

## Chapter 1

## Introduction

**Chapter objectives**

1. To explore the reasons for writing this book.
2. To identify key principles of the theoretical framework.
3. To explain key points of each chapter.
4. To provide a framework for readers to follow.



## Literacy in Early Childhood and Primary Education

This introductory chapter provides an overview of the theoretical position adopted in this text and of the content of the chapters that follow. The chapter introduces the myths surrounding reading acquisition and the effectiveness of common pedagogies in early childhood and primary education. It also suggests ways the text can be approached by early childhood and primary pre-service teacher education students and their lecturers.

To begin, we introduce you to some scenarios which we consider are not far from the realities that teachers will face in early childhood centres and classrooms.

### Scenario 1.1

You have a four-year-old boy in your early childhood classroom and you are wondering how well he will make the transition to school. Currently he spends most of his time outside in the sandpit, riding bikes or climbing things and seems to enjoy himself, but he rarely spends any time in the centre doing literacy-related activities and he wriggles constantly at mat session times and has to be told to pay attention.

### Scenario 1.2

You have a five-year-old girl in your new-entrant class who can clearly already read. When asked what she likes to read at home, she names books that most children are reading at the age of 10. Recent testing reveals that not only can she read the words in the chapter books she likes, but she also has excellent comprehension of what she is reading.

### Scenario 1.3

You have a six-year-old boy in your primary class who seems to be struggling with reading and is quite a long way behind the rest of the class, but the reasons why do not seem obvious. He has a large, receptive and expressive vocabulary, he knows the alphabet, his parents are both highly educated and say that he has been read to every day since he was a baby.

### Scenario 1.4

There is a 10-year-old boy in your class who is well behind the other students in reading achievement and you are finding it hard to meet his needs as well as catering to the rest of the class. The boy regularly tells you that he is 'dumb at reading' and is uncooperative

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and frequently disruptive when it is time for reading or writing activities in the class, both of which he finds difficult. He reads slowly, struggles with word recognition and spells with difficulty, suggesting that he is having problems with hearing phonemes in words. Although he did have 'Reading Recovery' at a previous school, he doesn't seem to have made much progress. More recently, other children have started to notice that he is finding reading and writing difficult and have made comments to him such as 'it's easy' or 'you just need to follow the instructions', in response to which the boy has become both verbally and physically aggressive.

Take a moment and think about each of these scenarios. Answer the following the questions:

- What do we know about the child described in the scenario?
- Are there any issues or challenges you would face as a teacher of this child?
- What do we know about the child's context and his or her family?
- Do the issues you identified pose any potential challenges for literacy acquisition?
- What might be some solutions to the issues described in the scenario?

Part of our motivation for writing this book is to help demystify the process of learning to read and write, abilities which we see as crucial in the early years of education, as they impact on children's ability to engage fully across the curriculum areas and they provide a platform for lifelong learning. For many parents and caregivers\*, the prospect of a child struggling at school is something they never want to face and finding help for a little one is the most important thing a parent can do. Similarly, teachers who face these children in the classroom will have moments of anxiety about whether the strategies they are using are the most effective to use. Allington (2010) has argued that only 25 per cent of all teachers are effective teachers of struggling readers. This text is designed to make sure that the teachers of the future will not be part of Allington's other 75 per cent, who may be effective teachers of most children but will be challenged by readers who present issues or challenges. Although we do address the issues associated with why children struggle and how to support them, our focus is effective strategies for most children, with some suggestions for those who face difficulties. Our aim is to explain how effective teachers work with families, so that they know children and their family context well and provide an appropriate range of opportunities and resources to support individual children on their journey to becoming literate. First, though, we will give you an overview of the theoretical perspective that underpins this text.

\* Hereafter the term 'parent' is used to denote either a child's parent or caregiver.

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### Our theoretical framework

**Neuroscience:**  
the study of the  
developing brain and  
its influence on human  
learning.

Literacy is a complex phenomenon, which could best be described as multifactorial. It involves individual, biological, social and cultural elements and, for this reason, we have based our explanations of how literacy develops on research which draws from **neuroscience** and psychology, as well as from sociology, education and anthropology. It is perhaps useful to link this explanation to Vygotsky's (1978) cultural-historical theory of child development, which has the following elements:

- reliance on genetic or developmental analysis
- the claim that higher mental functioning in the individual derives from social life
- the claim that human action, on both the social and individual planes, is mediated by tools and signs.

Daniels (2001) indicates that in psychology two models of learning have been proposed and these serve as oppositional ends on a continuum. These two models are an 'internalisation thesis' and a 'participation antithesis', and both offer a different perspective on the relation between the individual or the psychological and the social or the collective. The internalisation model treats the individual as completely separate from the environment and there is a time lag between the time a child receives messages and their reception, assimilation and transformation in the individual. The participation model recognises a more active role for the individual and learners entering into different worlds as they learn. In this model the dualisms in inner/outer worlds and psychological/social domains are blurred.

Vygotsky's theory embraces both these models of learning, although he moved closer to a participation model in his later writing (Daniels 2001). His early writing espoused a universal pattern to development, while his later writing admitted that children's learning trajectories were social and therefore had a relativistic element. As Scott (2008, p. 84) states, 'it is the learner who is central to the process of development and has an active and intentional part to play in their learning trajectory'. This text focuses on children as active drivers of their own literacy acquisition, whose learning journey is shaped by both biology and social and cultural factors. Stahl and Yaden (2004, p. 141) similarly argue that teachers and researchers need to:

probe more deeply into research emanating from biology and the neurosciences (see Shonkoff & Phillips 2000), children learning English as a second language (August & Hakuta 1997), learning theory (Bransford, Brown & Cocking 1999), and investigations into the causes of reading difficulty (Snow, Burns & Griffin 1998). Taken together, these findings point to the fact that all cognitive and affective learning processes are highly complex interactions between inherited and environmental factors and are selectively affected by variations in child-rearing practices, socioeconomic circumstances, family structures, adult-child interactions, educational environments, and other contextual and developmental factors.

**Chapter 1** Introduction*Amber learns about books*

In terms of biology, there is significant research now on how the developing brain shapes the skills and abilities that children demonstrate at different points on the continuum of literacy acquisition. The research also suggests that some children are born with conditions which will delay language development and consequently impact on literacy acquisition (see Berninger & Richards 2002 for a useful account of biological factors in literacy

acquisition). Brain research has highlighted the nature–nurture factors which influence how readily children will gain literacy knowledge and skills, although the research primarily focuses on microstructure (tiny units of analysis) and macrostructure (larger units of analysis) research aspects of the brain. Microstructure research examines the involvement of chemical molecules, neurons (cells) and neural connections in literacy. Macrostructure research examines chemical activity of single molecules and neurons and the transmission and reception of electrical signals between neurons.

Berninger and Richards (2002) base their brain research on the work of a Russian neuropsychologist (Luria 1973), who introduced the notion of functional systems of the brain at work in literacy acquisition. Luria argued that multiple brain structures are involved in one function and that the same brain structures can participate in more than one functional system as part of cognitive processing. Luria, a pupil of Lev Vygotsky, rejected single-factor explanations of development and argued that higher mental processes (such as reading and writing) were functional systems and that cognitive development could not be understood without understanding both the biological and social factors that explain development (Vygotsky & Luria 1930). Vygotsky and Luria proposed that behaviour should be studied within the context of evolutionary, historical (cultural) and ontogenic (individual) development, thus explaining the essential nature–nurture components of literacy research. Berninger and Richards (2002) state that the ability of some children to gain literacy understandings is constrained by biological factors and that the degree of constraint determines how much intervention is required in the classroom or home environment to overcome the constraint. As Berninger and Richards (2002, p. 10) argue, ‘Some students with biological constraints on their learning can learn but may (a) require more explicit, systematic, intense and sustained interaction than classmates; and (b) struggle more or have to work harder

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than classmates to learn an academic skill'. Berninger and Richards propose that nature alone seldom determines learning outcomes and that nurture – the type of teaching and learning support that children receive – is a determining factor in children's literacy achievement. Our discussions of literacy will make use of brain research where possible to explain the biological foundation of children's ability to learn.

Children's pathways or trajectories into becoming literate are significantly shaped by the social interactions and opportunities that they have; in this way, as we explain, literacy learning derives from social life. Providing children with rich literacy opportunities in early childhood and junior primary education provides a robust foundation for language development, including a rich vocabulary, knowledge of the alphabet, an awareness of sounds in the language, and an understanding of the purposes, functions and structures of print – what Marie Clay (2000a) called 'concepts about print'. There is a considerable body of research around the importance of a rich literacy environment (Neuman & Roskos 1990; Teale et al. 2009), but in addition, children need opportunities to interact with parents, teachers, other adults or other, more competent children to learn how to use the resources and make the most of the opportunities provided. Teale et al. (2009) suggest that the field of early literacy in particular has burgeoned since the early eighties, as a result of reconceptualisation about how much children understand about language and literacy through experiences without formal instruction. They argue that studies have showed how much children's understandings are shaped by a number of factors: the social processes of the home (e.g. Heath 1983), and how they become aware of print (Harste, Woodward & Burke 1984), learn through interaction with adults in read-aloud sessions (Teale 1984), begin to use invented spelling strategies as a logical and developmental solution to the language puzzle of learning about written words (Read 1975) and show metalinguistic awareness of language, words and print in English and other languages (e.g. Yaden & Templeton 1986; Ferreiro 1986). Teale et al. consider that this raft of research through the eighties legitimised 'emergent literacy', a term based on Marie Clay's (1966) notion of 'emergent reading', as a significant and important field of research and one that underpinned understandings of how to help children gain the fundamental understandings of language required for literacy acquisition. This body of research makes clear that children will not develop literacy without involvement in rich literacy environments and without support from knowledgeable adults, who understand how to sensitively support children's emerging understandings.

Vygotsky (1978) identified the twin notions of **access** and **mediation** to explain this relationship. He argued that children need both access to the resources, tools and artefacts of a culture, as well as mediation (support or guidance) by more competent adults or peers to help them to understand how to use those tools. He proposed that teachers help children to learn co-constructed knowledge within their zone of proximal development, using techniques that assist performance, such as scaffolding (Wood, Bruner &

### Access and

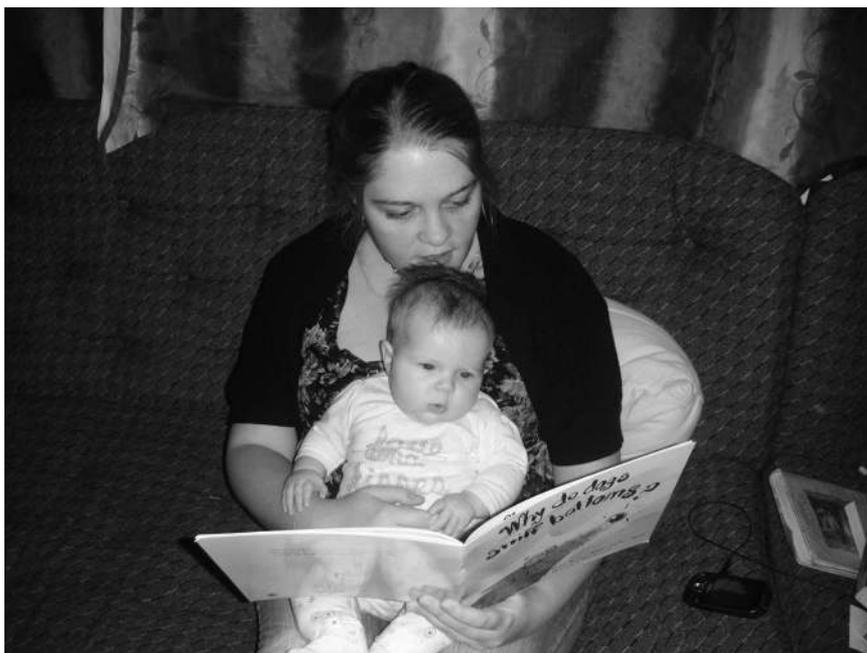
### mediation:

student access to learning resources and assistance provided to students using the resources by more competent adults or peers.

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Ross 1976). Vygotsky (1978) argued that providing access to resources was insufficient and that if children were not given the gift of instruction, they were limited to biological maturation. He theorised that the developing mind of the child is both individual and social at the same time and is the result of a long process of developmental events. John-Steiner and Mahn (1996) consider that the primary focus of sociocultural research has been on how the social co-construction of knowledge is internalised, appropriated, transmitted or transformed in formal and informal learning settings. Gallimore and Tharp (1990) usefully define co-constructed learning within a child's zone of proximal development as follows:

- Child's performance is assisted by more competent others.
- Child shows less dependence and performance begins to internalise. Child uses directed speech for self-regulation and guidance.
- Child's performance is developed, automated and fossilised. It is smooth, integrated and automatic.
- There is sometimes a stage of deautomatisation, when performance is forgotten or rusty. The learner has to re-enter the zone of proximal development and relearn the forgotten skill.



*Jessica reads to Millie*

Vygotsky's (1978) definition of how children internalise and transform learning suggests that teachers use a range of strategies to promote learning. As John-Steiner and Mahn (1996, p. 197) state:

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There are different modes of internalization, reflecting different teaching/interaction strategies. A continuum with direct instruction on one end to creative and collaborative learning on the other could describe the wide range of teaching/learning situations in which internalization occurs. Whether in the learning of a young child or in the activities of experienced thinkers, internalization is a fundamental part of the life-long process of the co-construction of knowledge and the creation of the new.

Vygotsky argued that the mediation provided by a more competent other person using demonstrating, modelling, questioning, feedback and task management helped the child to internalise and transform his or her understanding. We will argue that teachers play a crucial role in providing access to enriched literacy environments, including by mediating between the child's home background and cultural experiences and what Vygotsky (1998) called 'schooled concepts'. Teachers have the opportunity to open up access to new worlds for the child and through skilful and sensitive teaching support the majority of children to not only learn to read and write, but also to understand the bewildering range of new forms that literacy can take thanks to the rapid development of technology.

Vygotsky's (1978) theories have been further developed by a number of recent researchers, such as Rogoff (1990), whose cross-cultural studies identified that children also learn through being participants in the work of their families and communities. Rogoff (1990) found that even when children were not conversational partners with adults, they were involved in the adult world, for example, as participants in adult agricultural and household work. She describes the supportive engagement of Mayan



*Millie being introduced to text*

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mothers with their children as an example of the non-verbal guidance adults give children. Rogoff terms this **guided participation**, which takes place when creative thinkers interact with a knowledgeable person, and suggests it is practised around the world. Cultures may differ, though, in the goals of development. Many researchers have also researched Vygotsky's explanations of how learners co-construct new knowledge through their collaboration with adults and peers (Eun 2010).

Finally, literacy acquisition does involve the understanding and use of tools and signs, as Vygotsky (1978) predicted. Eun (2010) suggests three major types of mediation in Vygotsky's theory: mediation through material tools, mediation through symbolic systems and mediation through another human being. All three are relevant to how children learn about literacy tools, the symbol system of written language, and the language associated with literacy activities. Eun further states (2010, p. 406):

In mediating the learning process of individual students, it is important that teachers become engaged in the learning process themselves. More specifically, they need to become participant-observers (Wells 2002) in the construction of knowledge rather than assuming the role of someone who transmits already established knowledge to students. In this process, teachers need to be sensitive to the understandings of individual students. Teachers need to continuously assess the level of students' understanding so that each student's participation is a genuine contribution to the construction of a shared understanding. Teachers' mediation in the learning process thus becomes a fundamental element in optimizing children's potential to learn. Furthermore, in co-constructing knowledge with their students, teachers need to become inquirers themselves. As Wells (2002) noted, teachers need to become 'the leader of a community of inquiry' (p. 145).

For children who learn and use more than one language, the use of tools and signs is necessarily complex and sometimes requires learning more than one orthography for reading and writing. The onslaught of change in technologies also means that children have to become adept in a range of multiliteracies. Recent research on how children learn to navigate literacy via technology and different symbol systems will also be a feature of this text.

## Myths and legends of literacy teaching

One of the interesting things about working in a field of research for a long time is that we become very aware of the myths and legends surrounding a particular topic. In the early childhood sector, for many years, the myth that 'literacy belongs in the primary school' has often been encountered, as has the myth that early childhood teachers might do some harm if they get too involved with children's emergent literacy (or numeracy for that matter, but that's another story for another time!). Students have returned from their early childhood practicum/teaching placements reporting that when they have attempted to actively support children's literacy development through reading stories with strong repetitive rhyme, helping children to write or playing language games, they have been told 'we don't do that primary school stuff here'. Other more alarming advice

**Guided participation:**  
 learning about social and cultural activities through participation with family members or more competent peers.

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has been overheard by student teachers, who have said that teachers have advised parents who speak another language that they should only speak English to the child, as speaking languages other than English will hamper their ability to learn to read and write in English. Although both positions were arguably well intentioned, they are both horribly wrong in light of recent research (Cunningham et al. 2004; Teale et al. 2009). We hope to explore and dispel the myths around when and how to support literacy in early childhood and primary education and how to best support literacy acquisition in second-language learners. These principles form the foundation for principles of teaching and learning in the primary school setting.

There are, equally, myths around teaching literacy in the primary school. In New Zealand, over many years, like other countries, the ‘reading wars’ have prevailed, staged between the advocates of ‘whole language’ approaches and the advocates of ‘phonics’ (see Nicholson 2000). Although the major reviews of literacy (e.g. NELP 2009) indicate that both approaches have their usefulness in supporting the ability to read and write, the belief system around this myth appears to be ideologically driven and the debates are often histrionic rather than rational. We will revisit the arguments behind these somewhat entrenched positions and find out what recent research has to say about when and how to teach literacy.

Added to approaches to teaching and learning are the myths about certain groups of children and literacy, in particular boys. We will explore the myths around giving

children, and in particular boys, ‘the gift of time’. We will also explore some of the myths around struggling readers and how they can best be supported in the primary school.



*Vaughn listens to a bedtime story with his grandfather*

### What this text covers

This introductory chapter has so far provided an overview of the theoretical position adopted in this text, and it has introduced the myths surrounding reading acquisition and the effectiveness of common pedagogies in early childhood and primary settings. It later suggests ways the text can be approached by early childhood and primary pre-service teacher education students and