview one), and books relating to his sporting interests. He gave specific examples of texts he was reading at each interview: *Ratburger* (Walliams, 2012) at our first interview; and, at our second, the *Toby Jones* series (Panckridge & Lee, 2003-2010), volunteering that:

> Yeah, I just got into it, just started. There's Brett Lee and Tony, ah, Toby. And they're really good cricket players. I haven't read much because I just started. Yeah and I think they've started to get really good at batting and bowling and they're pretty good" (Lochie, interview two).

Evelyn and Anna felt that the Literacy Support program had enabled Lochie to make better choices when selecting books, which in turn allowed him to be more successful when reading them. For example, Anna relayed that he had "developed a personal interest in some authors and in particular genres", whilst Evelyn explained:

> He's read a whole book which is really good, and he's on to another one. So that's good.. Before, he would choose really big books that were really inappropriate. And I'm trying to say to him, 'look mate, it's better to choose something you can get through and achieve that, than pick a huge book you would only get a chapter or two through and really struggle with. So that I think has improved as well. He's picking the right books for him, which is good. (Evelyn)

6.3.1.3 Enabling and constraining factors

Figure 6.17 maps the influence of the six factors in the situated model on Lochie's literacy
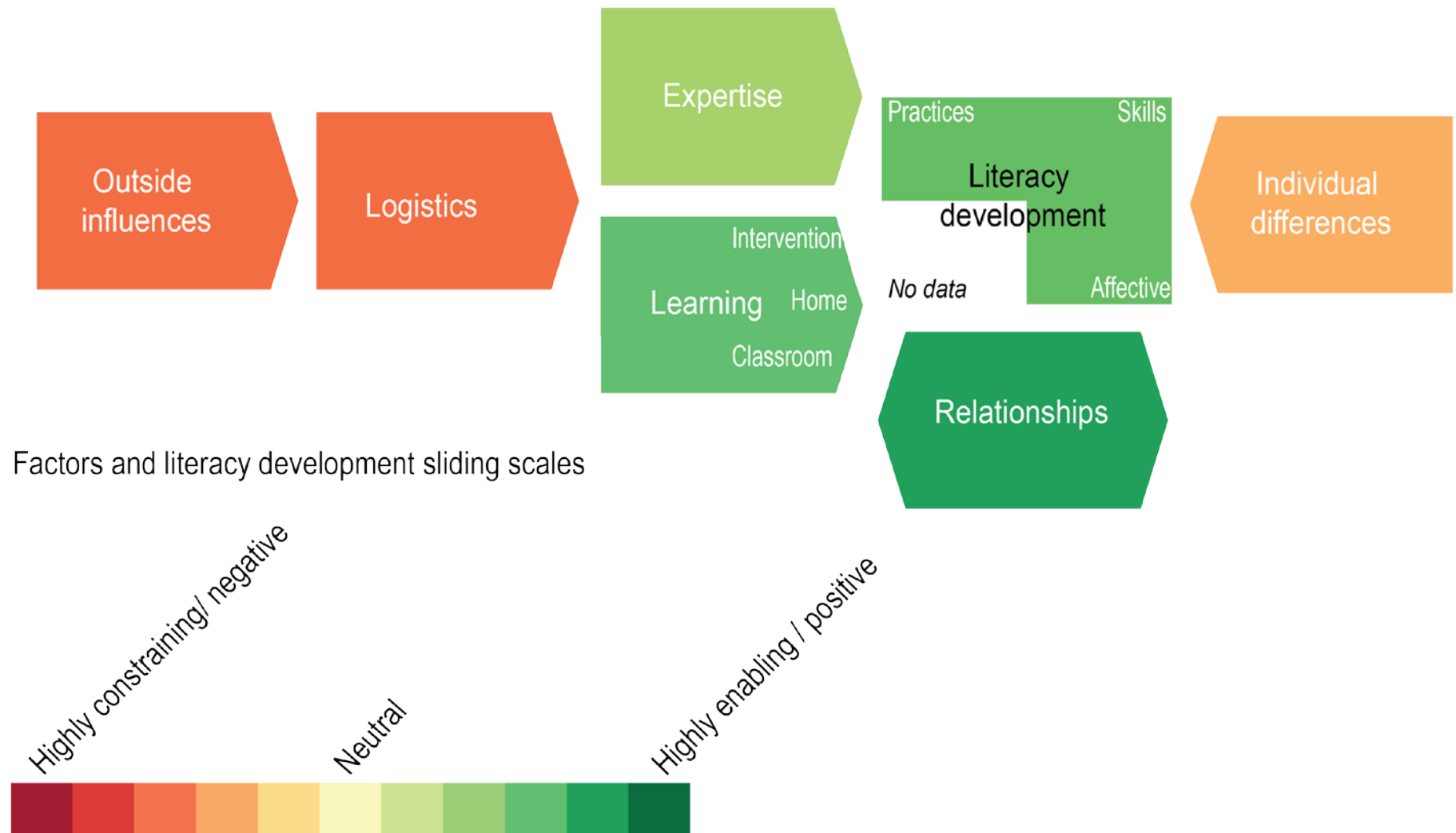
development.

Figure 6.17. Situated model mapping the factors enabling and constraining Lochie's literacy development through and beyond his participation in Literacy Support.

Figure 6.17 shows that, as discussed in relation to Finn and David's cases, outside influences were relatively constraining for Sandy Bay School when they sought to implement a school-wide literacy intervention with a dedicated teacher. Despite exhibiting ongoing literacy difficulties, Lochie had not received sustained intervention in the past, and, whilst the school offered a specialist Literacy Support program in 2014, the logistics of funding and delivering this were challenging, and the school was unable to continue funding a specialist literacy teacher beyond 2014.

Lochie learned in home and school environments with experienced teachers, including a dedicated Literacy Support teacher and private tutor in 2014. He participated in explicit literacy instruction and in a range of contextualised, everyday literacies both in and out of school. Expertise and learning are shown as being quite enabling factors for Lochie in Figure 6.17. Participants reported positive relationships and good communication between home and school, and between Lochie and his teachers and private tutor. Relationships are also shown as enabling for Lochie.

Individual differences contributing to Lochie's literacy difficulties included: the impact of early hearing difficulties; skill difficulties in decoding, encoding, comprehension and fluency; and a lack of enthusiasm for print literacy activities. Assessment data was not available to compare Lochie's Literacy Support entry levels in relation to year level expectations. Lochie's individual differences are shown as being reasonably constraining factors.

Over the course of his Literacy Support program, Lochie's literacy development was evidenced through progress in his literacy skills and behaviours, an improved work ethic towards literacy tasks, and the development of some reading tastes and preferences. Lochie continued to improve in these areas post-Literacy Support, but still found reading challenging, explaining that he continued to encounter word level difficulties. The extent to which Lochie's assessed literacy levels changed over 2014 is not known, and assessment data describing his performance on independent comprehension tasks was also not available.

Lochie, his mother, and his teacher Beth theorised that as Lochie improved his literacy skills, his confidence and willingness to attempt literacy tasks improved, enabling a positive cycle of literacy improvement and engagement. Beth further noted that successes outside the literacy environment—particularly becoming a house captain—had supported Lochie's overall self-belief and self-efficacy.

Lochie and Evelyn were aware that he may need additional support with literacy learning in the future, and Beth emphasised the need for Lochie and his learning to be carefully monitored at secondary school.

6.4   Chapter summary

This chapter has provided specific examples of the ways in which literacy interventions contributed to students' literacy development, in tandem with a range of other factors. It outlined six students' literacy difficulties, the literacy interventions and other learning opportunities they participated in, and their literacy development through and beyond their interventions. These cases highlight the specificity of each student's literacy learning trajectory, and point out a number of influences on each students' literacy development. The situated model introduced in chapter three and discussed in chapter five was used to map key enabling and constraining factors impacting on each of these students' literacy development. The following chapter—discussion two—discusses key findings from across these cases, using research literature to consider the complex interrelationships between extrinsic and intrinsic factors contributing to literacy difficulties and development.

7. Discussion of the individual and overall findings

This chapter has two parts. The first section offers a cross case analysis of the six case study students' literacy difficulties and their literacy development through and beyond their respective interventions. It explores the research questions: To what extent does participation in a print literacy intervention impact on students' home, school, and community literacy development?; and What are the factors impacting on these individuals' intervention success? The second section draws together the findings from the State, school, and individual data sets to address the overall research question: How do print literacy interventions contribute to literacy development?

7.1 Individual case studies

This section begins with a discussion of students' individual differences, and identifies disparities in the degree of their literacy difficulties. Next, students' literacy development is conceptualised using both sociocultural and cognitive evidence of their improvement through and beyond their interventions. Their literacy development is discussed using the four dimensions identified in the situated model: formal assessment data; teacher, parent, and student observations of improvements in literacy skills and behaviours; changes in affective stances towards literacy engagement; and changes in contextualised literacy practices. These dimensions are discussed in relation to the research literature on literacy difficulties and assessment. The ways in which students' individual differences interacted with the learning on offer in their respective home, classroom, and intervention contexts is explored, and a range of influences on students' literacy development are identified. Different kinds of literacy trajectories are discussed, which appeared to relate more to students' individual differences than to the type of intervention they participated in.

7.1.1 Loci of literacy difficulties

The six case study students were similar in that they were all Australian born, spoke English as their first language, and had parents who made additional or alternate educational choices for them. As outlined in chapter six, each student engaged in broad, life-wide literacy practices connected to their interests and strengths, and had experienced difficulties in acquiring print literacy. The degree of these difficulties ranged from students reading at levels just below, to those reading more than one year below, the expected levels for their age or school year. Students' identified and/or proposed loci of difficulties were broadly categorised as sensory, cognitive, affective, and extrinsic. The following section discusses each of these loci in relation to the research literature.

7.1.1.1 Individual differences
7.1.1.1.1   Sensory difficulties

In four case studies participants cited sensory issues as contributing to the students' literacy difficulties: Lochie's early and continued mild hearing difficulties; and Georgia, Finn, and Oliver's visual difficulties as identified through behavioural optometry assessments. Research evidence is conclusive that hearing difficulties, including minimal impairments, can impact negatively on language and literacy development (e.g. Bess, Dodd-Murphy, and Parker 1998; Moeller, Tomblin, Yoshinaga-Itano, Connor, Jerger; 2007), providing support for Evelyn's (Lochie's mother) belief that Lochie's early hearing difficulties were a likely contributing factor to his literacy difficulties.

In contrast to this, the theory that differences in eye tracking and behaviour are an underlying cause of literacy and learning disabilities, and that these differences can be corrected through visual training exercises and behavioural lenses, has been repeatedly disproved in a multitude of research studies and meta-analyses (e.g. American Academy of Paediatrics, 1998; Barrett; 2009; Jennings, 2000, as cited in Barrett, 2009). Despite this, behavioural optometry clinics are common across Australia, and in both school settings it appeared to be an accepted practice for students with learning difficulties to be assessed by a behavioural optometrist, as three of the six case study students had been assessed at a behavioural optometry clinic, and prescribed glasses or an eye exercise program.

Behavioural optometry provides one example of the wide range of programs purported to 'fix' students' literacy and learning difficulties. Others—including brain training programs—were identified and discussed in chapters four and five. Many researchers (e.g. Barrett, 2009; Klenk & Kibby, 2000; Snow et al., 1998) have raised serious concern about the proliferation of unsubstantiated remediation programs and therapies for students with reading difficulties, including behavioural optometry and brain training, noting that these present the potential for exploitation of both parents and children. Barrett explains that: "these children and their parents represent a vulnerable group… Parents inevitably run the risk of wasting their time, effort, and resources, and they and their children may become disillusioned if expectations are repeatedly raised and then dashed" (p. 8).

Participants in Finn and Oliver's case studies concluded that these students' behavioural optometry interventions were unhelpful. Finn's mother described his prescribed exercise program as "traumatic" (interview one), and Oliver himself explained that "Last time you saw me.. I was reading with glasses, and the optometrist said it would make me read better but it was actually getting harder" (interview two). Georgia's behavioural optometrist

assessment occurred just before our second interview and resulted in a prescription for glasses. These were initially described as helpful by her mother and teachers, but their efficacy was not commented on four months later in our final interviews. Whilst the scientific consensus is that such exercises and lenses will not remediate these students' literacy difficulties, the popularity of behavioural optometry clinics suggests that schools and parents are seeking external support with, and solutions for, literacy and other learning difficulties.

7.1.1.1.2 Cognitive differences

Cognitive differences, disabilities, and underlying skill difficulties were commonly cited as possible causes of the case study students' literacy difficulties, ranging from diagnosed disabilities to specific skill challenges.

7.1.1.1.2.1 Literacy disabilities

A small proportion of students have severe and prolonged literacy difficulties, some of whom are diagnosed with a specific literacy disability—dyslexia, rather than more generalised cognitive difficulties. In this study, a possible diagnosis of a specific learning disability was investigated for two students: David was diagnosed with mild dyslexia through a private assessment, though information about the type and results of this assessment was not offered; and Finn was assessed by a school psychologist to investigate whether he had a specific learning disability. In addition, the possibility of Georgia having dyslexia was raised by her mother and teachers, in part because of her ongoing literacy difficulties, and also in relation to her parents' own literacy difficulties, due to the heritability of dyslexia (Grigorenko, 2004; Snow et al., 1998). Based on the information provided by parents and teachers in this study, only Finn's assessment appeared to have been conducted by a psychologist, and the type and extent of this assessment was not established.

Diagnosing a specific literacy disability is difficult. The most commonly accepted method of diagnosing dyslexia uses an IQ discrepancy formula, meaning that students' overall IQ is assessed using a battery of tests, and their performance in the literacy skill sub-tasks and combined literacy tasks is compared in relation to their overall IQ score (Siegel, 1992). Students with normal or above average IQs, and significantly lower scores in some or all of the literacy components of the battery, are diagnosed with a specific literacy disability (Mather, 2002). As discussed in the literature review, these students typically perform particularly poorly on phonological tasks. There are several difficulties with IQ discrepancy methodology and practice: a full IQ battery is not available until students are

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aged seven; the battery of assessments can only be delivered by a registered educational psychologist; and assessment is time consuming and costly, and so is generally privately funded by parents rather than through public health or education services. As highlighted in the literature review, these cost and availability constraints mean that a diagnosis of specific learning disability—dyslexia is usually limited to students from more affluent backgrounds.

Many argue that proving dyslexia using an IQ discrepancy is not necessary, as nearly all poor readers, regardless of their overall intelligence, exhibit the same patterns of literacy skill difficulties, and so require the same kinds of instruction and support (Lyon et al., 2001; Siegel, 1992; Stanovich, 1996; Steubing et al., 2002). An alternate method of diagnosing literacy disabilities is a non-categorical, response-to-intervention approach, in which the literacy development of students with literacy difficulties is tracked in relation to the education and intervention they have received. Students who do not make reasonable progress in spite of access to quality education and intervention are considered to have not responded to intervention, and are understood to have a literacy disability requiring long-term support. Whilst response-to-intervention diagnoses are more pragmatic, school-centred, and economical than IQ discrepancy testing; the findings from this study suggest some difficulties with utilising this approach. In particular, the outside influences impacting on the case study schools suggest practical challenges, as a response to intervention diagnosis requires funding and support for sustained interventions, which were reported to be inadequate in the Victorian Government school sector.

7.1.1.1.2.2   Broad cognitive difficulties

Whilst substantiated diagnoses of specific literacy disability were not made for any of the case study students, observational and assessment data did identify broad cognitive skill differences in two students. These included difficulties with memory and processing, and more general oral language challenges; both of which are moderately accurate predictors of literacy difficulties (Dally & Chan, 2000; Snow et al., 1998).

Participants in Georgia's and Finn's case studies identified short and long term memory difficulties, and limited ability to retain information, as factors impacting on these students' literacy learning. Georgia's mother and her teachers described how she forgot new learning from day to day, and had difficulties in following directions. Finn's mother explained that memory difficulties were identified in his psychological assessment, and Finn's assessment data on entry to Literacy Support pinpointed serious auditory processing difficulties. Finn himself said "oh god, it's happening again!" (interview one) when he

couldn't remember the name of a book he wanted to read, suggesting that he was aware of and frustrated by his memory challenges.

Broad oral language difficulties have been proposed as another underlying cognitive cause of literacy difficulties (Gee, 2015; Hecht et al., 2000; Scarborough, 2009; Shapiro et al., 1990). Whilst oral language was not originally an area for exploration or data collection in this study, during the course of my qualitative interviews with the case study students I observed differences in students' expressive language, and explore this data, its potential implications, and its limitations, in relation to these students' overall literacy development later in this chapter.

7.1.1.1.2.3 Literacy-specific cognitive difficulties

Students' pre-intervention assessment data provided information about each student's literacy skill difficulties, including phonological and book level data. In addition, observational data from parents, teachers and students identified areas of challenge for the students. These data sets showed obvious differences in the degree of the case study students' literacy difficulties.

Phonological skills, including hearing, discriminating between, and manipulating the sounds in words are a significant precursor to the development of print literacy (Gillon & Dodd, 1997; Moats 1999; Stanovich, 1986; Torgesen, 1999), and poor phonological skills are a moderate predictor of later reading difficulties (Snow et al., 1998). All staff and intervention providers appeared cognizant of the importance of phonological awareness to print literacy development, as phonological awareness tests were used with students in both schools and all three intervention settings. I received SPAT-R (Neilson, 2003) data or condensed information for five of the six case study students from their respective school settings, and this showed that only Finn exhibited severe difficulties in this area. However, as Georgia, Brydie and Oliver's SPAT-R data was collected on exit from their interventions, it is possible that their phonological awareness had improved over the course of their programs.

Tests of literacy sub-skills were used with many students to identify areas of difficulty, showing clear differences in their letter-sound and word reading ability. For example, Georgia could read one word and recognise 39/54 letters on entry to Reading Recovery, whereas David could read 38 words and recognise 51/52 letters on entry to Literacy Support.

Students' instructional reading book levels were assessed using the PM Benchmark (Smith et al., 2009) and Alpha Assess (2007) running record kits, and also through their instructional reading group levels in the classroom. Their reading book level data shows that on entry to their 2014 interventions, Oliver and David were reading at levels close to, Georgia was reading approximately nine months below, and Finn was reading approximately one and a quarter years below, their respective school sector year level expectations. At the beginning of 2013, Brydie was also reading at a level close to expectations, and Lochie's 2014 reading book level entry data was not available.

In addition to the above assessments, observations from teachers, parents, and students contained many references to the literacy skills, strategies, and behaviours that the case study students struggled with. Teachers and parents observed unusual and inefficient decoding behaviours in all of the students, and also discussed students' challenges in a range of other skills, including reading fluency, sight word knowledge, writing, spelling, and comprehension. Whilst parents and teachers tended to discuss a range of literacy skills, students focused more on their word level challenges.

7.1.1.1.3 Affective difficulties

Students with literacy difficulties commonly exhibit poor motivation and negative affective stances towards literacy activities (Chapman et al., 2000; Linnenbrink & Pintrich, 2003; Morgan & Fuchs, 2007), and Chapman et al. found that these stances emerge very quickly after students first encounter difficulties in learning to read. In this thesis, all case study students demonstrated some degree of negativity towards reading and literacy tasks prior to participation in their interventions. Finn and Georgia were reported to be the most reluctant; finding reading especially frustrating and, at times, upsetting. The other students exhibited milder negative stances, with one or more participants in each of their case studies remarking that they were not confident about, or motivated to engage in, literacy activities.

7.1.1.2 Extrinsic differences
7.1.1.2.1 Pedagogical dissonance

In the literature review I identified a number of possible extrinsic explanations for students' literacy difficulties, including learning opportunities that are irrelevant or conflict with their funds of knowledge, inadequate instruction at a school level, inadequate support for learning and literacy at a home level, and inadequate support for families and children at a societal level. Whilst some of these ideas were voiced by participants in this study,

they were not offered as frequently or discussed in as much depth as the intrinsic explanations discussed above.

Inadequate classroom instruction was not raised as a contributing factor to students' literacy difficulties, though Rowena (principal, Sandy Bay School) did acknowledge that it could be difficult for teachers to link instructional opportunities to the interests of students when catering to large classes with a range of abilities and interests. She also explained that it was extremely difficult to accelerate the achievement of students with severe and profound literacy and other learning difficulties and disabilities in mainstream classroom settings. Two parents—both from Sandy Bay School—suggested that inadequate access to interventions was a contributing factor to their child's difficulties, a belief linking to the system and school level findings discussed in chapter five.

In contrast with others' research (e.g. Au, 1980; Heath. 1983; Rennie, 2010), strong cultural disconnects between intervention and school, and home and community worlds did not appear to be a major factor contributing to the literacy difficulties of these case study students. At both Sandy Bay and Sacred Heart Schools, the case study students were linguistically and ethnically consistent with the majority of their peers, and with their school tutors and teachers. The six students also appeared to be relatively advantaged— each with a parent or parents in paid work. Though Sacred Heart School's ICSEA number was in the low range using the online scan quarters—implying a comparatively low socio-educational status population—the parents in this setting demonstrated a level of agency and cultural capital in making an alternate (Catholic) school choice, and financial capital in being able to afford the school's modest fees. In both schools each student's mother attended one or more interviews with me, discussing their child's literacy learning in detail, and affirming support for their intervention opportunities. This suggested a relatively strong connection between the kinds of learning and literacy practices valued at home, and at school.

7.1.1.2.2 Home differences

Parents described the various ways the case study students developed their literacies at home; through informal activities such as reading around the community, writing lists and cards, engaging with technology, and helping with practical activities; and more formally, through practising reading books and writing texts, at times with the help of targeted learning programs. Principals and teachers believed that parents needed to reinforce school reading practices with their children, through reading to them, listening to them

read, and ensuring homework was completed. Nichols (2000) also identified Australian schools' expectations for these kinds of home learning support.

Oliver's and Georgia's classroom and intervention teachers and tutors suggested that inadequate parental enforcement of these students' home reading practice may have contributed to their literacy difficulties. As discussed in chapters four and five, the belief that inadequate support for school learning contributes to students' literacy difficulties was also shared more generally by staff at both case study schools, an understanding that links to the ideas on home deficit theory explored in the literature review. Nonetheless, in this study, the interviews revealed that all parents were involved with their child's reading practice to some extent, and most students and parents described regular home reading routines. Three parents explained that the expectation to conform to school homework requirements could be challenging, particularly when working unconventional hours and caring for other family members. One of these parents stated that she would prefer it if the school took responsibility for students' reading practice. Whilst expectations for home learning support appear to be common in Australian schools, Nichols (2000) maintains that oversimplifying the importance of such parental support is unhelpful, explaining that "the link between family process variables and children's achievement is a complex one and may be indirect" (p. 161).

Parents shared differing beliefs about their roles in supporting their child's literacy development. At Sandy Bay School the parents were more assertive, for example, through advocating for an intervention program at the school and seeking outside tutoring and assessment. At Sacred Heart School the parents appeared more willing to let the school get on with the job, possibly because sustained intervention opportunities already existed in this setting.

Parents also used their own financial resources to support their children's literacy learning. For example, each of the case study students at Sandy Bay School received private tutoring, and one had been assessed privately for learning difficulties. Students in both settings had been assessed by behavioural optometrists, and parents in both settings gave examples of the technological tools they provided to support literacy and other learning. As discussed above, at Sacred Heart School, parents had already exercised school choice, and were paying modest fees in order to attend a Catholic school. One Sandy Bay parent explained that she was sending her child to a private secondary school in the hope that he would receive additional learning assistance, and another alluded to making an alternative school choice in the future in order to access additional support for her child. Nichols

(2000) noted that some parents in the *Mapping the Territory* study also sought private help for their children's learning needs, suggesting that this practice is not new for Australian families. Whilst policy appears to have shifted from mandating and funding intervention programs in Government schools, and may also be altering in Catholic schools; the parents in this study spoke of how they were filling this gap themselves, through funding alternatives and additions to school programs and interventions.

7.1.1.3 Summary of students' differences and difficulties

As discussed in the previous sections, across the students' cases there were commonly identified causes or contributors to their literacy difficulties. Each of these loci ranged on a spectrum from less to more pronounced contributors. In determining the degree of students' difficulties I relied on participants' observations of these students' print literacy development in relation to others, and students' assessment data in relation to assessment norms and to the year level expectations for primary aged students in the Government and Catholic school sectors.

I acknowledge that expectations for individuals' literacy achievement have increased significantly over the years (Allington, 2011; Klenk & Kibby, 2000; Murnane, Sawhill, & Snow, 2012; RAND, 2002), and agree that cut off points for age or year level 'success' are both arbitrary and shifting. Yet I also concur with Brooks (2007), Cunningham and Stanovich (1997), Francis et al. (1996), and Murnane et al. (2012) that students who do not meet year level criterion standards are at risk of struggling with learning across their school careers, and with community and workplace literacy demands as adults. In this thesis, the students' assessed achievement in relation to their peers was shown to relate to their overall print literacy development. Students' literacy development is therefore conceptualised as an interaction between students' identified difficulties and the learning opportunities provided.

Table 7.1 summarises the case study students' loci of literacy difficulty (with the exception of behavioural optometry, due to un-substantiation).

Table 7.1

Case study students' loci of literacy difficulty on entry to their respective interventions

Locus of difficulty	Case study students					
	David	Georgia	Finn	Oliver	Brydie	Lochie
Sensory						√
Cognitive difference	√		√			
Memory		√	√			
Phonological awareness			√			
Home reading		√		√		
Inadequate intervention			√			√
Reading > 1 year below		√9[*]	√			[+]
Observed challenges	√	√	√	√	√	√
Affective	√	√	√	√	√	√

Notes. [*]Georgia had only been at school for nine months at the time of her assessment, therefore she was as far below in her reading level as it was possible to be. [+]Missing data for Lochie.

Table 7.1 highlights that of the case study students, Finn exhibited the most differences and difficulties, with reported challenges in seven of the nine loci listed. Georgia was reported to show difficulties in five, whilst the other students were reported to experience challenges in four or fewer, of these areas. Participants' observations of students' negative affective stances towards literacy, and of their literacy skill and behaviour challenges, were the only loci consistently identified for all case study students. These differences between the case study students' loci of literacy difficulty emphasise a finding from the school level data, which is that Sacred Heart and Sandy Bay Schools provided interventions both remedially—for students like Georgia and Finn who were achieving well below their peers, and preventatively—for students who were reading at levels close to their peers but were not yet confident or competent readers, like David, Oliver, and Brydie.

7.2   Literacy development conceptualised in four ways.

This section discusses the students' literacy development, and conceptualises this as a four dimensional, socio-cognitive process consisting of: assessment data; participants' observations of students' literacy skills and behaviours; report of changes in affective stances; and data on students' contextualised uses of literacies. An additional dimension of students' oral language is also discussed. This section concludes with an analysis of students' overall literacy development, identifying interactions between these four

dimensions and theorising a connection between achievement in formal assessments and engagement in contextualised literacy practices.

Across these four dimensions, literacy development through and beyond a literacy intervention can be conceptualised in two different ways. The first is to consider students' outcomes in relation to their starting points—that is, to consider their progression using formal and informal measures. The second is to compare students' outcomes in relation to the expected levels for their age or year level. The latter is most obviously relevant to formal assessment data, though participants in this study also discussed students' skills, practices, and affective stances in relation to their age or year level peers. In this section, I primarily refer to 'success' as meeting year level expectations, in line with the case study parents' and teachers' intervention aims and expectations for intervention progress. I also discuss students' progress in relation to their own starting points. I return to these two conceptualisations in the overall discussion in the second part of this chapter, when I problematize the expectation that interventions will 'catch students up'.

7.2.1 Assessment data
7.2.1.1 The use of schools′ data
Schools' assessment data for each case study student was initially included in the research design as a proxy for students' skill improvement, enabling me to identify relationships between their skill progress achieved through the intervention, and their uses of literacy in the classroom and community. Using the schools' assessment data proved challenging at times, as data points or sets were missing for some students, and methods of data presentation meant that students' results could not always be compared to year level expectations. Yet, as discussed in the methods chapter, using schools' data meant that I gained an insight into how and why schools identified students for intervention and made judgements about their progress. In the qualitative interviews, most of the classroom and literacy intervention teachers rarely referred to this assessment data when discussing the case study students' literacy progress, relying instead on their observations when discussing students' achievement. Their formative observations gave a clear picture of what students could do, whilst the school assessment data provided a means by which I could consider students' assessed literacy achievement in relation to year level expectations. In some case studies there were some tensions between the different data sets, as at times the participants described highly positive outcomes, whilst the assessment data suggested more modest progress.

7.2.1.2 Changes in assessment data

Students' literacy assessment data was used to explore their progress, and their achievement in relation to year level expectations through and beyond their interventions. Students' achievement on two main kinds of assessment tools—running records and independent comprehension tests—is discussed in the following section. It is acknowledged that these measure different literacy skills in different assessment contexts, and these distinctions are also explored in the following sections.

Students' post intervention assessment data showed that Georgia, David, Oliver, Finn, and Brydie all made progress in reading book level—as assessed using running records—over the year/s in which they participated in their interventions. This progress was examined to determine whether these students made accelerated, expected, or slower progress in reading book level than what was expected for students in their respective year groups and school sectors. During their Reading Recovery programs, Brydie made rapid accelerated progress in book level, and initially, so did Georgia. Oliver, Finn, and David's book level progress accelerated slightly over the course of their interventions. This information, together with the qualitative data reporting Lochie's classroom reading levels, implies that each student's interventions helped them to improve the level at which they could read texts.

Yet when students' achievement in relation to their respective year level expectations was considered, their post-intervention data—as measured through book levels and, for some older students, through their achievement on independent comprehension tests—showed markedly different outcomes, which appeared to relate to their individual differences on intervention entry. David and Oliver both exited their interventions reading at or close to the expected levels for their year groups. As a year one student at Sandy Bay School, running record data was assessment evidence of David's achievement, as independent tests of reading are not usually used for students in the early years of school. As year three students at Sacred Heart School, Oliver and Brydie were expected to demonstrate independent reading comprehension competency on the Scholastic Literacy Pro Lexile (Scholastic, n.d.a) assessments. Neither student had scored on this measure at the beginning of year three (their Reading for Life year), but both students did so at the end of year three. Brydie scored just below the Lexile basic band mean for year three, and Oliver scored just above the basic band mean and continued to progress in Lexile level in year four. These students were accustomed to Lexile assessments, and sat these throughout the year. Their Lexile level had implications for the books they could freely choose to read

independently from the library, and therefore for these students an improvement in their Lexile score was linked to their personal goals to read more complex texts. For Oliver in particular, this competitive element appeared to be motivating as he reported keen excitement about improvements in his Lexile level. Yet both Oliver and Brydie were also conscious that their Lexile levels put some reading material out of their reach. This limiting feature of the Lexile Framework is critiqued by Krashen (2001) and Carter (2000) who argue that this system restricts students from borrowing more challenging books related to their interests, and also discourages students from reading easier texts for pleasure.

At the beginning of 2015, Lochie was reading at an age appropriate level based on the PM Benchmark guidelines (Smith et al., 2009). However, this was well below the expected level for student at the end of year five/beginning of year six in the Victorian Government schools system ("Benchmarking ready reckoner", n.d). Lochie's teacher explained that he struggled to read unfamiliar text types, suggesting that his ability to transfer reading skills to new contexts was still developing. Without a measure of independent reading comprehension it is difficult to compare Lochie's post-intervention reading achievement with Government school expectations for his year group.

Georgia exited Reading Recovery reading approximately two months below the expected level for a student part of the way through year one in a CEOM school, and continued to progress in reading book level subsequent to her intervention. Finn exited Literacy Support reading approximately six months below using the PM Benchmark guidelines (Smith et al., 2009), but over one year below based on expected levels for a year three student in the Government system ("Benchmarking ready reckoner", n.d). Unlike Georgia, Finn did not make progress in his reading book level subsequent to his intervention. In the following year, he sat the On Demand Reading Comprehension test (Victorian Curriculum & Assessment Authority, n.d.), exhibiting significant difficulties on this measure. One possible reason for his challenges is that this timed, online, independent assessment with a range of text and question types (O'Mara, n.d.) differs from typical classroom instructional experiences in that it requires students to transfer and apply their literacy skills and knowledge without teacher or group scaffolding. In contrast, when students are assessed with a running record, they read aloud one to one with a teacher—a more common and familiar practice in primary classrooms.

As highlighted in the literature review and chapter five, running records are an effective formative assessment tool for capturing young children's emergent reading behaviours. In

the context of this thesis, it is likely that they provided valuable information about students' oral reading and early reading strategies to inform classroom and intervention teaching. They also enabled students' instructional book levels to be tracked over time. However, Sandy Bay School's use of a running record kit as its primary summative assessment tool for older students' reading achievement appears to be problematic, as running records do not measure the more complex demands of reading in year three and beyond (Care et al., 2011; Clay, 2002; Ministry of Education, 2006). Clay herself explains that:

> If running records are used with older readers, there should be a special reason for taking them. They are excellent for recording the early phases of literacy acquisition, but before long what the reader is doing becomes too fast and too sophisticated for teachers to observe in real time (2002, p. 73).

Each of the three students—Brydie, Oliver, and Finn—for whom both running record and independent comprehension assessment data was available, performed at higher levels on their respective running record kits than with their On Demand (Victorian Curriculum & Assessment Authority, n.d.) or Lexile (Scholastic, n.d.) assessments. The delivery method of these assessments provides some insight into how and why this discrepancy in assessment information may occur. These comprehension tests are designed to assess students' ability to read and then answer written questions on texts independently, without scope for teacher scaffolding or support. In contrast, running records are taken in a one-to-one setting with a teacher, who has some scope for prompting (Clay, 2013), and rephrasing or re-asking comprehension questions (Smith et al., 2009). Given that running records were not designed as a summative assessment, or as a measure for older students, I posit that in this study, the data generated by the running records kits likely provided an over-estimation of these older students' achievement in relation to year level expectations.

In addition to using assessments for tracking students' progress and comparing their achievement in relation to year level expectations, teachers from both schools also used formal assessment data, in combination with other forms of assessment, when reporting to parents on student achievement. At Sandy Bay School, parents discussed the importance of this, and noted that reporting needed to be clear and "honest". They shared how this data supported them to understand the degree of their child's literacy difficulty, and helped them know whether to put additional supports in place. Each of these three parents felt that this information had not been clearly disseminated at some point in their child's school career.

7.2.2   Observations of changes in students' literacy skills and behaviours

As discussed in chapter five, in this study participants appeared to prioritise formative observations of changes in students' literacy skills and behaviours, and in their affective stances towards literacy engagement, over the data generated by formal assessments. In the individual case studies, discussion of observed changes comprised the majority of participants' interview responses about the individual students' literacy improvement. Reading fluency (prosody), sight word recognition, decoding, comprehension skills, written expression, grammar, and spelling were variously mentioned as improvements over the course of the students' interventions and beyond. Teachers generally demonstrated a solid understanding of students' literacy strengths, challenges, and next learning steps; whilst students' observations revealed that they were self-aware learners who could discuss their own literacy progress. Parents provided longitudinal observations of their children's literacy development, allowing an insight into the students' literacy experiences prior to their intervention year/s.

Participants' observations of students' literacy improvement were made within instructional and home contexts, making them contextualised to students' classroom and intervention learning experiences, and to their home and community literacy practices. These kinds of informal, observational assessment often achieve high context validity, as students' performance is assessed as they engage in their regular literacy tasks and practices (Cambourne, 1988; Clay, 2013; Y. Goodman, 1982; Tierney, 1998), which have the potential to relate to their interests and funds of knowledge (Kamler and Comber, 2005).

7.2.2.1 Students' understandings

In this study, students' own observations of their literacy skill development revealed that all continued to find reading difficult, despite their progress through and beyond their interventions. Lochie provided a typical response when saying "Sometimes I can't understand words, I don't know how to pronounce them and stuff" (interview two). When talking about their progress in word reading, students were cautious. For example: Georgia noted that she had improved "a little bit, at the start of words" (interview three); David clarified that small words were harder to sound out (interview two); and all students could readily think of types of words that they found difficult to read. All students described their ideal literacy teacher as someone who would help them with these word level difficulties. For example, Georgia explained that such a teacher would "just help them sound it out" (interview three).

These students' perceptions appear to align with cognitive research, which has identified that nearly all students with literacy difficulties exhibit underlying challenges with decoding (e.g. Cunningham & Stanovich, 1997; Pressley & Allington, 2014; Vellutino et al., 1996). Sociocultural scholars take a different position, with some implying that the identification of word level difficulties, and instruction to improve in this area, relate to a reductionist and autonomous view of literacy (e.g. Street, 2003; Woods & Henderson, 2002). A sociocultural reading of the case study students' word-level difficulties might regard their self-assessments as a product of intervention instruction that emphasises the development of skills rather than diverse literacies practices (Brown, 2010; Lankshear & Knobel, 1998; Luke, 2003; Luke et al., 2003; Street, 2003; Woods and Henderson, 2002). As a researcher committed to presenting students' emic experiences of their literacy interventions, I am reluctant to reduce these students' perceptions of their difficulties as a conditioned response to the instruction they received for two reasons. Firstly, the data shows that each of the students learned in home, school, and intervention environments, which variously emphasised literacies in context and included a rich range of literacy practices. Secondly, in their interviews, the students articulated their word-level challenges alongside discussions about their multiple contextualised uses and purposes for print and other literacies, sharing ways in which their personal literacies related to both autonomous and ideological understandings of what literacy is. Instead of dismissing students' discussion of their difficulties as an outcome of intervention and/or instructional pedagogy, I propose that their self-awareness of word-level difficulties may reflect these students' actual experiences. In addition, I suggest that it is reasonable for students to voice their difficulties in this area, given that decoding challenges have long reaching effects, causing difficulties with comprehension, vocabulary development, writing, and spelling (Catts et al., 2012; Klenk & Kibby, 2000).

7.2.3   Affective changes

Participants in each case study observed affective changes in the six students as they progressed through their interventions, and shared examples of their more positive stances towards literacy engagement and activities in our interviews. These affective changes were reported to take a range of forms: confidence to attempt literacy tasks; increased motivation to engage in literacy activities and practices; enjoyment of books and reading; and reading self-efficacy.

Students' discussions of their affective stances towards literacy were nuanced, and reflected some of Jang et al.'s (2015) categories of reading motivation. For example,

Lochie understood the purpose and importance of reading better after his intervention and had a better work ethic towards daily reading, but didn't necessarily enjoy reading books in the way that Oliver, David, and Brydie did. Brydie, Lochie, and Oliver were more confident readers after receiving support, but remained conscious that they weren't 'good' readers, and showed this by identifying some of the more complex texts that their more able classmates could read. Oliver, David, and Brydie, together with their parents and teachers, described the ways in which they had taken on a reader identity (McCarthey, 2001), with participants in these three students' case studies sharing examples of their favourite authors and text types, and their increased engagement in reading for pleasure.

Of the case study students, Georgia and Finn entered their respective interventions with the most marked negative affective stances towards reading books, evidenced through their: lack of confidence in, motivation towards, and enjoyment of reading; and dramatic avoidance behaviours such as lying on the floor and crying when asked to read. During our final interviews, these students' parents and teachers observed that they were more confident about, and engaged in fewer avoidance tasks around, attempting reading tasks. Yet this improvement appeared to be particularly fragile as Georgia and Finn still found reading very difficult and were conscious of the wide gap between their own literacy capabilities and those of other students.

Improving students' reading confidence and motivation was a common goal shared by both parents and teachers, and, as discussed in earlier chapters, this was one purpose of the Reading for Life program at Sacred Heart School. Stanovich (1986) describes the Matthew effect—a spiral in which students who read more, make better progress in reading, resulting in increased confidence and self-efficacy; whereas conversely, students who read less, make poorer progress, exhibit negative affective stances, and drop exponentially further behind their peers. The goal of increasing students' affective stances towards reading generally aims to get them onto this upward spiral of learning to read. Yet when the effortful nature of reading for students with pronounced and complex literacy difficulties is considered, aiming for students to feel wholly confident about reading, or keenly motivated to read, may be unrealistic. In this study, the case study students' qualified self-beliefs about their literacy achievement, strengths, and challenges are in line with Linnenbrink and Pintrich's (2003) statement that students' "self-efficacy judgements should be matched or calibrated to reflect their actual performances and accomplishments" (p. 131).

In addition to literacy-specific affective changes, participants also discussed wider affective changes for some case study students. For example, many adult participants noticed that as the case study students experienced success in their respective intervention contexts, this confidence transferred to other parts of their lives. Yet in Georgia's case, there was also a downside to attending Reading Recovery, despite achieving success there. Amy (Georgia's mother) explained that Georgia felt that she was missing out on classroom activities when at Reading Recovery, and her comments echoed the ideas of the staff at Sandy Bay School, who believed withdrawal interventions made students feel different. For Finn and Lochie's, school and personal achievements were understood to have increased their life-wide self-esteem. Participants in these cases hypothesised that these boosts had supported Lochie to feel more confident and engaged with literacy and learning, and Finn to feel better about his learning differences.

7.2.4 Literacy practices
7.2.4.1 Advantages and challenges of the Literacy Practices Questionnaire

A goal of this study was to explore how improved literacy skills gained through an intervention related to the ways in which students used literacies in their daily lives. Information about students' engagement in a range of common literacy practices was gathered through the LPQ, a tool designed to gather comparative information about students' literacies, and the ways in which these changed over time. The LPQ yielded a great deal of information about how students used a range of literacies, and enabled data to be gathered on less formal practices, including sending texts, reading the speedometer, and finding information in junk mail. Whilst the LPQ gathered data on students' frequency of, and positivity towards, engaging in each of the 21 practices, the most valuable data elicited from this tool were the examples of how students had recently engaged in each practice. I noticed that such examples of students' literacy practices were not often discussed in response to the open-ended interview questions, and that the LPQ prompts appeared to support participants to recall a range of literacy practices and events.

I found 'measuring' literacy practices challenging and believe the LPQ designed for this study could be improved. The items on the Likert scales used simple language and nominal items such as "not very good" and "once a week" rather continuous items such as the numbers on a 10 point rating scale. The frequency scale posed difficulties for students, and, when comparing each student's LPQs with their parent's and teachers', it appeared that younger students in particular did not discuss less recent practices. Students did not use the negative categories in the feeling scale very often, and they may have been affected by the scale biases described by Marsh (1986), or influenced by a desire to present

themselves as 'good' or competent students (Rennie, 2016). However, at times, students did voice less positive perspectives. Some students pointed out the inadequacy of the positivity scale through examples and explanations describing the subjective link between their feelings and the context of specific literacy practices: Brydie reported feeling sad about listening to a story, explaining that their current class read-aloud text was a war story; Oliver described feeling sick when reading a junk food menu; and several students observed that their positivity towards reading a book depended on how good the book was. Understandably, there were differences in the ways in which students, their parents, and their classroom teachers perceived students' engagement in literacy practices. In particular, the adults in the study tended to report that students felt great about engaging in digital practices, whereas students' responses to this category were more qualified. As noted in chapter three, using the LPQ with parents, teachers, and students enabled a wider range of examples, and parents' and teachers' data were used for this purpose rather than to verify students' responses.

The design of the LPQ drew from other tools used to explore literacy growth with adult learners (Purcell Gates et al., 2004; Reder, 2011), in studies that gathered data on changes in participants' uses of literacies as evidence of their literacy growth. However, the case studies in this thesis revealed that these younger students were not necessarily in control of how frequently they engaged in many activities, meaning that their environment rather than their own impetus determined how frequently they engaged in some literacy practices. This differs from the findings of researchers (e.g. Perry & Purcell-Gates, 2005; Purcell-Gates et al., 2004) investigating literacy practices changes in adults; for whom changes often indicated agency. In addition, students' voluntary changes in practices were not necessarily evidence of literacy growth, as the examples revealed that some practices were discontinued due to a lack of interest or changing tastes. Yet despite the design challenges discussed in this section, the LPQ enabled the collection of a rich, descriptive data set on what these students did with literacies at home, in the classroom, and in the community.

7.2.4.2 Students' practices

The LPQ examples revealed that all students were active users of literacies and used print, oral, and digital communications in purposeful ways. The participants gave examples of students' digital tastes and habits, their practical activities such as cooking, and fixing machinery, their text preferences, their homework practices, and their incidental literacies such as reading signs in the community and adding items on household shopping lists. Further examples illustrated the interconnectedness of literacies, for example, Finn and his

mother Kirsty relayed how Finn's scrap metal collection related to his financial goal of saving for an iPad, the cost of which he checked using a junk mail catalogue. Some examples also indicated increasing complexity with which students engaged in particular literacy practices: by our final interviews, Georgia had shifted from photographing everything in the house, to planning, composing, and taking glamorous selfies; and David had begun word processing his homework in addition to his original digital repertoire of Minecraft and educational apps. The illustrative examples of students' literacy practices suggest that students' participation in a literacy intervention had not led to a narrowing of their uses, or understandings, of the purposes of literacy, and this finding provides an alternate perspective to the sociocultural critiques of intervention programs discussed in the literature review (Barnes, 1996; Lankshear & Knobel, 1998; Woods & Henderson, 2002).

Because the students had been in interventions to improve their print literacies, examples of books they had read recently were of particular interest. In their final interviews, Oliver and David reported reading books that were longer and had more complex vocabularies and plot structures than the texts they discussed in their first interviews. These students had the highest entry and exit assessment levels, and it appeared that their improved literacy skills had transferred to their reading of more complex media both at home and in the classroom. Both of these students enthusiastically reported writing about topics relevant to their life worlds, including Oliver's report on an ANZAC relative, and David's writing about motorbikes. Lochie similarly reported reading more complex texts in his final interview, and writing on topics that were important to him, though his case's lack of assessment data made it difficult to relate these changes in practices to his literacy skill development. Brydie discussed reading and writing a range of texts at length, but the single phase of her case study meant that change over time could not be explored. Students' increasing independence when engaging with a range of texts was reflected in the LPQ and interview data for Lochie's, Brydie's, David's, and Oliver's LPQ. For example, at our final interviews, these students all reported reading books without adult support, and their parents had noticed a range of occasions when they spontaneously read everyday texts without prompting or help.

Finn and Georgia exhibited the largest challenges in acquiring print literacies as evidenced through their entry, exit, and subsequent assessment data. Both of these students engaged in a range of purposeful literacy practices with clear strengths in the performing and visual arts. However, their improvement in literacy skills over the course of their interventions

appeared to have had limited transfer to their literacy practices. For example, both students usually required the support of adult or technological mediators to access texts, and in Finn's case, to write for an audience—such as when creating his magic show running lists. Finn asked his parents to read information to him when out in the community and relied on predictive text functions on the computer; whilst Georgia listened to others read rather than voluntarily reading herself. In addition, Georgia required a great deal of adult encouragement both at home and school to complete literacy tasks. These students could not always recall or discuss texts they had read recently, and in our first two interviews, Georgia found it difficult to discuss the content of familiar texts from her own school reader bag. At our second interview, Finn shared the plot of a text he had recently enjoyed and, whilst it was a positive experience to hear him speaking enthusiastically about a book, I was conscious that this text was written and levelled for a much younger audience. Both of these students enjoyed writing, though Georgia preferred creating texts when she could choose the genre, content, and purpose. It was clear that Georgia and Finn understood the purposes of literacies, but found reading formal and informal texts difficult, which impacted on the extent to which they could independently engage in home, community, and classroom practices that required print literacy skills.

Several adults explained that finding the right kind of books for students was pivotal in engaging them in the practice of reading, linking to the well-established literature identifying text selection as a key factor in connecting students with reading (e.g. Cremin, Mottram, Collins, Powell, & Safford, 2009; Fink, 1995; Rennie, 2016; Worthy et al., 2001). In this study, some of the participants explained that the book topic was important, whereas others noted that texts needed to be manageable and achievable. Lochie, Brydie, Oliver, and David all reported finding genres and authors that they enjoyed and were motivated to read. However, Kirsty provided an interesting perspective on finding the right books for Finn, explaining that whilst he had many books relating to his favourite activity—magic—Finn was not actually able to access these texts independently and so rarely chose to look at them. Instead, his preferred print texts were those that were well within his assessed reading comprehension level. As with the situated model discussed in chapters three, five, and six; finding the right book appeared to be one component of literacy learning which worked in combination with the other factors but did not enable change in and of itself.

The LPQ developed for this study provided rich and interesting examples of students' literacy practices. Each of the student's data sets suggested increased complexity in some

of their practices over the relatively short time phase of the study. Yet a transfer of intervention skills and knowledge to increasingly complex print literacy practices appeared to be restricted to those students who achieved close to year level expectations on age appropriate reading assessments, which was an unexpected finding that I will discuss in the section on overall literacy development.

7.2.5 Oral language data

A comparison of the length of students' responses to the qualitative interview questions showed some support for a connection between oral language and literacy competency (Gee, 2015; Scarborough, 2009; Shapiro et al., 1990; Snow, 1991), as the students with higher entry and exit literacy assessments were also more articulate in their responses.
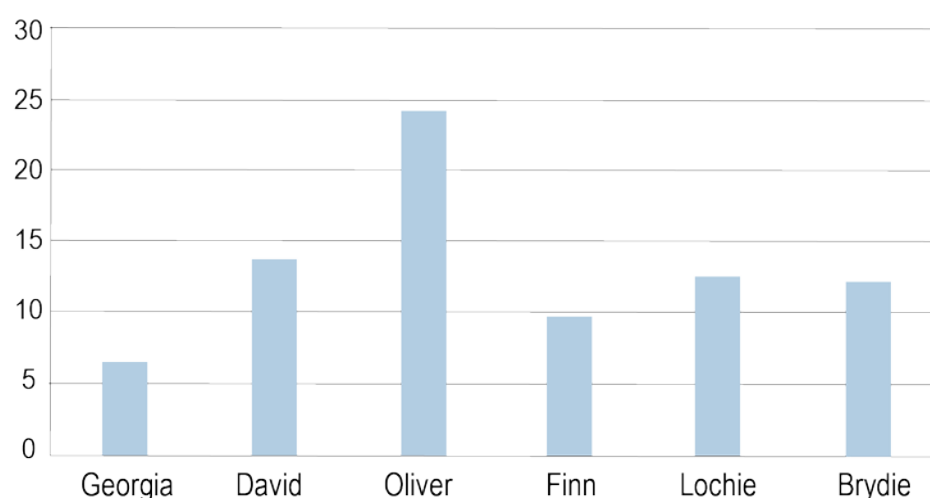
Figure 7.1. Case study students' mean number of words per interview response.

Figure 7.1 shows students' mean number of words per response across our interviews. These data suggest a relationship between students' expressive language and other dimensions of their literacy development. I draw attention to this oral language data as it is possible, as Gee (2015) argues, that oral language differences underpin these students' literacy difficulties and differing literacy outcomes. Caution is needed in interpreting this small data set, as it is constructed from interview data rather than a particular measure of oral language competency or from more contextualised language samples of students talking about daily events or subjects of interest to them (e.g. Brown, 2010).

Oliver and David, who demonstrated higher assessed literacy achievement, more complex print literacy practices, and positive affective stances towards print literacy tasks also spoke at more length in their interviews. In contrast, Georgia and Finn, who exhibited lower achievement and less progress in these areas, spoke less, which may have been related to their identified memory and in Finn's case, auditory processing difficulties. One

explanation for these differences in response length may be that students who had made more progress in, and felt better about engaging in, print literacies, had more to say about this topic. Another interpretation is that students' interview responses were reflective of their metacognitive skills, which in turn correlate with student achievement (Hattie, 2013). For example, Oliver and Thomas appeared to be more proficient at reflecting on their own learning, as they were able to give specific and detailed examples of literacy areas they found difficult and in which they had improved. One further possibility is to perceive silence, and short, non-committal responses as data in themselves, suggesting, particularly in the case of Georgia, ideas and thoughts she did not wish to share.

7.2.6 Overall literacy development

This section explores the ways in which changes in literacy assessment data, affective stances, observed skills and behaviours, and practices interacted within and across the six student case studies. These four dimensions reflect a socio-cognitive orientation to literacy development, and utilise a range of formal and informal measures as valid evidence of literacy growth. This broad conceptualisation of literacy development is in line with Afflerbach's (2016) recommendations for reading assessment, which incorporate formative and summative, and cognitive and affective, evidence of reading growth. The participating teachers in this study demonstrated a shared understanding that the primary purpose of assessment was to inform teaching and learning, and utilised formal and informal tools to do so.

Whilst an aim of this thesis was to explore literacy development in broader ways than simply changes in assessment results, students' initial assessment data were found to be predictive both of their final assessment results, and also of their broader literacy development, as evidenced through changes in affective stances, practices, and observed skills and behaviours. One obvious reason for this is that the higher achieving students had less progress to make in order to be achieving at levels close to those expected for their age or school year level.

Participants' observations of students' literacy skills and behaviours, and of their affective stances towards literacy formed the majority of their interview responses about the students' progress and achievement. Relationships between students' affective stances and the other dimensions were identified in the literacy development data in this study as well as in the research literature. In this study, the students who were the most positive, confident, and motivated about engaging in print literacy tasks were also those who demonstrated increased complexity in print literacy practices and in assessed reading

achievement, concurring with the findings of Afflerbach (2016), Chapman et al., (2000), Morgan et al., (2008), and Wigfield and Guthrie (1997). Qualitative observations of students' literacy skill improvements generally related to their assessment, affective stances, and literacy practices data though these observations were difficult to interpret at times, as without some formal assessment data it was difficult to gauge the extent to which students were achieving in relation to year level expectations.

The following section explores the literacy development factor from each of the individual case studies. Figure 7.2 shows students' literacy development factors from their individual situated models (as displayed and discussed in chapter six) on a continuum. The metaphor of a literacy trajectory is used to discuss students with more and less successful overall literacy development, when considered in relation to their intervention starting points and to year level expectations.
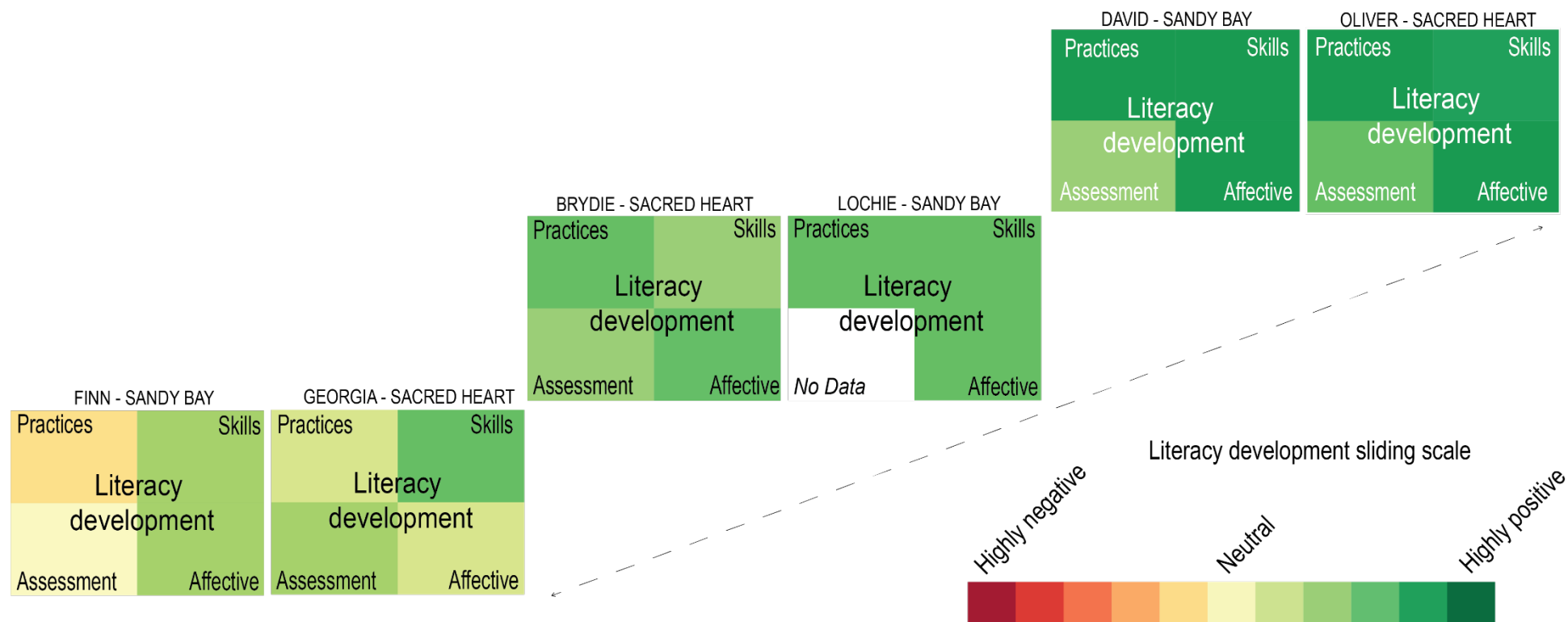
Figure 7.2. Case study students' literacy development, on a continuum from less to more successful literacy trajectories.

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Figure 7.2 shows that most students' development through and beyond their interventions varied from mildly to highly positive, and that only Finn made no progress or regressed in some of the dimensions.

This figure illustrates that David and Oliver demonstrated strength in, and/or achieved significant change across, all four literacy development dimensions, including attaining assessed literacy levels close to those expected for their year groups. These students had the most successful literacy trajectories in that they came close to catching up to the expected levels for their year group, not just in assessment data but in their literacy skills, affective stances, and print literacy practices. As noted earlier, these students had less ground to make up than some of the other students in this study. These two case studies indicate possible rationales for schools' provision of literacy interventions for students with relatively high entry levels like David and Oliver—as without these intervention opportunities, these students may have made slower progress and fallen further behind their peers. Lochie and Brydie also achieved change across many elements, though these students' cases had insufficient assessment data to evaluate their achievement in relation to either their literacy practices or to year level expectations.

Georgia made gradual to moderate progress across each dimension, whereas Finn made some improvements in literacy skills and affective stances, but did not continue to progress in reading book level subsequent to his intervention, and exhibited serious challenges in age-appropriate assessments. Finn also regressed in his independent uses of print literacy at home and in the community. Georgia and Finn continued to exhibit difficulties through their literacy assessments, skills, and behaviours, and to experience fragility in their affective stances. Participants suggested that Georgia's improved skills and achievement were beginning to transfer to some classroom and community practices. For example, she was experiencing success when writing at school and home, and Amy (Georgia's mother) noticed she had started to read signs when out in the community. However, Finn's improved skills had not yet transferred to the ways in which he used print literacies in his daily life, and Kirsty (Finn's mother) described how he was increasingly reliant on literacy brokers to mediate the print literacy demands of his home and community literacy practices and activities. Both Georgia and Finn had achieved personal successes through their progress in reading book level, and improvements in literacy skills and behaviours. Nonetheless, when their achievement was compared with the expectations for their respective year levels, and when participants' reports of their practices, skills and behaviours, and affective stances are compared in relation to those of their classmates, one

could also argue that these students had less successful literacy trajectories in comparison with the other case study students.

Figure 7.2 also illustrates that in each school setting there were case study students with more and less successful literacy trajectories. This highlights the finding discussed earlier that neither the school setting nor the intervention was the dominant enabling factor, rather that these learning opportunities interacted with students' individual differences to create particular trajectories.

One key question explored in this thesis was whether increases in students' literacy skills gained during their intervention programs enabled them to do more with literacies outside the intervention setting. Connections between these dimensions have been discussed in the individual students' case studies in chapter six, and in the literacy practices section earlier in this chapter. I had initially hypothesised that increased complexity in contextualised literacy practices may not be evident following a literacy intervention, as Lankshear and Knobel (1998), Luke et al. (2003) and Woods and Henderson (2002) contend that the decontextualized and skills-based focus of intervention programs means that students do not transfer their skills to wider settings. However, in this study the assessment and LPQ data sets suggested that students' achievement on age-appropriate summative assessment measures was in fact linked to increased complexity in the ways they used print literacies in their lives. In exploring the interplay between these dimensions, I drew on the work of literacy assessment scholars, in particular Pearson, et al. (2014) and Afflerbach (2007, 2016). I discussed Pearson et al.'s concepts of transfer and distance from the instructional setting in the literature review, and in this section I utilise these ideas to theorise a relationship between students' assessed achievement, and their uses of literacies.

Highly contextualised
Distant from the instructional context
Informal

Independent literacy practices

Mediated literacy practices

Home/community/playground observations

Most distant from the instructional context and requiring the most transfer and application.

Classroom/intervention observations   *Closest to instructional context and requiring least transfer.*

Running records
Observation survey

Specific skill tests

Lexile assessments

On Demand testing

NAPLAN

Highly abstracted
Distant from the instructional context
Formal

Figure 7.3. Transfer of literacy skills and knowledge from the instructional setting to abstract and contextualised methods of conceptualising literacy development.

Figure 7.3 uses a continuum to plot the different forms of literacy development evidence discussed in this thesis. It ranges from highly abstracted, formal assessments such as those used to compare the achievement of populations (predominantly located in the cognitive paradigm), to highly contextualised practices (predominantly located in the sociocultural paradigm). I have used Pearson et al.'s (2014) concepts of transfer and distance from the instructional context to theorise that literacy development evidence from each end of this continuum is similar in that both are distant from the instructional context, and both require significant transfer and application of acquired skills to new texts and situations. This diagram proposes a framework for understanding how these theoretically opposed methods of understanding literacy development are interrelated.

The instructional setting is located in the centre of this continuum. Like Salinger (2001), I have located constructivist assessments—in which teachers ask students to demonstrate their knowledge and skills using scenarios similar to students' classroom activities, such as running records and the Observation Survey (Clay, 2013)—close to the instructional context, and similar to classroom and intervention observations and work samples. Like Pearson et al. (2014), I propose that relative distance from the instructional context is a likely explanation for students' differing results when using different kinds of literacy assessments. In this study, these differences in distance were most evident in Finn's, Oliver's, and Brydie's divergent achievement on running records and independent comprehension tests. In addition, the more formal comprehension tests required different degrees of transfer, and Figure 7.3 distinguishes between the Lexile (Scholastic, n.d.a), and the On Demand (Victorian Curriculum & Assessment Authority, n.d.) tests, locating the latter further from the instructional context as it was unfamiliar to Finn, contained a range of text types, and was completed in a standardized setting. In contrast, the Lexile assessments were familiar to Oliver and Brydie and related to their own library choices and so have been located a little closer to the instructional context.

In this study, Oliver and David demonstrated more distant transfer from their instructional contexts, in that they used their improved print literacy skills to read and write more and less formal texts in their daily lives. They were also both able to apply their skills to summative assessments: for David as a younger student this took the form of a running record; whereas for Oliver this took the form of the Scholastic Lexile Pro (Scholastic, n.d.) to assess his independent comprehension. The more distant transfer demonstrated by these students requires the independent application of learning, which is a significant outcome of literacy instruction (Afflerbach, 2016).

For Georgia and Finn, evidence of their literacy development was more closely bound to their instructional and home contexts. These students made a number of observable changes in literacy skills, and had made some attitudinal shifts, in that they were less frequently avoiding literacy tasks. However, it appeared that Finn in particular struggled to apply his literacy improvements to more independent tasks or activities, instead relying on adult support to mediate constructivist assessments, and adult and technological support to mediate and access home, school, and community print texts. Anstey and Bull (2006) explain how multiliterate students are aware of their literacies, and combine available resources to be able to achieve tasks. In this study, Georgia and Finn demonstrated

awareness of their personal literacy strengths and challenges, and Finn in particular had found multiple work-arounds to his print literacy difficulties.

In designing the LPQ for this study, I took Purcell-Gates et al.'s (2004) position that students' use of literacies in everyday life is the ultimate outcome of literacy instruction. These case study students' literacy development data suggests that interventions supported the higher achieving students to realise this outcome, but the achievement of those in greater need of intervention tended to be more closely bound to their instructional contexts. These students' skills and knowledge may transfer to more distant contexts over time, though I suggest that this process ought to be monitored rather than assumed.

Whilst dichotomous abstractions of literacy-as-skills or literacies-as-practices (Street, 2003) preclude examination of relationships between these concepts, the socio-cognitive lens utilised in this thesis enabled an exploration of their interplay for six primary aged students. Their literacy development data—evidenced across four dimensions—suggests that improvement in print literacy assessments, skills and behaviours, practices, and attitudes generally worked in symbiosis, and that higher levels of assessment achievement appeared to enable increased complexity of contextualised print literacy practices.

7.3   Mediating factors: Learning, expertise and relationships

In the preceding sections I have described the case study students' individual differences, their literacy development through and beyond their interventions, and identified more and less successful literacy trajectories. This section scrutinises the roles that learning—in particular interventions—played in these students' literacy development, and considers their individual programs in relation to the research literature on interventions. It also includes a discussion of the ways in which expertise and relationships contributed to these students' development.

7.3.1   Purpose and perceptions of interventions

In chapter four, I discussed how participants at both case study schools shared purposes for, and perceptions of, the interventions offered in their respective contexts. I explained how interventions were offered both remedially and preventatively, and were also understood by some participants to benefit students not receiving the intervention. In general, the individual case study participants' perceptions of the interventions did not differ widely from these school level findings, though Oliver's mother suggested an alternate purpose for interventions in that they took some pressure off busy parents who struggled with schools' expectations for students' home reading practice (interview one). Most parents and teachers hoped their case study student would catch up to year level

expectations in literacy, though they also acknowledged that personal progress, improved confidence and motivation were other key goals.

In each student's case study, the intervention they had participated in was described as one element amongst many that contributed to their literacy development. For all students, participation in an intervention enabled and strengthened the development of their literacy skills, and for most it increased their affective stances towards literacy tasks. All participants agreed that the intervention had a positive impact on the student's literacy learning, and also described how the students learned and practised literacies in a range of environments, including the classroom, home, and the community. This was of particular interest as often in studies of literacy interventions, the intervention program is considered to be the key factor making the difference to students' learning, and the intervention pedagogy is closely scrutinised to explain student achievement (Bradford & Wan, 2015; Center el al., 1995; Iversen & Tunmer, 1993; Schwartz et al., 2009).

7.3.2   Intervention pedagogy

The pedagogical content of all three interventions included the development of knowledge and skills, and the application of these when reading and, in Literacy Support and Reading Recovery, when speaking and writing. From a cognitivist perspective, one would expect to see students progress through participation in literacy interventions if skills such as phonological awareness, decoding, and reading and writing continuous texts were included (Brooks, 2007; Center et al., 1995; Chapman & Tunmer, 2011; Slavin et al., 2011; Snow et al., 1998). From a sociocultural perspective, one would expect to see few life-wide changes in students' uses of literacy as they progressed through such interventions, due to their focus on skill development rather than the contextualised uses of literacies (e.g. Freebody, 1990; Hiebert, 1994; Lankshear & Knobel, 1998). Yet these generalisations imply that the interventions in themselves hold the balance of power in ensuring students' learning success, and the persuasive consensus is that learning occurs in a range of contexts rather than solely in formal learning settings (Bronfenbrenner, 1977; Bronfenbrenner & Ceci, 1994; Heath, 1983; Moll et al., 1992). These dichotomous theoretical generalisations did not encapsulate the content or delivery of the interventions explored in this study, which contained elements of meaning-centred, cognitive and, to a lesser extent, sociocultural pedagogies. And, importantly, learning did not occur only in the intervention, or at school, as students engaged in a variety of more and less formal learning opportunities at home, school, and in the community. I hypothesise that philosophical or theoretical concepts of what an intervention is might differ from the

reality of intervention provision for real students in real schools, as the findings in this thesis demonstrate that these intervention programs did not operate in isolated vacuums. In the following section, the case study students' specific Literacy Support, Reading Recovery, and Reading for Life programs are discussed with respect to their pedagogical content, theoretical underpinnings, the expertise guiding them, and the wider school and community contexts in which they were situated.

7.3.2.1 Literacy Support at Sandy Bay School

David, Finn, and Lochie participated in Literacy Support, a program that from a cognitivist pedagogical perspective incorporated all intervention elements recommended by Snow et al., (1998). Their programs were based on the literacy needs of their respective Literacy Support classes, and included both skill development, and the use of these skills when reading and writing a range of texts. Sandy Bay School's streamed model would likely be criticised by more meaning-centred and socio-culturally oriented researchers who note that lowest-stream, withdrawal, and remedial interventions and classes often provide poorer learning opportunities than those offered to mainstream students (e.g. Allington, 2011; Tancock, 1997; Woods & Henderson, 2002). However, unlike the full-time remedial classes described by Allington, Literacy Support was not students' sole learning opportunity, as each also engaged in diverse learning experiences including participation in other school subjects, home tutoring, reading to adults, and engagement in a range of oral, practical, and digital literacies.

The case study students at Sandy Bay School showed different patterns of literacy development, despite participating in Literacy Support classes following the same general principles. In the year following their Literacy Support programs, David had made a successful transfer to a general home-group class and Lochie was learning alongside his peers in a more advanced Literacy Block class. Five months after concluding Literacy Support, both of these students had sustained and were using their improved literacy skills to read more complex texts independently for enjoyment and/or interest, and to read and write a wider range of everyday texts. In other words, they were independently using the skills they had developed through their learning opportunities, including Literacy Support, in 2014. In contrast, Finn participated in the same Literacy Support model, and, given his entry level data and his history of struggling with print literacy, was in the most need of extra assistance. Like the other two Sandy Bay students, Finn participated in home tutoring and was very well supported to engage in a range of contextualised literacies at home and in the community. Finn made accelerated progress in reading book level in

2014, but exited Literacy Support reading at a book level approximately one year below his peers, and with identified difficulties in reading comprehension and spelling. Finn's literacy intervention outcomes and literacy trajectory subsequent to his intervention were qualitatively and quantitatively different to those of Lochie and David. This appeared to be related to individual and extrinsic factors in addition to Literacy Support, including, but not limited to, patchy Literacy Block instruction in term one of 2015.

Expertise was described as a key contributor to these students' literacy development, though an examination of the data showed that each student's access to uninterrupted expertise differed. All three of the students were reported to have benefitted from Karen's literacy expertise, and the participating teachers also valued the additional learning they had gained from Karen's literacy coaching and professional development. All parents and teachers believed that Karen's departure constituted a loss in expertise at Sandy Bay School. Each of the students accessed outside expertise in the form of a home tutor, but David's home tutoring was sustained over time, whereas Finn and Lochie's parents had not continued with tutoring, though both were considering resuming it. This meant David benefitted from uninterrupted outside expertise and learning, whereas Finn in particular had experienced interrupted learning both to his home tutoring and his classroom learning at the start of 2015.

Relationships, including recognition of talents, were found to impact on David, Finn, and Lochie's engagement and motivation towards literacy and wider learning. These students reported liking Karen (their Literacy Support teacher for most of 2014): they variously described her as "nice", "kind"; and explained that Literacy Support was "fun". Their parents and teachers agreed that Karen's relationships and communication with students, parents, and colleagues were excellent. David had a particularly good relationship with his 2015 classroom teacher and loved attending his home tutor program. Similarly, Lochie was known to and liked by his 2015 teacher, and appeared to have developed considerable confidence and self-esteem through his new responsibility as a house captain. In contrast, Finn had had less Literacy Block instruction in term one of 2015, and consequently his Literacy Block teacher spoke of not yet knowing him well, and appeared to have not yet formed a solid relationship with him. As discussed in chapter four in relation to the State and school level data, relationships are pivotal to effective learning, particularly for students at risk of being poorly served by formal education (Bishop & Berryman, 2009; Ladson-Billings, 1995; Macfarlane, Glynn, Cavanagh, & Bateman, 2007; Moll et al., 1992; Rennie, 2016). Yet in 2015, despite inconsistent school literacy instruction and the

cessation of home tutoring, Kirsty reported that Finn was developing life-wide confidence and a sense of self-worth through his chosen performance literacies, and it appeared that he had found alternate connections in these areas.

7.3.2.2 Interventions at Sacred Heart School

Georgia participated in Reading Recovery, a program based on meaning-centred principles and emphasising the development of effective reading behaviours and strategies through reading and writing short texts. In the literature review, I discussed examples of how Reading Recovery has been critiqued both from sociocultural (Barnes, 1996; Dudley-Marling & Murphy, 1997; Lankshear & Knobel, 1998; Woods & Henderson, 2002) and cognitive perspectives (Centre et al., 1995; Chapman & Tunmer, 2011). However, when considered in relation to Georgia's case, these critiques do not appear to capture her individual and situated Reading Recovery program. For example, Centre et al. and Chapman and Tunmer might argue that Georgia would have fared better in a program reinforcing letter-sound correspondences through synthetic phonics instruction. However, the holistic focus of this inquiry revealed that Georgia had been exposed to a great deal of explicit, synthetic phonics instruction in 2014 (her first year of school). She was provided with extra phonics practice with a teacher aide when she struggled to acquire these skills, and also participated in digital technology activities to further reinforce her phonics acquisition. Maria (Reading Recovery teacher) gave examples of the ways in which she incorporated phonics in Georgia's Reading Recovery lessons, such as using the THRASS chart (Davies & Ritchie, 1996), making and breaking words, constructing words with magnetic letters, and using Elkonin boxes when writing. Maria believed that Georgia had difficulty with letter-sound acquisition despite significant explicit phonics instruction, rather than because of insufficient phonics instruction. In Georgia's case, her learning trajectory appeared to be affected by a range of factors, rather than simply the type of classroom or intervention instruction she had received.

On the other hand, sociocultural scholars like Lankshear and Knobel (1998) and Barnes, (1996) might argue that Georgia received narrow and skill based literacy instruction in Reading Recovery, which did not relate to her wider classroom and home literacies. However, an examination of Georgia's learning shows that she also continued to participate in classroom literacy instruction in addition to her Reading Recovery program. Potential disconnects between these settings were minimised by regular communication between the teachers and through Maria's part-time teaching in Georgia's classroom literacy program. In addition to the phonics discussed above, Georgia's classroom teacher

taught literacy through writing about meaningful topics, literacy games and activities, dramatic play, and a range of other experiences. Print literacy was also one of a number of valued literacies in Georgia's home and wider extended family settings.

Despite her unsuccessful discharge from the Reading Recovery, Georgia's intervention learning appeared to be an enabling factor which supported her to improve her print literacy development, though at a slower rate than is usually aimed for in the CEOM schools' system. From Maria's and Amy's (Georgia's mother) perspective, Reading Recovery was a success for Georgia as it helped her to improve in a range of skills, and to read and write more complex texts.

Georgia's poor health and related absence from school in term one 2015 were factors which all adults in her case study identified as impacting negatively on her progress in Reading Recovery. These appear likely, as school attendance has been shown to impact on intervention success (McNaughton, 2011), but do not appear to be causal factors, as Georgia's literacy difficulties were evident early in her prep year, well before her tonsillectomy and subsequent malaise.

Georgia also appeared to be supported by positive relationships through and beyond her intervention. She was well known to her classroom and Reading Recovery teachers, who taught her in prep and in year one. Both teachers were experienced, communicated regularly about Georgia, and were able to draw on the wider expertise of CEOM staff and services. Amy reported regular contact with the school and good relationships with Georgia's teachers, and her extended family were also closely connected to the school and involved with Georgia's learning. All adults in the study described Georgia's positive relationships with her teachers, though Georgia herself did not confirm or discount this.

Reading for Life was a shorter and less intensive intervention, with a narrower instructional focus than either Reading Recovery or Literacy Support, as it focused primarily on reading. This program taught and reinforced decoding rules and sight words, in a one-to-one environment designed to boost self-esteem and encourage a positive attitude towards reading. Its 15 weekly sessions, with the same content for all students, might be expected to have a smaller effect than more intensive and differentiated interventions, yet Reading for Life was not students' sole or main literacy learning opportunity, as students also engaged in a range of other school, home, and community literacies. The specific foci of Reading for Life appeared to help Oliver and Brydie to

consolidate their literacy skills, and enabled Oliver to develop, and Brydie to strengthen, an enthusiasm for and interest in books.

Oliver's and Brydie's primary learning context was their classrooms, where they were taught by experienced teachers who knew them well. All participants in Brydie's and Oliver's case studies reported very good student-teacher, and home-school relationships. In addition, Reading for Life's explicit focus on relationships also provided students with individual attention from another adult, resulting in positive connections which were a particularly enabling factor for Oliver in 2014. Expertise in Reading for Life came primarily from its developers, and the training sessions and materials they provided to the volunteers.

For Georgia, Brydie, and Oliver, their interventions were in addition to their usual classroom learning, and were part of a whole school model found to be effective (Hill & Crévola, 1999, 2005). But within this environment, students still experienced different literacy trajectories which appeared to be predicted by their more and less pronounced individual differences on intervention entry. At Sacred Heart School, the practice of offering effective ongoing learning environments with interventions as one embedded component supported each of the case study students to move forward with their literacy learning. However, this did not necessarily mean that students caught up to the expected literacy achievement levels for their respective year groups.

7.3.3 Interventions as one of many mediating factors

A consideration of the affordances of these particular interventions within their broader learning contexts demonstrates how programs do not enable literacy change in isolation, rather, they provide additional instruction to supplement existing formal and informal learning opportunities. Multiple studies suggest that interventions are more likely to contribute to long term and meaningful change when they are delivered as part of a whole school learning system rather than operating as isolated add-ons (e.g. Hill & Crévola, 1999, 2005; Jesson & Limbrick, 2013; Louden et al., 2000; Luke et al., 2003). The findings of this study support this idea, but offer an expanded conceptualisation of the processes and factors involved in achieving literacy change for students with literacy difficulties. Specifically, this thesis identifies the ways in which sector policies and funding impacted on schools' ability to deliver sustained interventions, and provides examples of how expertise, learning opportunities, relationships, and the nature and degree of students' literacy difficulties converge to foster more and less successful literacy trajectories.

In addition to identifying students' literacy strengths and challenges at the time of the interviews, participants shared information about students' next learning steps in literacy, and the supports they would need to achieve these, noting that students' future literacy progress would need to be carefully monitored. Hill et al. (2002), Snow et al. (1999), and Klenk and Kibby (2000) similarly agree that literacy interventions do not necessarily 'fix' literacy difficulties, and Klenk and Kibby point out that students with literacy difficulties rarely catch right up to their peers. In this study, the schools' intervention programs were not understood as 'one stop shops' for remediation, rather, several of the adult participants shared their understanding that ex-intervention students might also need additional help in the future. This implies that schools that are able to offer opportunities for additional interventions are likely to be more enabling learning environments for students with more complex literacy difficulties.

7.3.4   Section summary

This section has discussed key findings across the six individual student case studies, with a particular emphasis on their individual differences and their literacy development. The student cases demonstrated that literacy development was an interaction between students' individual differences and the learning on offer in their various contexts, and that this development was mediated by expertise and relationships. Four dimensions of literacy development were identified in the data: observed skills and behaviours; measured literacy achievement; affective stances towards literacy engagement; and complexity of print literacy practices. Individual differences on entry to students' interventions were the best predictor of which students would demonstrate literacy achievement close to year level expectations, one school term after the conclusion of their programs. Pearson et al.'s (2014) concepts of distance and transfer from the instructional setting were used to theorise the relationship between students' formal assessment data and their contextualised uses of print literacies. This finding of a relationship between these dimensions was possible using a socio-cognitive lens which acknowledged the value of each of these kinds of literacy development. Mediating factors enabling or constraining students' literacy development through and beyond their interventions were discussed, reiterating the earlier findings that the interventions were one of a number of factors impacting on students' literacy learning and achievement. The following section draws together the findings from across the State, school, and individual student levels to examine how literacy interventions impact on literacy development.

7.4   Overall discussion

This final section addresses the overall research question: How do print literacy interventions impact on literacy development? It synthesises the research findings from across this study's data sets and the research literature, to discuss three key points: print literacy interventions were implemented with a range of students, predominantly to accelerate their achievement, but also for other purposes; interventions were found to contribute to literacy development only in combination with a number of other learning opportunities and mediating factors; and finally, print literacy interventions were shown to support students to make literacy improvements rather than 'fixing' their literacy difficulties.

7.4.1   Intervention participants and purposes

Reading difficulties affect approximately 20% of students, with up to 5% experiencing more severe and difficult to remediate difficulties (Pressley & Allington, 2014). In this study, the online data showed that interventions to improve the literacy of students with difficulties in this area were commonly offered in diverse school settings across the State. The questionnaire and case study school findings identified that these programs were highly valued opportunities which were understood to elicit a range of benefits. Print literacy competence was regarded as crucial, and case study participants emphasised the importance of improving students' literacy early, in order to ameliorate the potential life-long and life-wide disadvantages stemming from literacy difficulties (Hartley & Horne, 2005; OECD, 2016). When designing the methodology for this study, I had expected that literacy interventions would generally be offered to the lowest performing students, who met some form of criteria such as having assessed literacy levels in the lowest quintile, or achieving one or more years below the expected standard for their school year. These assumptions were based on my own experiences as a classroom and literacy intervention teacher, and literacy coach, and relate to the intervention principle that support is targeted to those with the highest needs (Clay, 1993a).

In this study, both Sacred Heart and Sandy Bay Schools offered intervention places working to a broader criterion of students who were at risk of developing reading difficulties. As discussed earlier, Reading Recovery was reserved solely for the lowest quintile of students, whereas Reading for Life and Literacy Support were offered both preventatively—to students whose literacy levels were close to year level expectations, and remedially—to students who showed clear difficulties with literacy. Preventative interventions were offered in part to give students an achievement boost, but also because interventions were understood to have a range of purposes in addition to accelerating

students' achievement, such as improving their confidence in and motivation to read, providing non-intervention students with instruction at their level, and facilitating connections between the school and community. These wide-ranging purposes for intervention may in part account for the large number of schools that reported offering literacy interventions in the online data scan.

Notwithstanding the positive impact preventative interventions had on the higher achieving case study students' literacy development, the practice of offering interventions to many students, rather than sustained support for students with the highest needs, did cause concern. For example, Sandy Bay School offered Literacy Support to a range of students in 2014, many of whom were reading at levels less than six months below those expected for their year group. In David's case this intervention, in tandem with his other learning opportunities, supported him to make good progress across the four dimensions of literacy development. Yet Finn, despite making progress through Literacy Support, appeared to require structured school-based support for a longer period of time and this was not available. These findings suggest that despite literacy interventions being common in Victorian primary education, funding for programs and places in interventions may not necessarily be prioritised to the students with the highest needs. In earlier chapters, the practice of distinguishing between students with short and long term literacy learning needs has been discussed, and advantages and challenges of IQ discrepancy and response-to-intervention diagnoses have been outlined. Whilst I acknowledge that a label of a literacy disability may be problematic, in that it may alter teachers' expectations (Clark, 1997) or their sense of responsibility for diagnosed children's learning (Lilly, 1998), one possible benefit in identifying such students may be the provision of tagged funding for their learning needs, as exists for other students with diagnosed disabilities in Victorian Government schools (DET, 2016).

7.4.2 Interventions as one of many learning opportunities

As discussed in the previous chapters and sections, literacy interventions contributed to literacy development in tandem with a number of other literacy learning opportunities, rather than being students' primary or sole opportunity to learn and improve. In addition, interventions were found to make positive contributions to, rather than constrain, students' literacy development.

In the individual case studies, differences in students' intervention achievement were found to stem from other factors, such as their achievement on entry to the intervention, specific skill difficulties, or structural barriers to receiving sufficient support in the past; rather than

the pedagogical content of the intervention they had participated in. Nonetheless, the literacy intervention research explored in the literature review demonstrated how studies conducted from both sociocultural and cognitive perspectives commonly focus on the effectiveness of classroom and intervention pedagogies for students with literacy difficulties. Freebody (2007) and McNaughton (2011) point out the dangers of such research, noting that focusing solely on a learning variable without paying attention to the context in which it is situated may render research findings irrelevant to schools and classrooms. These authors, and Allington (2007) draw attention to the local, noting that no one intervention program will be appropriate for entire localities, rather, that interventions need to be carefully chosen to meet the needs of areas, schools, and individuals. The case study participants similarly agreed, explaining that no single program would be appropriate for all children with literacy difficulties.

Diagnoses and 'cures' did appear to be sought in both settings, and some confusions about how best to cater for students with complex and prolonged literacy difficulties were reported. For example, behavioural optometry was sought as a solution in both settings, despite research showing that it is based on incorrect assumptions about the nature of literacy difficulties (e.g. American Academy of Pediatrics, 2009; Barrett; 2009). Participants' uses of less substantiated responses to students' literacy difficulties may relate to the lack of policies, documents, or advice to guide Victorian primary schools on appropriate interventions for students with persistent literacy difficulties. Klenk and Kibby (2000) noted that inadequate advice on appropriate instruction for older students with literacy difficulties in the United States had left students vulnerable to receiving inappropriate or poorly designed interventions based on spurious theories of literacy learning.

7.4.3 Interventions as one of many factors

Learning opportunities, including literacy interventions, were one of a wider set of factors which impacted on schools' literacy intervention provision and on students' literacy development. Each of these factors—system level outside influences; school level logistics, expertise, and learning; and individual level differences—could act as an enabling or constraining influence on schools' ability to offer sustained intervention programs, and on students' literacy development through and beyond participation in such a program. The inductively derived model developed for this thesis enabled the abovementioned factors to be identified, and their influence in specific school contexts and for particular individuals to be mapped.

In this thesis, interventions appeared to offer the best opportunities for providing sustained literacy improvement in settings where they were contextualised in wider pedagogical programs. This finding relates to the goals of earlier Catholic and Government models of literacy improvement— EYLP (Hill & Crévola, 1999) and CLaSS (Hill & Crévola, 1999, 2005)—and with the findings of Culican (2004), Jesson and Limbrick (2014), Meiers (2013), Luke et al. (2003), and Snow et al. (1998). Yet the situated experiences of the case study schools in this study showed that there was significant systemic and structural support for the pedagogical contextualisation of literacy interventions at Sacred Heart School. In contrast, the Government schools' system appeared to prioritise classroom learning, leaving schools to develop their own systems and structures for interventions. Furthermore, tighter policies around assessment and pedagogy meant that teachers at Sacred Heart shared common practices and understandings, and engaged in more rigorous formal assessment of older students' literacy achievement, supported by the CEOM literacy assessment schedule. Conversely, fewer structural supports in the Government sector limited opportunities for professional development for Sandy Bay's teachers, and more open guidelines for assessment and reporting appeared to result in the inconsistent use of tools across the school, with few applications of formal comprehension assessments with older students. At times this appeared to result in inflated understandings of students' achievement, or in inadequate reporting of students' difficulties to their parents. The *Beyond the Middle* study (Luke et al., 2003) similarly found that better literacy assessment was required, and argued that policy and advice to inform schools' uses of both standardized and diagnostic assessments was needed.

This thesis found that literacy development for students with literacy difficulties occurs through a number of interconnected factors working in tandem. Two large scale studies— *Beyond the Middle* (Luke et al., 2003), and *100 Children* (Hill et al., 2002)—also highlighted the complex and interrelated nature of various factors impacting on students' literacy development. *Beyond the Middle* found that achieving positive learning progress, particularly for disadvantaged, Indigenous, and English Language Learner middle years students was complex, and influenced by both external and school level factors. In the *100 Children* study, Hill et al. (2002) caution against simplistic understandings of 'what works' in literacy instruction, arguing instead for attention to the enabling and constraining factors influencing individual children's development. The findings of this thesis also concur with those of *Beyond the Middle* with regard to the benefit of more regulated policy and funding

environments targeting literacy and learning improvement. For example, Luke et al. conclude that:

> systematic state-level middle years policies—including earmarked funding support and professional development, as well as directive policy, program and curriculum development initiatives—tended to generate better, more dedicated and consolidated interventions via a range of systematic and intervening factors than in jurisdictions without such policy emphases (p. 5).

Earlier research recommendations (e.g. Jesson & Limbrick, 2014), models of effective literacy pedagogy (Hill & Crévola, 1999, 2005) and studies of effective intervention practice (Meiers et al., 2013) appear to imply that all schools are resourced and supported equally, whereas the findings of this thesis, and of Hill et al. (2002) challenge these perceived assumptions. In this study, outside influences impacted on the logistics of offering interventions in these case study schools, as well as on literacy expertise and learning within school settings. Whilst these findings are based on the experiences of the two case study schools, they appear to also be supported by the online quantitative data which showed clear differences in the literacy intervention offerings of schools of different types. Identification of these structural factors may support schools to identify external influences on their literacy programs, pin point constraining and enabling factors, and use this knowledge to focus energy on factors which they have control over.

The individual case studies showed that these six students were all relatively materially advantaged, and each had additional learning opportunities funded by their parents. As discussed earlier in this chapter, the parents of students at Sacred Heart School funded their Catholic education, whilst the parents of students at Sandy Bay School funded private tutoring and some were considering private secondary education for their children. Nichols (2000) also found that seeking outside support was a relatively common practice in Australian schools. This implies that students who have literacy difficulties, but do not have school intervention opportunities, or additional home advantages such as private tutoring, are likely to experience compounded difficulties and disadvantages.

7.4.4 Intervention outcomes

In this thesis, the online data showed literacy interventions to be common and widespread phenomena. The findings from this data set also showed that these programs did not appear to have a simple or straightforward effect on schools' overall achievement, as no association could be established between schools' measured reading achievement and whether or not they offered literacy interventions. At Sandy Bay and Sacred Heart

Schools, literacy interventions were shown to support the case study students to improve their literacy learning, but did not necessarily bring students up to year level expectations or overcome their literacy difficulties. I suggest that the challenges inherent in transferring skills and knowledge from more to less supported settings may be one reason for this. I also argue for a more considered understanding of the purposes and outcomes of interventions, suggesting that the common intervention aim for students to accelerate their learning to year level expectations, and not require further support, requires mediation.

7.4.4.1 Formal measures of achievement

Longitudinal studies of literacy intervention impact typically alter the specific assessments used over the course of the course of the study, in order to capture the increased expectations for literacy competence at each year level. Such studies often report less favourable final outcomes (e.g. Bradford & Wan, 2015; Reynolds & Wheldall, 2007; Sylva & Evans, 1999) than those with a shorter pre and post design. In this study, and in Bradford and Wan's research, the specific assessments used with older students over the duration of data collection changed: their achievement was initially measured with scaffolded tasks, and later, more independent forms of reading assessment were used. In both studies, students performed better on the former, scaffolded assessments. As discussed in the previous section, the more abstracted and formal tests used with older students in both studies required the independent transfer of skills and knowledge to new text types. This thesis proposes that students who remain behind year level expectations in literacy are less likely to demonstrate such transfer—both in formal assessments and also in contextualised print literacy practices. An understanding of the role of transfer from the instructional context appears to be important in developing reliable understandings of students' intervention gains, and a lack of attention to this factor may result in overestimations of students' intervention success.

7.4.4.2 Intervention purposes and outcomes

Understanding the primary purpose for literacy interventions is pivotal when considering these outcomes at system, school, and individual levels. Participants in this thesis shared mixed beliefs about whether interventions were to catch students up to year level expectations, or whether they were to support students to progress, with some participants voicing both perspectives. The ambitious aim for interventions to raise student achievement to year level expectations stems from the principles of Reading Recovery (Klenk & Kibby, 2003). Yet the original goals that a Reading Recovery program would prevent later reading difficulties, and enable discontinued students to sustain their literacy development in the classroom "even with a 'not-noticing' teacher" (Clay, 1993, p.58) do

not appear to have been realised. Instead, this program has been shown to elicit the best outcomes within a supportive system which includes strong classroom literacy pedagogies and careful monitoring of students' progress (Jesson & Limbrick, 2014). Learning from the case of Reading Recovery, I suggest that it is reasonable to assume that other interventions are also likely to require the same level of contextualisation and ongoing monitoring.

Longitudinal studies of students who have received literacy intervention/s in the past have found that intervention improvement is not necessarily sustained over time (Bradford & Wan, 2015; Freebody, 1990; Reynolds & Wheldall, 2007; Sylva & Evans, 1999). Such studies generally conclude that the intervention has not 'worked', as their design is premised on the assumption that the purpose of interventions is to catch students up and to provide them with the skills to maintain year level progress with their peers without further support. I argue that this assumption of intervention purpose appears to be flawed. As discussed in chapter four, one purpose of literacy interventions is to identify the approximately five percent of students with more complex literacy difficulties who require longer term support (Pressley & Allington, 2014; Torgesen, 2004). Given that these students form approximately one quarter of the 20% of students who experience literacy difficulties, it seems obvious that an intervention will not bring all students' achievement to year level expectations. When discussing the student participants who do make progress through an intervention, Klenk and Kibby (2000) make the stark observation that: "most children provided remedial reading never come fully up to grade level, that is, their reading problems are not 'cured.' This includes not only children in economically depressed areas but also children attending schools in affluent suburbs" (p. 681). Such frankness is not common in studies of reading intervention efficacy, yet the participants in this thesis appeared cognizant that participation in an intervention is not a one-stop-shop to 'fix' students' literacy difficulties. Instead, the parents and teachers in several case studies shared a clear understanding that their respective student may require further support in the future. In addition, some participants in the case studies of Georgia and Finn—who exhibited the most complex literacy challenges—explained that their goal was for these students to continue to achieve individual success rather than to 'catch up'. Amy (Georgia's mother) pointed out that she herself needed time to improve in her own literacy, and believed that Georgia would also need additional time to progress.

Klenk and Kibby (2000) argue that instead of focusing on remediation, that a shift to the mediation of literacy difficulties is needed. In this latter role, the teacher's constant and

crucial role is to continue to mediate with the student from assisted to independent literacy performance, using "modeling, encouraging, reminding, hinting, questioning, challenging, correcting, directly teaching, reteaching, reviewing, and, when necessary, just letting the learner be" (p. 681). Like Klenk and Kibby, I argue for a more qualified and measured definition of the purpose of literacy interventions—and I suggest that it may be a more accurate position to maintain that consistent quality educational opportunities including access to intervention support, will reduce the degree of literacy difficulties rather than truly remediating or 'fixing' these students. Such an understanding emphasises the need for sustained quality education and reminds teachers, parents, and even students of the need for consistency and vigilance.

7.4.5   Section summary

This final section has discussed key findings relating to the overall research question—How do literacy interventions impact on literacy development?—whilst problematizing the common understanding that literacy interventions are programs to support the lowest achievers in literacy to catch up to year level expectations. The purposes of the literacy interventions in this study were analysed, and the role of the intervention in contributing to students' literacy development was critiqued. The contributions of other factors—in particular the outside influences of school sector policies and funding—were appraised and linked to earlier research findings. Formal assessment of intervention improvement was identified as an area for increased scrutiny, with attention needed to examine the role transfer plays in sustaining intervention success longitudinally. Intervention outcomes were discussed in relation to the purpose for interventions, and evidence from this thesis was used to support Klenk and Kibby's (2000) appeal for a conceptualisation of mediating rather than remediating literacy difficulties. Overall, this section has explained that literacy interventions impact on literacy development as part of a complex system in combination with a number of other extrinsic and intrinsic factors.

7.4.6   Chapter summary

This chapter has explored the key findings of the individual students' case studies, and the discussed the overarching findings of the thesis. The following chapter concludes the thesis, summarising its findings, addressing limitations, and discussing implications and recommendations for future research.

8. Conclusion

This study set out to describe how print literacy interventions are used in Victorian primary education, and to explore how these programs contribute to primary aged students' literacy development in specific school contexts. It employed a socio-cognitive lens and mixed methods enquiry methods to investigate: the prevalence and scope of literacy intervention use in Victorian primary education; participants' perceptions of these programs at school and at individual levels; the extent to which these programs impacted on students' life-wide literacy development; and the factors impacting on a) schools' intervention implementation and b) individuals' intervention success. This chapter offers a precis of the key findings of this thesis and outlines the limitations of the study. It then discusses implications, recommendations, and future research directions indicated by these findings.

8.1   Key findings

This study found that literacy interventions were commonly offered in Victorian primary education settings in 2014, with a wide range of programs named in the online data scan. School sector was found to have a significant association with whether schools offered literacy interventions in general, and with whether they offered particular kinds of programs. The case study school data suggested that these differences stemmed from different sectors' policies and funding models.

The questionnaire and case study school data identified that interventions were offered for a range of purposes in these school settings: mainly to improve the achievement of students with literacy difficulties; but also to provide extension opportunities for students not participating in the intervention, support teacher pedagogy, and cater to parental satisfaction and community needs. The student case studies illustrated the varied nature of their literacy difficulties, and showed that the case study schools provided interventions both remedially—to students achieving well below year level expectations, and preventatively—to students achieving close to year level expectations. This range of purposes for literacy interventions was broader than typically assumed in the research literature, in which interventions are generally understood to be for improving the literacy achievement of students with clear literacy difficulties, and offered only to these students (e.g. Brooks, 2007; Clay, 1993a; Torgesen et al., 2006).

Interventions were highly valued opportunities in both case study schools, and supported the case study students to make literacy improvements. Participants generally hoped that interventions would help the case study students to catch up to year level expectations in

literacy. However, in both school settings participants shared common understandings that for some students, continuing to make progress was a more realistic and appropriate goal than meeting year level benchmarks. In addition, participants shared clear understandings that ex-intervention students may require further support with literacy in the future, rather than expecting the intervention would prevent later difficulties. These findings provide an alternate understanding to that offered by the aims and intentions of Reading Recovery, and also demonstrate a differing understanding of the purpose of interventions to longitudinal studies of literacy interventions that regard success as students building on intervention gains and maintaining year level achievement without further support (e.g. Bradford & Wan, 2015).

This thesis found that literacy interventions had a range of outcomes: a few relating to the wider purposes reported above—for example, increased community connectedness; and a larger proportion relating to participating students' literacy development—which was conceptualised using four dimensions. Two of these dimensions—observations of students' literacy skill and behaviour improvement, and changes in their affective stances towards literacy engagement—were commonly reported in the student case study data, suggesting that the participants valued observational evidence gathered whilst students engaged in typical literacy activities at school and at home. The participants agreed that all case study students improved in observed literacy skills and behaviours through and beyond their interventions, and that most experienced sustained positive changes in their affective stances towards literacy engagement and activities.

Information on the other two dimensions of literacy development—students' formal assessment and LPQ data—was explicitly sought as part of the socio-cognitive research design for this study. Unless specifically asked, participants infrequently volunteered information about the formal assessment data they had gathered on students' literacy achievement. The type, quantity, and timing of assessments differed between the case study schools, and this appeared to be linked to the school sector policy differences identified earlier. Analysis of students' assessment data on entry to their interventions showed these to be the best predictor of students achieving at levels close to those expected for their school year post-intervention. This was in part because students with higher entry achievement had less progress to make to catch up to year level expectations.

Data on students' contextualised uses of literacies were gathered using the LPQ, which enabled comparisons of how students used literacies in the classroom, at home, and in the community, over the course of the study. This tool showed that each student engaged in a

range of literacies, and showed that some of their practices increased in complexity over the course of the study. These changes were not always attributed to literacy growth, as access to media, and changing interests also influenced students' engagement in practices. Increased complexity in students' print literacy practices, particularly in their recently read texts, was only evident in students who also achieved at levels close to their peers in formal assessments. This finding was of interest as some sociocultural researchers (e.g. Freebody & Wyatt-Smith, 2004; Lankshear & Knobel, 1998; Luke, 2010) have reasoned that the data generated by formal tests has little relationship to the ways in which students use literacies in their daily lives. However, for the students in this thesis, it appeared that there was a relationship between the application of their improved literacy skills to both contextualised practices and more abstract assessment contexts. Pearson et al.'s (2014) concepts of distance and transfer from the instructional context were used to theorise explanations for a relationship between these contrasting forms of evidence, as both require students to transfer learning from their instructional settings to new scenarios and text types, often independently. This thesis finding makes a small theoretical and practical contribution to the fields of literacy development and assessment, as understandings of how a) different kinds of assessment evidence relate to each other, and b) students transfer literacy knowledge from one setting to another, do not appear to be widely explored or theorised in the literature on literacy interventions. However, caution is needed, as this finding may be particular to the few cases explored in this study. As discussed later in this section, further research is needed to discover whether similar patterns of literacy growth are observed more broadly.

Literacy interventions were found to contribute to students' literacy development only in tandem with a range of other factors. Some of these were systemic, including the outside influences of policies directing, and funding for, literacy interventions in schools. Other factors impacted at the school and/or home levels, and included: the logistics of implementing interventions; accessing expertise; learning programs and opportunities; and relationships. The individual factor of students' literacy and learning differences and difficulties on entry to their interventions was also shown to have a significant influence on the extent to which their literacy developed across the four literacy development dimensions. These factors formed a situated model which allowed the specific enabling and constraining factors on each school's literacy intervention provision, and on each student's literacy development through and beyond their intervention, to be identified.

This model shows literacy development to be a complex, socio-cognitive process, influenced by factors at a number of levels.

8.2   Limitations

In some respects, this study can be viewed as a relatively small doctoral project, conducted in Victoria, Australia. In one sense, the sample population was small, exploring literacy interventions in one state, and honing in on the interventions offered in two specific primary schools and the literacy trajectories of six students in these settings. In another sense, the thesis design is relatively broad, incorporating State, school, and individual case layers, and because of this, each of the two school and six student case studies is less in depth than research focusing on one setting or student. Given that Australia's states and territories each have their own education systems, findings about the role of policy and school sector differences may be specific to Victoria. The school and student level findings may also be specific to these settings and individuals and, as discussed in the subsequent sections, further research is needed to explore this.

Another limitation of this study is that it was relatively short, with data collection occurring over one year. The online data scan provided a useful snapshot of literacy intervention provision in Victorian primary education at one point in time, serving the purpose of clearly contextualising the research project. It would have been valuable to continue to gather data on literacy intervention provision in each case study school over a longer period of time, particularly as CEOM policy appeared to be shifting away from the directed model of intervention that was reported to be successful at Sacred Heart School. A data collection phase subsequent to students' literacy interventions was a feature of this study, as I believed it was important to explore whether students' literacy intervention gains were maintained beyond their program participation. It would have also been advantageous to follow the literacy trajectories of these students over a longer period of time, as Hill et al. (2002) did.

In accordance with the principles of ethical research, participation in the project was voluntary, and participants were informed about the purpose of the study, and the likely uses of its resulting data. Schools volunteered to participate, and it appeared that a possible motivation for this was because they were proud of, and wanted to share, their school's approach to literacy intervention. Other schools may have had less successful intervention experiences, and so not wished to participate in a study with this focus. In addition, the case study student participants were suggested by the school staff. It is possible that there were some biases in the selection of these students, although the data

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showed that the participating students were not unconditionally positive about their program, and that students with varying intervention outcomes had been selected for participation. Whilst the finding that schools offered literacy interventions to a range of students was interesting, contributing knowledge to the field of how and why schools offer such programs; it would have also been worthwhile to have more of a focus on students with clear literacy difficulties, as the literacy trajectories of these students appeared to be the most complex and uncertain.

As discussed in the methods chapter, the data collection and analytical approaches I used each had some limitations, and I aimed to minimise the influence of the limitations of any one method or technique by using a range. One theoretical and methodological choice was the adoption of a socio-cognitive lens, and, as discussed throughout this thesis, I found this stance useful for framing this study. As noted in the introduction, there were some tensions in this approach, in that some concepts and aspects of the design were more sociocultural, and others were more cognitive. However, I found that that drawing ideas from each paradigm enabled a broader exploration of literacy development through an intervention than would have been possible if working from one lens.

Research is never neutral or objective. I brought background knowledge, prior experiences, beliefs, and values to this thesis, which contributed to the development of the theoretical lens utilised, and informed the ways in which I looked through that lens. I have significant experience as a teacher, literacy intervention teacher, and literacy coach, and taught part time in the Victorian Government school system for most of my PhD candidature. I hold a set of beliefs about literacy education, including a strong conviction that students have the right to access quality learning experiences that enable them to make life-wide literacy progress. I regard my subjectivity as a strength as well as a limitation, as my professional experiences supported me to identify potential gaps in the research, and to design methods for collecting data in schools. Yet there was the potential for these subjectivities to cloud my research. I worked actively to counter this through checking my understandings of participants' statements and ideas during and subsequent to our interviews, and by drawing on the repeated interview design of the study to clarify my perceptions. I also engaged in reflexive and reflective questioning of my perceptions and understandings during data analysis. Some researchers engage with their subjectivity by making their own thoughts an explicit and visible component of their thesis findings. As discussed in the methods chapter, I chose to make such comments sparingly, a decision underpinned by one of the aims of the thesis—to present the experiences and perspectives

of the participants. In addition, this study was not an auto-ethnography of myself as a literacy intervention researcher, and therefore I felt it inappropriate to position myself dominantly in the thesis narrative.

Some of these limitations offer possibilities for potential research, which I will discuss in the following sections.

8.3   Implications, recommendations, and future research directions
8.3.1   Research and theory

This thesis has identified print literacy as an area worthy of particular consideration, research, and understanding. It has shown that schools and parents value competence in this area, and offer interventions with the primary aim that students with print literacy difficulties will catch up to year level expectations in reading and writing. The findings of this research do not support the contentions of earlier researchers that print literacy competence is becoming less relevant (Kress, 1993; Street, 1990, cited in Hartley, 1994), or that interventions to support print literacy lead to a narrowing of the concept or uses of literacies (Barnes, 1996; Lankshear & Knobel, 1998; Woods & Henderson, 2002). Whilst print literacy acquisition, difficulties, and remediation are commonly researched fields, this thesis has shown literacy development through an intervention to be a complex and highly varied process, which will benefit from further exploration.

The findings of this study support McNaughton's (2011) and Freebody's (2007) recommendations that contemporary literacy research ought to address how and why interventions elicit literacy development with specific students in particular circumstances. The findings also imply that study designs exploring the contribution of a number of variables on students' literacy development are needed, in order to systematically appraise the impact of intervention participation in specific contexts. As students' specific loci of literacy difficulty, and the extent to which they were achieving below year level expectations were significant factors impacting on their literacy trajectory through and beyond their interventions, future research that attends to and gathers careful data on these variables may support deeper understandings of how and why different students respond to interventions in different ways. I suggest that studies specifically focusing on literacy remediation for students with clear literacy difficulties will be of particular value. In addition, information about students' other learning opportunities—such as private tuition—should also be gathered when appraising literacy interventions, in order to probe the extent to which the intervention program can be understood to be the agent of literacy change. The findings of this study supported the earlier work of Chall (1983) and Hoffman

and Pearson (2015), who identified that both quality intervention programs, and knowledgeable and effective teachers, are important in improving the literacy of students with difficulties in this area. Teacher expertise was particularly highly valued in both case study schools, and the role this variable plays in eliciting positive intervention outcomes is also worthy of further research.

One challenge with many literacy intervention studies is that even longitudinal designs are relatively short, for example, following students' learning for some (e.g. Chapman & Tunmer, 1997; Hill et al., 2002;) or all (e.g. Johnston & Watson, 2005; Machin et al., 2016; Tunmer et al., 2006) of their primary school years. The extent to which participating in a literacy intervention as a primary aged student impacts on a person's life-long literacy has not been well explored. A possible method for conducting research in this area may be the inclusion of a literacy development component in a larger longitudinal study.

This thesis has drawn attention to the limitations of using a singular theoretical lens in literacy intervention research, showing how such a perspective has the potential to omit consideration of particular ideas and kinds of data. Further, this thesis has demonstrated the utility of a socio-cognitive lens for exploring of a range of influences on literacy development through an intervention. I suggest that the adoption of a socio-cognitive lens offers promise for other researchers examining the complex phenomena of literacy difficulties, literacy interventions, and literacy development through an intervention.

This study has implications for the measurement of literacy development in intervention research. It conceptualised literacy development using highly sociocultural (literacy practices) and highly cognitive (school assessment) data; and demonstrated a tentative connection between students' application of print literacy skills and knowledge in each type of evidence. I suggest that the concept of transfer may provide an important link in understanding this relationship. I also propose that this research finding supports the validity of a socio-cultural stance, as it suggests that these theoretically distant valued outcomes of literacy development may in fact share the commonalities of requiring more distant and independent application of literacy skills and knowledge. Whilst the sample for this study is very small, larger scale studies exploring the relationship between people's literacy assessment data and the ways in which they use literacy may support the development of solid and defendable socio-cognitive reading theory conceptualising the interplay between skill development and contextualised literacies engagement.

The concept of transfer also has relevance to future research studies, and has the potential to support: more nuanced assessment measures that account for the extent of transfer and independence needed to demonstrate competence; and more precise statements of improvement and success through an intervention. I suggest that if students' new learning is bound to their instructional contexts, then it may be more fragile than that of other students whose new learning has transferred to practices and independent assessment tasks. These findings link to Pearson et al.'s (2014) contention that the inclusion of information about intervention learning transfer is a research imperative, and support their statement that: "it is a moral obligation to inform research consumers of our answer to the question: How far will the learning travel? How well can the learner apply what she has learned to a new situation?" (p. 240).

8.3.2 Systemic practice

The online data scan identified clear differences in the literacy intervention offerings of schools from different sectors. I suggest that more research is needed: a) to test the online data collection methodology used in this thesis with an Australian wide sample to discover whether the patterns of literacy intervention use identified in this study occur nationally; and b) to explore schools' reasons for offering/not offering literacy interventions with a larger sample, in order to better understand the predictive factors involved. Repeated sampling over time may provide valuable information about how trends in literacy intervention provision shift in response to research findings, and to policy and funding changes.

This study has identified implications for school systems. More directive systems, such as the CEOM system that Sacred Heart School worked under, appear to offer the pedagogical structure, access to expertise, and resource allocation needed to support students to improve their print literacy, and build on their gains. Others (e.g. Allington, 1995; Luke et al., 2003) have identified the need for directive systems to support sustained literacy development, particularly for those with literacy difficulties, and Hill et al. (2002) emphasised the need for a 'safety net' to provide support for third wave readers in particular. Whilst these earlier recommendations do not appear to have been taken up by policy makers in Victoria and other Australian states, this thesis reiterates the benefits of: directive policies mandating research supported pedagogical practices and interventions in schools; and funding tagged specifically for interventions for students with clear literacy difficulties, including students in need of long term support. In addition, I recommend that clear literacy assessment guidelines are provided to schools, alongside information and

professional development opportunities to support teachers to develop their assessment literacy.

8.3.3   School level

The inductive model developed for this thesis may support schools to evaluate their literacy intervention provision, and to identify factors impacting on students' literacy development through an intervention, though I suggest that more research is needed to discover whether these factors are consistently identified by a wider sample of schools as major influences on their literacy intervention provision and on their students' literacy development. This model highlights that schools may not necessarily be free to provide the interventions of their choice, and that school leaders must make program decisions based on the policies and funding systems of their respective sectors. In selecting interventions, leaders will need to consider what expertise and pedagogical programs are available to their school, suggesting that quality guidance is needed to inform school leaders and parents about effective, research supported interventions for print literacy difficulties. This study identified that some schools in the online data scan offered programs based on spurious understandings of the loci and nature of literacy difficulties. In both case study schools, staff and parents reported seeking outside advice which deviated from evidence based recommendations for literacy difficulties remediation, implying that quality advice in this area may not be easily accessible. A system providing clearly disseminated information about effective interventions for students with literacy difficulties, located on a National or State website where principals, teachers and parents can freely access it, is strongly recommended.

Another implication of this study is the importance of understanding the conditional impact of print literacy interventions. Interventions were found to interact with a range of other factors to create more and less enabling literacy learning environments. Furthermore, interventions did not necessarily catch students up to year level expectations. An awareness of the complexity of literacy change is needed, together with a nuanced understanding of how interventions interact with a range of other factors, and a knowledge that interventions, even when well situated within a system, may not necessarily remediate and prevent further print literacy difficulties.

An additional implication of this study is the importance of evaluating student success through an intervention using a range of age appropriate methods of assessment, and monitoring their progress over time. A component of students' literacy development that was not always considered in the case study schools was the extent to which students'

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literacy improvements had travelled beyond scaffolded contexts. Ongoing monitoring of literacy intervention students' literacy development in more and less scaffolded contexts is recommended, in order to understand the extent to which transfer of learning has occurred.

8.2.4   Student level

The students in this study had varied literacy histories and trajectories, despite being from relatively homogeneous and privileged backgrounds. These cases offer examples of the broad spectrum of literacy difficulties, and show that challenges in learning to use print can occur for a range of reasons. One question raised in relation to the case study findings was who should receive literacy interventions? It appeared that providing preventative support to students was popular with parents and teachers, and it clearly elicited positive outcomes in terms of students' literacy outcomes. But if resources to fund interventions are limited, then it is recommended that this support is restricted to students with the highest literacy needs.

This thesis identified areas of concern with regard to support for students with complex and prolonged literacy difficulties, as discussed in relation to implications for systemic and school level policy and practice. In the case study schools, participants' understandings of long term literacy difficulties and disabilities, and appropriate support for students with these challenges, appeared to be poorer. I have suggested that identifying students with long term literacy difficulties, and tagging funding to support their needs, may ensure that these students receive quality instruction to aid their literacy development. I further suggest that the identification of such students should be used for the purpose of informing schools of the extent to which they need to provide specialised and intensive instruction for them (Allington, 1995), a responsibility that requires policy, information, expertise, and funding at the systemic and school levels.

8.5   Concluding words

I embarked on this study in order to investigate what schools elicited from offering, and students gained from participating in, print literacy interventions. I was interested in exploring the life-wide outcomes of these programs, and the perspectives of those participating in, and working with interventions. I knew the process of improving print literacy was complex, and designed a study to encompass and tease out some of these complexities. Yet despite the broad scope of this project, I was still surprised at some of the findings, particularly the system level influences and wide range of individual differences. Interventions were not perceived as a panacea for literacy difficulties, and only worked in tandem with a range of other factors. Yet these programs were highly

regarded, because they did support students to make personal progress in print literacy. I have left the last words to participants from Finn's and Georgia's case studies, who remind us that interventions to improve students' print literacy are valued opportunities for students with clear difficulties in these areas:

> Look I think we were hoping to get an improvement. By that stage it was fairly clear that for Finn his improvement, you know, he wasn't going to all of a sudden be up with the rest of the kids. But we just want him to be able to read to get by, you know to get by in life, to read to the point that when he goes to high school it's not just going to be this constant struggle. So ultimately it was just to get him going (Kirsty, Finn's mother, interview one).

> …to go from not reading and not writing to being able to read simple texts and being able to write simple stories and simple responses to things, I think it is a success (Maria, Georgia's Reading Recovery teacher, interview three).

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Appendix A

Principals' questionnaire - Reading interventions in Victorian Schools

This questionnaire gathers anonymous data on schools' literacy programs and reading interventions.

Demographics
This section gathers demographic information about your school.

How many students are on your school roll for 2014?

What is your school's ICSEA rating?

Select your school's geographic location
a) Remote
b) Rural
c) Regional
d) Urban

Approximately how many students on your roll this year are reading 1-2 years below their chronological age?

Approximately how many students on your roll this year are reading 2 or more years below their chronological age?

School, classroom and family literacy programs
This section gathers information about your school's whole school and whole class literacy programs and approaches.

What is the main literacy program/approach your school is using this year to improve whole school and/or whole class literacy achievement?

What are the advantages and disadvantages of this program/approach?

Please list any other whole school and/or whole class literacy programs and approaches your school is using this year.

Targeted reading interventions for small groups and individuals.
This section asks about the programs and approaches your school implements for groups and individuals with poor reading achievement.
> *This questionnaire defines students with poor reading achievement as:*
> *-Students who read more than one year below their chronological age.*
> *-Students who read at such a level that they qualify for Reading Recovery or another individual or small group program at your school.*

What is the main small group/individual intervention your school is using this year to improve the reading of students in Prep-Year 3 with poor reading achievement?

What are the advantages and disadvantages of this intervention?

Please list any other small group and/or individual literacy programs and approaches your school is using this year with Prep-Year 3 students with poor reading achievement.

What is the main small group/individual intervention your school is using this year to improve the reading of Year 4-6 students with poor reading achievement?

What are the advantages and disadvantages of this intervention?

Please list any other small group and/or individual literacy programs and approaches your school is using this year with Year 4-6 students with poor reading achievement.

Thank you for completing this questionnaire.

Appendix B

Indicative interview questions for Literacy intervention teacher/tutor

PERCEPTIONS

Tell me about the program you are using. Can you give me some examples of the work you do with the child?

How long have you been using it?

How many times a week have you worked with the child?

How long is each session?

Over what time frame?

Do you deliver the program according to the instructions or do you adapt it? [If it is a commercial package or scripted program].

PRACTICES

Tell me about the child's literacy learning.

Can you give examples of their strengths and challenges?

What shows you that they have improved?

What other changes in behaviour/learning/motivation/engagement have you noticed?

How do you think they will get on with their reading after the conclusion of the program?

What do you think would support the student to maintain their gains?

FEATURES

What are the strengths of this program?

What would you change about it if you could?

What do you believe makes an effective reading intervention?

Are there any other comments you would like to make with regard to this student's reading intervention?

Are there any comments you would like to make about your involvement with this intervention?

Appendix C

Literacy Practices Questionnaire example materials - Examples of picture prompts

Literacy Practices Questionnaire example materials - Likert scale – positivity

Terrible   Not very good   Neutral   Good   Excellent
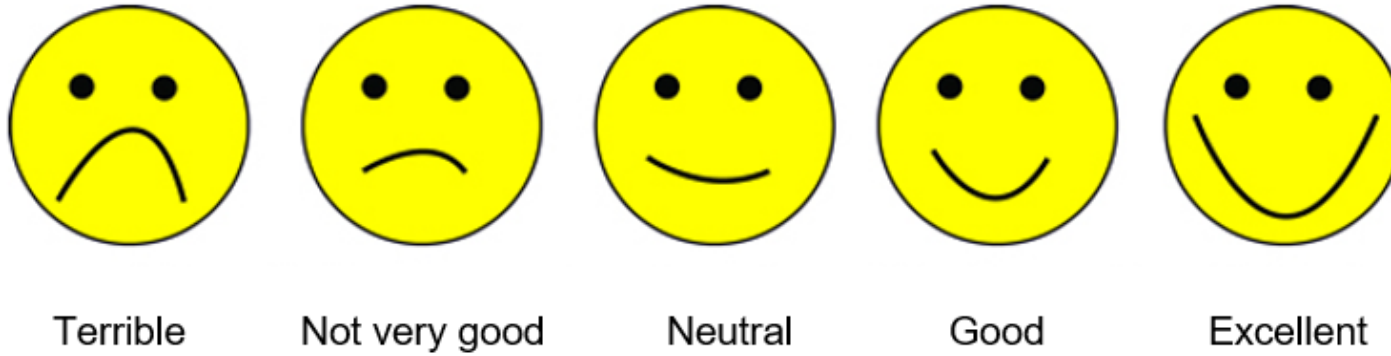
Literacy Practices Questionnaire example materials - Likert scale - frequency

Less than once a month   About once a month   About once a week   About once a day   More than once a day

Appendix D

Example of Explanatory Statement

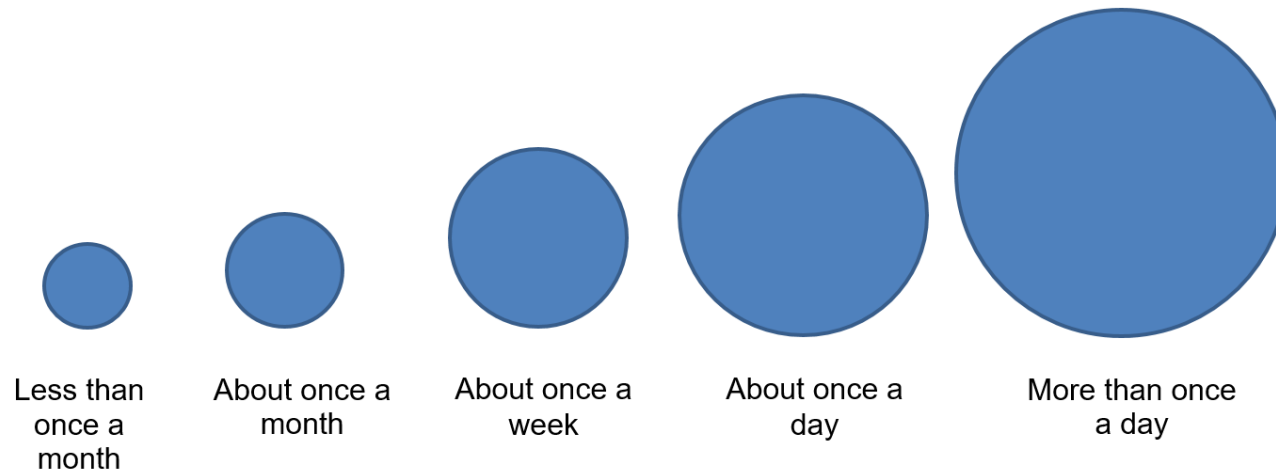**MONASH University**

EXPLANATORY STATEMENT

Teachers

Project: The broad outcomes of participation in a reading intervention

Chief Investigator's name:	**Student's name:**
Jennifer Rennie	**Joanne Quick**
Faculty of Education	Faculty of Education

My name is Joanne Quick and I am conducting a doctoral research study with Dr Jennifer Rennie at Monash University. You are invited to take part in this study. Please read this Explanatory Statement in full before deciding whether or not to participate in this research. If you would like further information regarding any aspect of this project, you are encouraged to contact the researchers via the phone numbers or email addresses listed above.

You are being invited to participate in this study because your school principal has given permission for participants to be sought at your school, and because you are a teacher of a student who is or is soon to be receiving a reading intervention.

What is the study about?
The study aims to answer the following questions:
-What reading interventions are offered by a sample of Victorian schools and what do principals report the advantages and disadvantages, and the typical outcomes of these interventions to be?
-What do students participating in a reading intervention, and their parents, classroom teachers, and tutors report to be the broad outcomes of the reading intervention; and are these outcomes sustained over time?
-What do participants believe to be the features of a successful reading intervention?

What is asked of me?
This study uses in depth case studies to explore the broad outcomes of a student's reading intervention. Multiple participants contributing to a student's reading development will be interviewed using semi-structured questions. Principals and tutors will be interviewed once and parents, teachers and students will be interviewed between one and three times to gather information about the broad impact of the reading intervention over approximately six to nine months. The timing of these interviews may alter depending on the nature of the reading intervention.

Each teacher of a case study student will be interviewed between one and three times: At or near the start of the student's reading intervention, at or near the conclusion of their intervention, and approximately one term after the conclusion of their intervention. Teachers will be asked open ended questions about the literacy practices the student engages in, and, in the second and third interviews, about any changes in literacy and learning. Teachers will also be able to talk about the student's attitudes to reading, the advantages and challenges of participating in the literacy

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intervention, and what they believe is important in supporting students with reading difficulties. If the teacher of a case study student changes during the study then the new teacher will be provided with information and invited to participate in the study.

All interviews will take 20-40 minutes. They will be conducted on school property, in a suitable room (to be arranged with the school principal), during daytime/late afternoon slots convenient to the participants and to the school management. All interviews will be audio-recorded to enable the accurate transcript of participants' answers. Participants will receive a copy of the transcript for them to check and, if necessary, amend.

Consenting to participate in the project and withdrawing from the research
If you are willing to participate in this research then please complete the attached consent form. Participation is voluntary and no person will be disadvantaged by not participating. Participants may withdraw from the research at any time, and may withdraw previously submitted interview data up to the point when the researcher begins to write articles and reports about the study.

Possible benefits
- This study is an opportunity for participants to voice the advantages and challenges of delivering and participating in reading interventions.
- Participants will be able to access a summary of reading interventions operating in a sample of Victorian schools, and will be able to read about the benefits and challenges of these.
- This study aims to help educators and students by building a model of best practice in implementing and supporting reading interventions. Participants will be able to access recommendations arising from the study.

There are no foreseeable risks associated with participating in this research.

Payment
There will be no payment or reward for participating in this research.

Confidentiality
No specific place, school or person will be named in any publication or output of the research.

Storage of data
Data (including interview recordings and transcripts) will be stored on password protected computers at Monash University. The chief investigator and student investigator will have access to the data. Data will be stored in accordance with Monash University regulations.

Results
A summary with the results of the research can be requested by emailing ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇ in July 2016.

Complaints
Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics (MUHREC):
Executive Officer – Monash University Human Research Ethics Committee (MUHREC)
Room 111, Building 3E, Research Office
Monash University, VIC 3800
▇▇▇▇▇▇▇▇▇▇   ▇▇▇▇▇▇▇▇▇▇▇▇▇   Fax: +61 3 9905 3831

Thank you,
Joanne Quick and **Jennifer Rennie**

Appendix E

Example of consent form

CONSENT FORM FOR TEACHERS

This form will remain with the Monash University researchers for their records.

Project: The broad outcomes of participation in a reading intervention

Chief Investigator:	**Student Investigator:**
Jennifer Rennie	Joanne Quick
Monash University Peninsula Campus	Monash University Peninsula Campus

I have been asked to take part in the Monash University research project specified above. I have read and understood the Explanatory Statement and I hereby consent to participate in this project.

I consent to the following:	Yes	No
I agree to be interviewed by the researcher once/twice/three times.	☐	☐
I agree for the interviews to be audio recorded.	☐	☐
I understand the following:		
I understand that participation is voluntary and that I can withdraw from the project at any time.	☐	☐
I understand that data collected in interviews can be withdrawn up to the time the researcher begins to write up findings from the study.	☐	☐
I understand that data will be securely stored at Monash University and that only the research team will have access to it. I also understand that all data will be destroyed after 5 years.	☐	☐
I understand that any interview data used in publications or reports will contain no names of places, schools or people.	☐	☐

Teacher's name _____

School _____

Email address _____

Phone number _____

Signature _____

Date _____

Appendix F

Section from code book

Focused theme	Definition	Sub themes	Coded example
EXPERTISE	Contains reference to teacher, tutor or principal expertise in teaching literacy, or to expertise from outside professionals such as psychologists or literacy advisors.	-Leadership expertise -Use of data -Professional development -Program training -Literacy intervention teacher/tutor expertise -Classroom teacher expertise -Outside expertise	"I think the other thing… with Literacy Support, is people with good experience, who really know their stuff. So having that really knowledgeable specialist working with those children, and being able to spread that through the school, that knowledge through the school" (William, classroom teacher, interview 2).

Appendix G

Example literacy practices questionnaire template for Oliver

Literacy practice	Frequency 1,2,3,4,5		Place Home, School Community		Feeling 1,2,3,4,5		Example	
	1	**2**	**1**	**2**	**1**	**2**	**1**	**2**
Computer	3.5	2.5	Both	Both	3	3	Laptop, Pokemon, work	Research, word
Tablet	3	2.5	Home	Home	4	4	Games, Minecraft, typing	Games
Mobile	1	-	Home	-	5	-	Mum's phone	
Playstation	2	-	Home	-	5	-	Xbox	
Camera	1	1	Home, Com.	Com.	4	4	Festivals, football games	Football at MCG
Cooking	1	3	Home	Home	5	4	Bread	Tacos
Working	2	4	All	Home	5	4	School garden plans	Look after pets
Menus	-	1		Com.	-	1		
Labels	-	3		Com.	-	5		
Signs	4	4	Com.	Com.	3	5	Stop, Macdonalds	
Make lists	4	1	Home		3	3	Shopping, Christmas	To do list, shopping.
Own writing	3	5	Both	School	4	5	Songs	ANZAC
Directed writing	4	1	Both		5	4	Spies	
Craft	3	3	Both	Home	3	5	Christmas wreath & cards	Woodwork
Games	1	1	Home		3	5	Monopoly	
Library	2	3	Com.		4	5	CD readalong	
Listen to story	4	4	Both		4	3	*Shelia the Great*	*Light Horse Boy.*
Read school book	5	3	Both		4	3	*Boyz rule: On the farm*	
Read other book	5	5	Both		5	5		*Geronimo Stilton*
Junk mail	3	3	Home	Com.	4	3	Aldi catalogue	Aldi
Magazines	4	1	Both	Com.	4	5	Lego club, Aldi	At hairdressers

Frequency scale: -=never/did not respond to this question, 1=less than once a month, 2=once a month, 3=once a week, 4=once a day, 5=more than once a day. Feeling scale: -=never/did not respond to this question,1=terrible, 2=not very good, 3=neutral, 4=good, 5=excellent.