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**Investigating the Social Validity of an Early Literacy Assessment Tool in New
Zealand Classrooms**

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Lauren Davidson

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Preface and Acknowledgements

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ABSTRACT

There is vast evidence that emergent literacy skills provide the foundation for reading success. Print concept knowledge and listening comprehension are two emergent literacy skills that make important contributions to reading and can be developed in early childhood. However, some children may start school without the necessary knowledge to succeed with formal literacy instruction and will be at-risk for underachievement. Appropriate assessment and subsequent support can produce positive outcomes for these children, however, there are currently few tools dedicated to assessing print concept knowledge and listening comprehension in the early stages of schooling. The current research involved the development of an assessment tool that assessed these skill areas. Four Year 0-1 teachers in New Zealand then trialled the tool with children who they perceived may need additional literacy support. Interviews were conducted to seek teacher perceptions about the tool's social validity. Findings suggest this tool could be an effective resource for teachers who prefer authentic assessment and it has the potential to provide valuable information about a child's understanding of print concept knowledge and listening comprehension abilities to inform teacher planning. Future directions for related research are discussed including the recommendation for a larger scale study seeking feedback from a greater number of teachers in New Zealand.

Chapter 1. Introduction

Introduction

The purpose of this study was to develop an assessment tool that provided teachers with information for planning individualised literacy support. The assessment tool was designed for Year 0-1 (also referred to as new entrant and Year 1) teachers to use with children who they perceive may need additional support to develop emergent literacy skills in two areas: print concept knowledge (PCK) and listening comprehension (LC). This chapter outlines the importance of literacy skills and how these skills develop from an emergent literacy perspective. This is followed by contextual information around literacy and assessment practices in New Zealand. The concept of social validity is then introduced before presenting an overview of the thesis structure.

Importance of Literacy Skills

Literacy skills are essential foundations for ongoing learning and academic success (Paris, 2005). Children who have not developed adequate literacy skills in their early school years are more likely to need long term learning support, lag behind their peers academically, and have low self-esteem and motivation (Sloat, Beswick & Willms, 2007). There are long term implications for literacy attainment on educational and employment outcomes for individuals (Murphy, Justice, O'Connell, Pentimonti & Kaderavek, 2016) as well as social, health and economic consequences for society (Neumann, 2016).

Literacy Development

Literacy development begins at birth through exposure to various literacy experiences and social interactions, which over time facilitate the acquisition of a range of reading and writing skills (Saracho, 2017; Whitehurst & Lonigan, 1998). The emergent literacy period reflects acquisition of skills and understandings such as scribbling, pretending to read, alphabet knowledge, phonological awareness,

PKC and LC (Puranik & Lonigan, 2014; Saracho, 2017; Sénéchal, LeFevre, Smith-Chant & Colton, 2001). As children acquire emergent literacy skills, they progress along a continuum to reach a stage of conventional literacy (Saracho, 2017; Sénéchal et al., 2001) that involves skills such as decoding, reading comprehension and spelling (The National Early Literacy Panel, 2008). Conventional literacy skills are important for children to be able to participate and learn in a classroom environment and research shows that children who have acquired emergent literacy skills will have a stronger foundation to support reading success (Puranik & Lonigan, 2014; Westerveld, Gillon, van Bysterveldt & Boyd, 2015). Internationally, the importance of emergent literacy for ongoing school achievement is recognised by a growing number of literacy intervention programmes that target children prior to beginning primary school (Bingham & Patton-Terry, 2013).

Literacy and the New Zealand Curriculum

Most children in New Zealand will attend some form of early childhood setting from the age of three (Westerveld et al., 2015). In the early childhood sector, Te Whāriki (Ministry of Education [MoE], 2017a) is the curriculum framework that has principles and strands of learning and development to support a holistic and inclusive learning environment for young children. Te Whāriki was updated in 2016 with an aim of providing a clearer focus on what is most important for New Zealand's youngest learners with links to The New Zealand Curriculum (MoE, 2017a). In the primary sector, the New Zealand Curriculum (MoE, 2007) is a framework designed to provide direction to schools as they develop their own curricula that will best serve their students (MoE, 2017b). Supporting curriculum goals are the Learning Progression Frameworks (MoE, 2015a) and the Literacy Learning Progressions (MoE, 2010) that outline what knowledge and understandings children need at different time points to engage and achieve in the classroom. These provide teachers with clear expectations of what children should be achieving as they progress through literacy instruction (Education Review Office [ERO], 2018).

National Literacy Data

Although literacy is essential to learning achievement, national literacy data does not reflect that New Zealand students are consistently meeting this achievement. In the last two decades, there has been a noticeable trend in New Zealand of a long tail associated with reading underachievement (Greaney & Arrow, 2012; McLachlan & Arrow, 2011). Results from the Progress in International Reading Literacy Study (PIRLS), which is an international education research study carried out every five years to assess the reading literacy achievement of Year 5 students (Education Counts, n.d.), demonstrate this underachievement. The most recent cycle of the PIRLS was carried out in 2015/16 and the findings indicated that the literacy achievement of Year 5 students in New Zealand was declining as it was one of only 10 countries that displayed a lower average achievement compared to the 2011 cycle (TIMSS & PIRLS International Study Centre, 2016).

Children At-Risk

Children will begin primary school with varying degrees of skill and knowledge, which can impact how they will fare when faced with formal reading instruction (Lonigan, Purpura, Wilson, Walker & Clancy-Menchetti, 2013; Rohde, 2015; Sénéchal et al., 2001). 'Children at-risk' refers to children who due to varying factors may be more likely to exhibit difficulties with literacy related tasks and achievement (Justice & Kaderavek, 2004). Identified risk factors for literacy learning difficulties include living in a low-income household (Holliday, Cimetta, Cutshaw, Yaden & Marx, 2014; Justice & Ezell, 2002; Neumann, 2016); being an English language learner (Kieffer, 2010; Pieretti, 2016; Zoski & Erickson, 2016); or having a developmental language disorder (DLD) (Gillon & Macfarlane, 2017; Justice, Logan & Kaderavek, 2017; Murphy et al., 2016). Developmental language disorder is current terminology for unexplained language difficulties (Bishop, 2017). Within a New Zealand context, ethnicity can also be considered a risk factor as Māori and Pasifika students tend to be behind NZ European/Pakeha students in regards to literacy performance (ERO, 2018; Hattie, Brown & Irving, 2015). Such risk factors account for a large proportion of underachieving students

in New Zealand schools (ERO, 2018), however, early identification and subsequent intervention can lead to positive literacy outcomes (Bingham & Patton-Terry, 2013; Murphy et al., 2016). Appropriate and effective assessment tools are therefore needed in order to identify these children in the early stages of schooling.

Literacy Assessment at School Entry

In 2018 ERO recommended “teachers in Year 1 need to increase their professional knowledge and ability to better assess and profile student’s strengths and weaknesses, including all aspects of language and comprehension” (p. 37). Thus, there is an awareness of the need for a range of literacy assessments in Year 0-1 classrooms. In New Zealand, there is great variability in assessment tools used when children start school with the School Entry Assessment (SEA; MoE, 1997) and adaptations of the SEA being very common (ERO, 2015a). The SEA was designed to inform teachers about what children do or do not know when they begin school in the domains of PCK, numeracy and oral language. The specific instrument included in the SEA to assess PCK is Marie Clay’s (2017) Concepts about Print (CAP¹) assessment. The oral language task, Tell Me (McNaughton, 1995), requires a child to retell a story that is read to them and therefore can be considered a measure of LC. Other comprehension assessments such as the Progressive Achievement Tests (PATs; MoE, n.d.a) do not target LC until Year 3.

Social Validity

An assessment that effectively satisfies the needs of teachers must have strong social validity which can be defined as the degree to which an assessment is viewed as being acceptable by the people who are expected to use it (Bagnato, Goins, Pretti-Frontczak & Neisworth, 2014). The degree of social validity will influence if and how an assessment is used. The assessments that are used as part of the SEA were reviewed in 2003 and results indicated there was scope to

¹ Originally published in 1979, however for consistency the most recent edition published in 2017 is referenced throughout this thesis

improve these tools to better meet the needs of teachers (Dewar & Telford, 2003). In recognition that the limited numbers of assessments available have not necessarily achieved high levels of social validity, this thesis documents the development of a tool for assessing PCK and LC in Year 0-1 and a study designed to evaluate its social validity.

Thesis structure

This thesis is comprised of six chapters, the first of which introduces the focus and context of this study. The second chapter reviews the literature on emergent literacy and assessment and highlights the relevance and need for the current study. Existing research was used to guide the development of a new tool designed to authentically assess PCK and LC skills as is described in Chapter three. To investigate its social validity, the new assessment was trialled by teachers in New Zealand who then provided feedback about their perceptions of the tool. The methodology that supported this is explained in Chapter four, followed by presentation of results in Chapter five. Chapter six discusses the key findings including directions for subsequent research.

Chapter 2. Literature Review

Introduction

This chapter provides a comprehensive understanding of the literature related to emergent literacy and assessment. The first section provides an explanation of models of emergent literacy and a discussion about the evidence for developing children's emergent literacy skills. The relationship between emergent literacy and reading achievement is explored before detailing the specific focus areas of the current research. The second section discusses types of assessment used within the education context and discusses the literacy assessments currently available in New Zealand schools for Year 0-1. The literature on assessment of print concept knowledge (PCK) and listening comprehension (LC) is then explored. This chapter concludes with a strong rationale and focus for the current investigation.

Emergent Literacy

Models of emergent literacy.

There are several models that describe the skills and knowledge that constitute emergent literacy (e.g., Mason & Stewart, 1990; Rohde, 2015; Sénéchal et al., 2001; Whitehurst & Lonigan, 1998;) however, the way in which the skills are conceptualised and arranged differ. Mason and Stewart (1990) grouped emergent literacy skills into four categories: concepts and functions; writing and composing; knowledge about letters and words; and listening comprehension and word understanding. In contrast, Whitehurst and Lonigan (1998) used two categories they termed Inside-out and Outside-in processes. Inside-out processes are those that require knowledge about letter-sound rules and relationships, whereas Outside-in processes are focused on how children understand concepts of reading, such as print conventions.

Mason and Stewart (1990) and Whitehurst and Lonigan (1998) included in their models what Sénéchal et al. (2001) categorised as procedural and conceptual knowledge. Whereas Mason and Stewart (1990) and Whitehurst and Lonigan (1998) offered a broad classification of emergent literacy encompassing print knowledge, language and metalinguistic skills, Sénéchal et al. (2001) proposed that language skills (e.g., listening comprehension) and metalinguistic skills (e.g., phonological awareness) should be classed as separate constructs (see Table 1). As per Sénéchal et al 's (2001) model, a benefit of conceptualising emergent literacy as having distinct constructs is that it facilitates assessment of different skills that contribute to a child's overall literacy profile.

Table 1.

Sénéchal et al's Model of Emergent Literacy

Proposed constructs of Emergent Literacy, Language, and Metalinguistic Skills

Emergent Literacy Construct

I. Emergent conceptual knowledge about literacy

- Knowledge about the acts of reading and writing
- Knowledge about the functions of literacy
- Self-perception of learning to read
- Emergent reading in context*

II. Emergent procedural knowledge about literacy

- Preconventional spelling in a variety of situations
- Letter knowledge
- Letter-sound knowledge
- Word reading (with help)

Language Construct

- Narrative knowledge
- Vocabulary
- Listening comprehension

Metalinguistic Skills Construct

- Phonological awareness
 - Syntactic awareness
-

*May include reenactments of familiar storybooks and/or reading familiar print in the environment.

Note. Reproduced from "On Refining Theoretical Models of Emergent Literacy. The Role of Empirical Evidence" by Sénéchal, M., LeFevre, J., Smith-Chant, B. L. and Colton, K. V., 2001. *Journal of School Psychology, 39*(5), p.448.

A more recent model, the Comprehensive Emergent Literacy Model (CELM; Rohde, 2015) highlighted the impact environmental factors related to community, demographics and culture can have on children’s literacy development. The inclusion of environmental factors is reflective of the current educational climate that promotes ecological practice where the various systems, contexts and relationships surrounding a child are taken into consideration when assessment is carried out (Derksen, 2010; Shute & Hogan, 2017). This aligns well with approaches in New Zealand where connections between family, whānau and schools have resulted in positive outcomes for children who are “at risk of underachievement” (ERO, 2015b, p. 1).

Emergent literacy development.

Emergent literacy development begins at birth and is influenced by various factors. Vygotsky’s sociocultural theory is relevant to the emergent literacy perspective as it acknowledges that children learn through interactions they have with others (Sénéchal et al., 2001). Vygotsky’s work highlighted the importance of the cultural context in which a child is embedded and how this influences the interactions they have with others such as parents and teachers (Carlson, Buskist & Martin, 2000). As such, children develop emergent literacy skills through active participation in their surrounding cultural and social environment (Zhang, 2017).

The home literacy environment greatly impacts children’s earliest literacy experiences and these will vary as a result of different cultural and social values, beliefs and circumstance (Hamilton, Hayiou-Thomas, Hulme & Snowling, 2016; Niklas & Schneider, 2015; Tambyraja, Justice, Schmitt & Farquharson, 2017). For example, in a study of Australian families, Neumann (2016) investigated the difference between the home literacy practices of families with high and low socio-economic status (SES). The families of 101 preschool children participated and parents were asked about the number of books and literacy activities in the home, and how often they read to and teach their children literacy concepts such as letter names and sounds. Neumann’s (2016) results indicated that although

there were no significant differences in the amount of time parents spent reading to their children, children from higher SES families had access to a greater number of literacy resources in the home; were more often taught about literacy concepts by their parents; and outperformed the lower SES children on measures of literacy.

The cultural diversity of the New Zealand context means there is not a singular belief system that guides home literacy practices and therefore there is great variation in what literacy experiences children have prior to beginning primary school. In their study that looked at young children's writing development, McNaughton, Kempton and Turoa (1994, cited in McNaughton, 2001) highlighted the different literacy beliefs of Māori and Pakeha parents in New Zealand. In this study, Māori parents were more likely to believe their child would learn to write when they were ready and that teaching these skills was the responsibility of teachers. In contrast, Pakeha parents in this study were more likely to set writing goals and help their children prepare for school by teaching them in the home.

Facilitating emergent literacy development.

There are a range of strategies that can promote emergent literacy development including alphabet games, nursery rhymes, positive parent support and shared reading (National Early Literacy Panel, 2008; Westerveld et al., 2015). For example, Zucker, Justice, Pentimonti, Cabell and Kaderavek (2013) reported that quality shared reading has positive effects on the vocabulary and alphabet knowledge of children aged between three and five-years old. Further, Justice and colleagues (Justice, Kaderavek, Fan, Sofka, & Hunt, 2009; Justice et al., 2017; Justice, McGinty, Piasta, Kaderavek & Fan, 2010) have demonstrated that when adults draw attention to print during shared reading (referred to as print referencing) children's performance on measures of print knowledge increase.

Relationship between emergent literacy skills and reading achievement.

Empirical evidence documents literacy achievement in early childhood as being a key predictor of literacy achievement in later schooling (Bingham & Patton-Terry, 2013). With many important outcomes associated with literacy achievement, there has been ample research into the different skills that young children need to acquire for long-term literacy success. For example, in a study of 426 four-year old children, Storch and Whitehurst (2002) assessed language and literacy performance over six years, specifically looking at code-related skills (including PCK and phonological awareness) and oral language skills (including vocabulary and the ability to recall a narrative). They developed a structural model of language and literacy development that illustrated the predictive value of oral language and code-related skills on reading achievement. Their results indicated that alphabet knowledge, PCK and phonological awareness were critical in the early stages of learning to read.

In 2008, the National Early Literacy Panel (NELP) published a large-scale meta-analysis, representing international research, and identified the literacy skills present in early childhood that were robust predictors of later literacy performance (NELP, 2008). This report identified alphabet knowledge, phonological awareness and rapid naming tasks as being consistently strong predictors of conventional literacy. Further emergent literacy skills that were strong or moderately correlated with later literacy outcomes include writing ability, phonological memory, PCK, reading readiness (a combination of alphabet knowledge, PCK, vocabulary, memory, and phonological awareness), oral language (including LC) and visual processing.

PCK and LC are two skills that consistently appear in models of emergent literacy but have not had as much research dedicated to them as some other emergent literacy skills. For example, in the 2008 NELP report the number of records

generated using the term 'phonological awareness' was 91 whereas 'concepts about print' and 'listening comprehension' only generated 5 and 19 records respectively. From the research that is available, however, it appears that these latter skills are important for children to have to progress along the reading continuum towards conventional reading.

Print concept knowledge.

Print concept knowledge (PCK) can be defined as an awareness and understanding of print and book organisation such as directionality of text, concepts of letters and concepts of words (Justice, Bowles & Skibbe, 2006; Justice & Ezell, 2002). PCK is one component of print knowledge (Justice et al., 2010; Piasta, Justice, McGinty & Kaderavek, 2012) and performance on measures of print knowledge is associated with performance on other literacy measures such as phonological awareness, later spelling, word recognition and reading ability (Justice et al., 2006; Justice et al., 2009; NELP, 2008; Welsch, Sullivan & Justice, 2003). Thus, PCK is needed in order to understand how print works and this understanding is necessary to support development in other reading-related skill areas such as the alphabetic principle and comprehension (Justice & Sofka, 2010).

The importance of PCK is also evident in a growing number of interventions that focus on improving this knowledge, particularly with children in the early childhood years. Justice and colleagues have published several studies that describe interventions that promote print referencing during shared reading and document the positive impact this has on children's PCK (Justice et al., 2009; Justice et al., 2017; Justice et al., 2010). Justice et al. (2017) conducted a one-year post-intervention follow-up comparing the performance of 172 children who had either been in classrooms where teachers used print referencing or in classrooms where teachers used their normal reading style. Children who were exposed to print referencing during shared reading achieved higher scores on a measure of PCK. Although the effect size was modest (0.2), the authors felt this was comparable with other studies of similar design and thus concluded that print

referencing, as an intervention, produces positive growth in children's PCK.

Although print referencing has been shown to promote PCK, research suggests that this is not a technique that teachers often use day-to-day, which can result in children not attending to, and therefore not learning about print during reading experiences (Zucker et al., 2013). For example, Hindman, Connor, Jewkes and Morrison (2008) observed shared reading in the homes and classrooms of 130 families and found that both parents and teachers of preschool aged children did not put emphasis on, or talk about, print features of the storybook being read. A limitation of this study is that there was only a single observation for each setting and so results are based on a one-off occurrence, however, it does indicate that many children may not receive adequate exposure or instruction to develop their PCK prior to beginning school.

Listening comprehension.

Listening comprehension (LC) refers to the ability to understand information that is heard (Hogan, Adlof & Alonzo, 2014) and oral language skills such as LC have been shown to be strong predictors of decoding and reading comprehension (NELP, 2008). Early reading comprehension in turn is a significant predictor of reading achievement in the later years (Sparks, Patton & Murdoch, 2014). In order for comprehension to be achieved, one needs to understand the meaning of individual words; determine meanings of individual sentences; and then construct a "meaningful discourse on the basis of sentential meaning" (Hoover & Tunmer, 1993, p.3). An individual with strong comprehension skills will go beyond making sense of individual sentences by constructing a mental model that represents the bigger picture (Hogan et al., 2014). A mental model is facilitated by cognitive processes working at the word, sentence and text levels of a narrative (Lepola, Lynch, Laakkonen, Silvén & Niemi, 2012) where an individual must integrate parts of a text by identifying meaningful connections and drawing on one's own background knowledge (Kendeou, Bohn-Gettler, White & van den Broek, 2008).

The emergent-comprehension period, as described by Dooley and Matthews (2009) highlights the importance of having meaning-making strategies in place to support text comprehension and overall reading development. One such strategy is the ability to make inferences, which allows an individual to fill in the gaps often left implicit in narratives but that is needed to make sense of the information that is given (Van Kleeck, 2008). Implicit information must be identified and integrated with information provided by the story and background knowledge of the listener as a story unfolds (Filiatrault-Veilleux, Bouchard, Trudeau & Desmarais, 2015; Lepola et al., 2012; Tomkins, Guo & Justice, 2013). Causal structure is an important feature of the theoretical framework that describes comprehension processes and refers to the cause and effect relationship between events in a text (Lynch et al., 2008). These causal connections may be explicit or implicit, with the latter requiring inferences to build meaning and understanding. There is evidence that children as young as four have some awareness of causal connections and can apply this to comprehension questions that require inferences to be made (Filiatrault-Veilleux et al., 2015; Lepola et al., 2012; Tomkins et al., 2013). That young children are able to generate inferences provides a platform for comprehension to be developed and strengthened even before children are decoding and reading text (Dougherty Stahl, 2014; Paris & Paris, 2007). Children who have difficulty making inferences will usually have difficulty in overall comprehension and therefore it is an area to target for prevention and intervention in the early childhood years (Van Kleeck, 2008).

Assessment

When children have not had the opportunity to develop their emergent literacy skills, they may need additional support once they enter formal schooling in order to engage with the curriculum. Appropriate assessment is necessary to identify these children and ensure they are equipped with the skills needed for literacy success. The purpose of assessment in New Zealand schools is not to compare the abilities of individual learners, but to strengthen and develop key competencies that all children possess, albeit at varying levels of ability (ERO, 2018). Schools

should be acknowledging children as individual learners with their own needs, interests and strengths, taking into account existing knowledge and prior learning (ERO, 2018).

Types of assessment used in education.

Formative and summative assessment.

Formative assessment can be conceptualised as an interactive component of pedagogy where “evidence about the learning is used to alter the planned learning work” (Black, 2016, p. 727) and can be considered assessment *for* learning. Such assessment will gather information about the children’s current knowledge to plan the appropriate instruction and activities to support their individual learning goals (Harlen, 2016) and there is evidence that this type of assessment promotes student achievement (Li, 2016; William, Lee, Harrison & Black, 2004). Alternatively, summative assessment is considered assessment *of* learning and provides a summary of what has already been learned at a particular point in time (Harlen, 2016). Summative assessment is often required for accountability purposes and evaluating and reporting student achievement (Laveault & Allal, 2016).

Authentic assessment.

Authentic assessment is geared towards realistic learning goals that reflect the classroom curriculum. It is undertaken in real-life settings rather than children being tested in isolation by a stranger using activities not reflective of their day-to-day learning environment (Neisworth & Bagnato, 2004; Schraeder, Quinn, Stockman & Miller, 1999). Information is gathered in naturally occurring environments typical of the child’s daily routine and circumstances (Bagnato & Ho, 2006; Neisworth & Bagnato, 2004) and this focus on context is a major point of difference compared to conventional, standardised testing (Neisworth & Bagnato, 2004). There is evidence of a growing preference for authentic assessment, particularly when working with young children. For example, Bagnato

et al., (2014) surveyed 1445 educational professionals and found authentic assessment was viewed as superior compared to conventional testing and was seen as more developmentally appropriate for early childhood age groups. This was also the case in an earlier study by Paris and Hoffman (2004) who, based on a survey of 504 American teachers, reported that standardised assessments were used the least by teachers of 3 to 5-year-old children. If it is deemed more appropriate for children prior to beginning school, then this method of assessment should also be appropriate for children as they transition into, and become accustomed to, more formal learning environments.

Pierce, Summer and O'deKirk (2009) also provided teacher perspectives about authentic versus standardised assessment in their construction of The Bridge: A Portfolio Rating Scale of Preschool Literacy Development. They reported that teachers felt standardised testing could miss skills that children actually possess and did not allow for meaningful interactions to be had with the children. Through use of potentially unrealistic testing conditions and redundant test items, conventional testing may not provide useful information about a child's strengths and difficulties (Neisworth & Bagnato, 2004). Therefore, the statistical data produced by conventional assessment will often not provide useful information that assists in planning instruction or support for an individual child (Neisworth & Bagnato, 2004). Authentic assessment can address these issues as well as provide more practical and usable information to inform teacher choices of day-to-day activities and instruction (Pierce et al., 2009; Spinelli, 2008).

Literacy assessments used in years 0-1 in New Zealand.

The current National Administration Guidelines stipulate that schools in New Zealand have the flexibility to choose how and what they assess (MoE, n.d.b). Principles for assessment are based on assessment for learning (i.e. formative assessment) and require identification of both the strengths and learning needs of a child as well as how those needs can be addressed (MoE, n.d.c). A further

principle is that assessment should not only measure a child's achievement but also their progress (i.e., summative assessment).

Data from a survey seeking teacher perceptions of the School Entry Assessment (SEA; MoE, 1997) indicated that although teachers generally held positive views of the PCK component, they felt that some of the items were too difficult for children in new entrant classrooms (Dewar & Telford, 2003). Further, the oral language instrument, Tell Me, was perceived as being time-consuming and difficult to administer (Dewar & Telford, 2003). For both of these components of the SEA, survey results indicated that teachers felt the accompanying texts were not attractive to their students. The SEA is also standardised in nature and this type of assessment often does not take into account cultural or linguistic diversity. It is also normed on typically developing children, which may not always be relevant for learning profiles of children at-risk (Bagnato, 2005; Lazaro, 2017; Macy, Bagnato, Macy & Salaway, 2015).

Running records, which entail "close observation and analysis of reading behaviors" (Briceño & Klein, 2018, p.336), are regularly used by New Zealand teachers to identify the level at which a child is reading and the strategies children use to read (ERO, 2018). This however requires children to have the ability to decode, or to attempt to decode, written words and therefore targets more conventional reading abilities.

The current study is focused on the assessment of PCK and LC because both nationally and internationally there are limited assessment tools available that assess these skills (Justice et al., 2006; Neumann & Neumann, 2014), particularly at a level appropriate for children at-risk in the early stages of schooling. Phonological awareness, another area strongly correlated to later reading achievement (NELP, 2008) was intentionally excluded from the developed tool because assessments for this are more widely available (MoE, 2015b).

Print concept knowledge.

In a review of the assessment tools featured in the School Entry Assessment (SEA), Hattie et al. (2015) analysed datasets submitted to the Ministry of Education between 1997 and 2004. These authors reported that the items that most children found difficult in the concepts about print (CAP) assessment (Clay, 2017) related to word and letter sequencing and reordering. The CAP includes items that require a child to be able to read in order to provide a correct response (Justice et al., 2006) and is appropriate to use within the first two years of schooling (Clay, 2017). This may explain why teachers have perceived it as being too difficult for new entrant children (Dewar & Telford, 2003).

That the CAP contains items that many children starting school may find difficult suggests that it may not assist teachers in differentiating between children who require additional support and children who exhibit typical knowledge for this age group. Hattie et al. (2015) suggested that in New Zealand there was scope for an alternative assessment specifically for children who may exhibit difficulties with PCK when they arrive at school. Identifying these children early is vital (Justice & Sofka, 2010) as children who exhibit literacy difficulties at the start of school are often the same children who exhibit difficulties after one year of formal instruction (Hattie et al., 2015).

One assessment that addresses some of the concerns of the CAP is the Preschool Word and Print Awareness (PWPA) assessment developed by Justice and Ezell (2001) in the United States. This assessment is a modification of the CAP specifically designed for younger children aged three to five-years old. Although there are many similarities in the items found in the PWPA and CAP, the PWPA omitted and modified items to be appropriate for younger children and, unlike the CAP, it uses a commercially available storybook (Justice & Ezell, 2001). Justice et al. (2006) demonstrated that the PWPA is a reliable and valid instrument for examining PCK in children aged three to five-years old. With a sample of 128 children who came from both low and mid SES households and who had a range

of language ability, these researchers showed that PCK is a single trait that the PWPA can reliably estimate. Because the PWPA has an evidence base for use with younger children and performance on the measures of PWPA can be improved by targeted instruction (Justice et al., 2009; Justice et al., 2010; Justice et al., 2017), the items included in the PWPA may be more appropriate for use with Year 0-1 children at-risk as they transition into primary level literacy activities.

Listening comprehension.

The Tell Me task included in the SEA involves a child listening to a story and then retelling that story, enabling assessment of skills such as comprehension and vocabulary (Hattie et al., 2015). As of 2001, this task was used by less than 50% of teachers who reported that they always use the SEA with their new entrant children (Dewar & Telford, 2003). Reasons for this included teacher perceptions that the Tell Me task was time-consuming, difficult to administer and did not provide useful or unique information about a child's abilities; all of which indicate low social validity. Alternative assessments that specifically target LC (e.g. Progressive Achievement Tests) do not focus on LC until Year 3 within New Zealand (MoE, n.d). The literature reviewed, however, suggests that teaching comprehension strategies to young children before they are able to read could assist in their text comprehension once they are participating in formal reading instruction (Tomkins et al., 2013). This is supported by Schickedanz and McGee (2010) who based on results from the 2008 NELP report, suggested that strengthening inferential ability, even in preschool years, warrants further attention.

When assessing children who may have difficulty with literacy learning, the advantage of focusing on LC is that word reading ability is irrelevant (Freed & Cain, 2017). By minimising decoding demands, young children who are not yet reading are still able to interact with stories in meaningful ways (Paris & Paris, 2007). Studies that have explored LC strategies employed by young children have used methods such as aurally presented narratives (Kendeou et al., 2008; Lepola et al.,

2012), audio-visual narratives (Kendeou et al., 2008), wordless picture books (van Kraayenoord & Paris, 1996; Paris & Paris, 2003) and shared reading (Tomkins et al., 2013; Whalon & Hart, 2011). Tasks that assess LC include asking the child to retell a story they have heard (Kendeou et al., 2008; Lepola et al., 2012; Lynch et al., 2008), answer explicit questions about a story (Lepola et al., 2012); create their own narratives based on pictures (van Kraayenoord & Paris, 1996; Tomkins et al., 2013) and make inferences relating to predictions, emotions, goals and causal antecedents or consequences (Kendeou et al., 2008; Lepola et al., 2012; Tomkins et al., 2013). For example, Tomkins et al. (2013) demonstrated how a wordless picture book and a separate traditional storybook could be used to assess inference generation and story comprehension respectively. With a sample of 42 children aged between 3 years 8 months and 5 years 8 months, they found a significant relationship between the ability to make inferences about character goals, emotions and actions and overall story comprehension. Therefore, one way in which LC can be assessed is by reading a storybook with a child and asking them explicit (literal) and implicit (inferential) questions about what is happening.

Current Investigation Aims

The literature reviewed highlights two areas of emergent literacy that are important for children to acquire as they can support development of other literacy skills and contribute to subsequent reading achievement (NELP, 2008). When working with young children there is evidence of a preference for authentic assessment (Bagnato et al., 2014) but there is currently no authentic PCK or LC assessments available to Year 0-1 teachers in New Zealand. To fill this apparent gap, the goal of the current study was to develop an authentic assessment tool that could be used with children at-risk to provide information for planning instructional support to strengthen PCK and LC skills. As this was a pilot study, the objective was to investigate the tool's social validity based on the perceptions of teachers who trialled the tool in their classrooms.

Chapter 3.

Tool Development

Introduction

This chapter explains the development of The Early Print Concept and Listening Comprehension Skills Assessment (EPCLC). The purpose of the EPCLC is to evaluate the print concept knowledge (PCK) and listening comprehension (LC) skills of children at-risk to assist teachers in planning instructional support. The EPCLC also lends itself as a monitoring tool that can be used at different time points enabling teachers to track progress as they target children's identified learning needs.

This chapter provides details about the development of the EPCLC including the literature consulted relating to PCK and LC, and the consideration of construct, content and face validity. Next, social validity is outlined and how this informed aspects of the development process is explained. Information relating to the administration procedure of the EPCLC is given and finally, the use of a commercially available storybook to create an engaging interaction between child and teacher is discussed.

Assessment Items

In order to locate research relevant to the constructs of PCK and LC to guide the tool development process, a literature search of peer-reviewed journals using the Discover database was done. Search terms included 'print concepts', 'concepts about print', 'assessment', 'early literacy', 'emergent literacy', 'listening comprehension', 'linguistic comprehension', 'primary school', and 'pre-school'.

Print concept knowledge.

Two existing assessments of PCK are the CAP (Clay, 2017) and PWPA (Justice & Ezell, 2001), previously mentioned in Chapter 2. These assessments feature questions that assess children's familiarity with print, their understanding of how

books are organised and their knowledge of concepts such as letters and words. The design of the current assessment tool was based on the premise that PCK items that are achievable for a younger age group, such as those in the PWPA that targets children aged three to five-years old, may provide more useful information about a child's current knowledge when that child is perceived to require additional support.

The PWPA excluded items that may be too advanced for preschool children who are likely not yet reading (Justice et al., 2006). With the target children in the current study being those that may require additional literacy support, it is a fair assumption that these children are likely not yet conventional readers, thus no items in the current assessment require the ability to decode written text. If most children, at the start of school, are not competent in word and letter ordering, as seen in the CAP (Hattie et al., 2015), its inclusion does not fit the current purpose; to assist teachers in identifying children who may need additional literacy support over and above regular classroom instruction. Items relating to word and letter ordering will not differentiate between children who have literacy skills typical of a child transitioning from preschool to primary school from those children who do not (Hattie et al., 2015).

The EPCLC includes three items relating to word concepts, as seen in the PWPA. This is an important inclusion as being aware of what a word is, is necessary knowledge in the early stages of reading development (Justice & Ezell, 2001). Word meaning is also an indicator of later reading success (Justice & Sofka, 2010) and in their review Hattie et al. (2015) suggested that the CAP could be adapted to include assessment of word meaning. The current tool addresses this by including questions that require pointing to a single word along with LC checks that contribute to the construction of meaning when exposed to a narrative (Lepola et al., 2012). The final selection of PCK items and the source of where these items come from can be seen in Appendix A, demonstrating the theoretical background behind them. The PWPA (Justice & Ezell, 2001) has clearly been an

influential resource and this has been shown to be a reliable and valid measure of PCK in preschool children (Justice et al., 2006) strengthening the content validity of the current assessment.

Listening comprehension.

The relationship between LC and the ability to read is discussed in Chapter 2, providing the basis for construct validity and why it warrants inclusion in an assessment of emergent literacy. The current assessment includes four types of questions that have been used in previous research with young children. The decision to have four questions was based on the minimum found in a scoping review of 16 studies about inferential comprehension by Filiarault-Veilleux et al. (2015). The EPCLC includes both explicit and implicit questions as Spencer, Goldstein, Kelley, Sherman and McCune (2017) state that it is important to assess both of these skills when determining additional support requirements. Explicit questions provide information on the children's understanding of text and draw on literal information that serves as "the stepping-stones to the high-level thinking" (Dougherty Stahl, 2014, p 385). Explicit questions also give children an opportunity to be successful if they have difficulty making inferences, which can promote their engagement and interaction with the story (Van Kleeck, 2008). A picture walk (Paris & Paris, 2003) is included to encourage the child to think about what the story might be about as pictures have shown to promote inference-making abilities (Tomkins et al., 2013).

Skills required to answer inferential questioning are often present before children begin formal schooling (Filiarault-Veilleux et al., 2015) and research has demonstrated that five-year-olds are capable of making causal inferences, including character goals; predictions of what will happen next in a story; and inferences about internal responses of story characters (Filiatrault-Veilleux et al., 2015; Kendeou et al., 2008; Spencer et al., 2017; Van Kleeck, 2008). Children in this age group have difficulty understanding questions relating to consequences or resolutions of a problem in a story (Filiatrault-Veilleux et al., 2015), hence these

types of questions are not included in the current tool. If questions are too difficult, they will be unlikely to differentiate between children with typical LC skills and those who require additional instructional support. In summary, the questions included in the EPCLC are a predictive inference based on a picture-walk; two explicit questions based on text that is read to the child; a predictive inference based on a goal of the character; and an emotional response inference.

An important consideration when assessing LC is at what point during the story questions are asked. Traditional standardised comprehension assessments require a child to retell parts of a story after the entire text has been read (Freed & Cain, 2017), however research suggests that young children develop better causal relationships if questions are asked during the reading of a story referred to as ‘online’ questioning (Makdissi & Boisclair, 2006; van den Broek, Kendeou, Lousberg & Visser, 2011; Tomkins et al., 2013). The benefit of online questioning is that working memory is engaged so that current information is integrated and “revised and refined and provides the context for interpreting the next word, phrase or event” (Language and Reading Research Consortium, Jiang & Farquharson, 2018, p. 1450) and this may contribute to fewer memory demands compared to traditional procedures (Freed & Cain, 2017). Tomkins et al. (2013) reported that online questioning was a useful method for identifying children who were not understanding the story and pinpointing what parts of the story were not being comprehended. A further benefit of asking questions online is that it can promote a more interactive reading experience, with the child playing an active-role in piecing together the events and meanings of the story as it is read to them (Filiarault-Veilleux et al., 2015). Online questioning is the approach taken for the LC questions embedded in the EPCLC. The implicit questions are positioned in the second half of the story as having the inferential questions situated later in the book allow more causal connections to be made and this has shown to benefit children’s performance (Wenner, 2004; Lynch et al., 2008). The LC questions in the EPCLC can be seen in Appendix B.

Assessment Validity

For an assessment to be valid, it must measure the traits or skills it is intended to measure (David & Sutton, 2004) to meet its specified purpose (Gardner & Galanouli, 2016). For an assessment to be favoured, and therefore used, by the people who it is designed for, there should be a level of acceptance regards the goals, procedures and outcomes of the assessment tool. To ensure a robust assessment tool was developed, several key types of validity are considered below.

Construct and content validity.

Construct validity involves evaluating what qualities an assessment measures and the meaning behind these measures to justify the use of that assessment tool (Messick, 1998). For an assessment to have construct validity, the measures should match “theoretical expectations” (Punch, 2014, p. 240). When there is strong theory and evidence behind an assessment, the construct validity will be more apparent (David & Sutton, 2004). In this instance, the two constructs being assessed are PCK and LC, thus the measures used to assess these should be in line with previous research that has demonstrated the correlation these constructs have to reading achievement.

Content validity refers to the “relevance and representativeness” (Messick, 1998, p.8) of the items that are included in an assessment and this content should measure a range of dimensions that relate to the construct (David & Sutton, 2004). To achieve content validity for the EPCLC, the individual items selected are deemed relevant and representative of PCK and LC skills because they are drawn from existing research. Using existing research to inform the selection of items increases the likelihood that the responses gained from the assessment will adequately reflect the traits of interest (Kane & Bridgeman, 2017), i.e., PCK and LC.

Face validity.

For an assessment to have face validity, it should be a suitable measure of the concept of interest (David & Sutton, 2004). David and Sutton (2004) suggest this should entail critical self-evaluation by the researcher with input from experts within the field. Through extensive reading of studies that have appeared in peer reviewed journal and regular discussion with experienced and knowledgeable supervisors, the researcher is confident that relevant and recent literature has guided the most appropriate PCK and LC measures to meet the intended purpose of the current assessment.

Social validity.

As stated in Chapter 1, social validity is the degree to which an assessment is viewed as being acceptable by the people who are expected to use it (Bagnato et al., 2014). Therefore, during the development of the EPCLC, it was imperative to consider the intended audience of this tool (i.e., Year 0-1 teachers) and draw from evidence that demonstrates what assessment features would be positively received. For example, research about teacher preference for authentic assessment was discussed in Chapter 2 and Bagnato et al. (2014) report that acceptable content and methods, and the capacity for an assessment to be carried out in a natural setting contribute to consumers of that tool perceiving it as being of a high quality. It was therefore important that the design and administration of the assessment was authentic and feasible.

Wolf's (1978) framework defined social validity as consisting of goals, procedures and outcomes with the social significance and consumer satisfaction of these factors being paramount. Goals refer to how important and valued the targeted behaviours or skills are to the consumers; procedures refer to the methods used to target the goals; and outcomes refer to satisfaction with results (Hurley, 2012; Snodgrass, Chung, Meadan & Halle, 2018). Horner et al. (2005) extended Wolf's framework to include criteria relating to an authentic context; implementation agents (i.e., the persons who will administer the assessment or intervention); and

feasibility. Therefore, the current tool needed to target skills that teachers deemed important; have a user-friendly procedure that teachers would embrace; and provide data that could inform planning.

In the research literature, social validity is most often discussed in relation to interventions (for example, Leko, 2014; Snodgrass et al., 2018; Turan & Meadan, 2011), however, it is just as important to ensure that assessment tools offered to teachers are socially valid to increase the likelihood that they will be used effectively (Kramer, 2011). Leko (2014) discusses how interventions with low social validity will likely not be implemented properly, or may not be used at all. If teachers do not like or agree with an intervention, they are unlikely to see it through over time. This same reasoning can be applied to assessment; if teachers do not think an assessment is appropriate, feasible or useful, they are unlikely to use it. To ensure that the EPCLC meets such requirements, it is appropriate to investigate its social validity in the initial stages of development. The impact that early social validation can have on a new assessment tool is that it allows an opportunity for adjustment to be made to ensure the goals, procedures and outcomes have value and are acceptable and compatible in the context in which they are applied (Hurley, 2012; Snodgrass et al., 2018).

Creating an Interactive Activity

The EPCLC was designed for use with a storybook that could be presented in an interactive manner. Strong engagement from children was desired so a friendly, responsive communication style is promoted using an age-appropriate, commercially available storybook similar to what children might read at home or in the library. One of the benefits of storybook reading is that it can be used to target both LC and PCK simultaneously, thus materials, time and effort are kept to a minimum (Justice & Ezell, 2004). This section discusses the selection of the storybook used with the EPCLC with reference to other PCK and LC assessments that have utilised a storybook approach.

Storybook reading.

The CAP and PWPA assessments are both administered as an interactive task between the child and the assessor (Clay, 2017; Justice & Ezell, 2001). In both cases, children are asked to help the assessor read a storybook into which assessment questions are embedded so that an interaction occurs (Justice & Ezell, 2001). Likewise LC can be assessed via explicit and implicit questions being embedded into a story (Thurman & McGrath, 2008; Spencer et al. 2017) and a shared storybook interaction provides an opportunity for conversations and spontaneous dialogue to be elicited from the child that can help them build an understanding of the text (ERO, 2017). Thus, listening tasks provide an avenue to assess comprehension even if that child has difficulty decoding words or has not had adequate experience with books (Paris & Hoffman, 2004).

Whereas specifically designed books accompany the CAP, the current protocol is modeled on Justice and Ezell (2001) who selected a commercially available storybook for the PWPA. The use of a commercially available storybook is likely to be more authentic than a purpose-built storybook as they contain age-appropriate content typical of other books children would come across (Lynch et al., 2008) thus it is deemed a good fit for the nature of the current assessment. The storybook to be used in conjunction with the EPCLC is called *Dino Duckling*, written by Alison Murray and published in 2017. As this is a recent publication, it was hoped that it would not be overly familiar for many children and it is thought that the dinosaur theme of the storybook will be high interest for many young children.

This book was selected because it contains print features that have shown to be beneficial for PCK as they draw attention to print, such as variation in text size (Justice & Sofka, 2010). The selected book also has an adequate storyline to allow the inclusion of LC questions that relate to story grammar (Desmarais, Nadeau, Trudeau, Filiatrault-Veilleux & Mexes-Fournier, 2013; Kendeou et al, 2009). When the questions are related to the story grammar and structure children are likely to

be more successful at making inferences (Filiarault-Veilleux et al., 2015) because links between events are more detectable. Colourful illustration, as featured in the storybook, can also aid the inference-making process (Tomkins et al., 2013). The storybook contains culturally neutral content and teachers will be asked for their perceptions of appropriateness for the linguistic and culturally diverse children in their classrooms.

Procedures

The procedure for assessment administration is a particularly important aspect of social validity, as clarity, ease and efficiency will impact how teachers perceive the assessment. This section explains the EPCLC procedure, including the instructions, use of a script and how child responses are recorded.

Assessment protocol and instructions.

The EPCLC does not have explicit instruction on where participants should administer the assessment as the desire is for it to fit within each teacher's classroom practices. An assessment will be more authentic when it is administered in the natural environment of the people it is designed for (Leko, 2014; Turan & Meadan, 2011).

The instructions for the PCK components of the assessment are adapted from the PWPA (Justice & Ezell, 2001) and the CAP (Clay, 2017). The current assessment only contains teacher responses for those questions that ask the child to indicate where the teacher should be reading (for example, *"There are three lines on this page (point to each). Which one do I read first?"*). These responses (for example, *"I'm going to read this one first"*) are deemed necessary as if the child points to an incorrect location the teacher could not coherently continue reading the story. No feedback is given to the child, other than for on-task behaviour, as per the procedure of the PWPA (Justice & Ezell, 2001).

The picture walk is associated with a prediction inference. The participant will ask the child to look through the first three or four pages of the book and then ask the child what they think the story might be about. This gives children a chance to become acquainted with the story prior to being questioned and is a recommended inclusion when working with young children (Fountas & Pinnell, 1996; cited in Paris & Paris, 2003) The LC questions pertaining to character goal and emotional response (i.e., the implicit questions) are followed by a 'why' probe. This was originally seen in Paris and Paris (2003) and has been used more recently by Tomkins et al. (2013). The reason for including this is to get a deeper understanding of what the child comprehends. Paris and Paris (2003) suggest that this will distinguish between children who make "shallow" inferences and those who can connect the inference to other events in the story. Refer to Appendix B to view the full instructions provided to participants.

Using a script.

The use of a script is beneficial to even the most experienced teachers as it means they do not need to come up with questions on the spot at the same time as reading a story (Van Kleeck, 2008). From a tool development perspective, it ensures that the questions are embedded in appropriate places in the selected storybook (Dougherty Stahl, 2014). *Dino Duckling* was read several times to identify appropriate placement of the PCK items and LC questions and a script was developed to guide participants through each of the assessment items.

Recording responses.

A check-box style of recording is provided for the PCK items where teachers record if the child was correct, incorrect or made no response to each item. LC questions are recorded verbatim with space provided for teachers to write the children's responses on the assessment form. How teachers approached the verbatim responses (i.e., writing in real time or audio recorded to write up later) was not made explicit in the instructions and therefore there was scope for individuals to choose how they wished to manage this aspect of administration.

This assessment does not have a scoring schedule so the teacher is required to make judgments about the child's performance to build a profile of what literacy knowledge they possess which contributes to the authentic nature of this assessment (Stanley et al, 2009 cited in Black 2016).

Chapter 4.

Methodology

Introduction

This chapter describes the methodological approach undertaken to investigate the social validity of the Early Print Concept and Listening Comprehension Skills Assessment (EPCLC). The first part of this chapter introduces the qualitative design and states why this approach was appropriate for the current study before outlining phenomenology as the strategy of inquiry chosen. The data collection method is then discussed, as is the position of the researcher. The second part of this chapter describes the recruitment of participants followed by an explanation of the data collection procedure. Ethical considerations are acknowledged before introducing the data analysis framework and explaining the data analysis procedure.

Qualitative Research Design

Qualitative research captures the lived experiences of participants and produces descriptive data of the participant's perspective derived from their writing, speaking and/or observed behaviours (Taylor, Bogdan & DeVault, 2016; Tracey, 2013). Qualitative research will generally be carried out in a holistic manner where the researcher studies people or things in their natural environment, reflective of everyday life (Punch, 2014; Tracy, 2013). Use of a qualitative design was pertinent to investigating social validity in the current study as it allowed an in-depth, comprehensive examination of how the assessment tool fits within the natural classroom setting as perceived by the participants (Leko, 2014). As they are direct consumers (Schwartz & Bear, 1991 cited in Turan & Meadan, 2011) participants' feedback will inform whether modification of the tool is required.

Phenomenological strategy of inquiry.

Phenomenology is the study of how an individual or group of persons experience a particular phenomena, concept or event (Creswell & Poth, 2018). Qualitative

research, from a phenomenological perspective, is directed at understanding people's perceptions from their own reality and experiences (Taylor et al., 2016). There is a focus on the 'what' and 'how' of the experience in order to develop "a composite description of the essence of the experience for all of the individuals" (Creswell & Poth, 2018, p. 75). The phenomenon of interest in the current study was the degree to which the developed tool met key dimensions of social validity.

In literature pertaining to social validity specifically, subjective evaluation is a reoccurring concept in regard to collecting information about participant perceptions of goals, procedures and outcomes (Hurley, 2012; Schlosser, 2003; Snodgrass, 2018). A phenomenological approach, with its similarities to subjective evaluation in mind, is therefore appropriate for the current study. When there is a desire to gain subjective understanding from participants, Seidman (2013) believes that interviewing best meets this purpose.

Interviews.

Punch and Oancea (2014) define interviews as "conversations between the researcher and one or more participants, in which meanings are elicited, articulated, explored or constructed" (p. 214). An advantage of interviewing is that the interviewer can ask questions that target specific types of information that may not be observable (Creswell, 2015). When evaluating social validity, surveys and questionnaires may also be used (Kramer, 2011), however, Williamson (2017a) suggests that when these require box-ticking or limited open-ended questions, they do not support in-depth understanding about the reasoning behind individual perceptions. Therefore one-on-one interviews were considered an appropriate choice for the current investigation, in accordance with the phenomenological approach of this study (Creswell & Poth, 2018).

Interviews are considered to vary along a continuum in regards to how structured they are; some will be structured with pre-determined questions and response categories whereas others will be less rigid and allow respondents to contribute

more varied input by using open-ended questions, providing the opportunity to articulate their own interpretation of their experience (Punch & Oancea, 2014). The interview process employed for the current study is positioned towards the unstructured end of the continuum. Although there were planned questions relating to specific social validity dimensions, the order in which these were asked was dependent on the answers and points of discussion that participants offered, for example, in some cases the participants provided information that made subsequent questions redundant. The open-ended questions sought in-depth examples from the participants and this facilitated unplanned questioning that provided the opportunity for the researcher to seek further information about their overall experience of using the tool. This flexibility allowed the researcher to follow the plan but also to “follow the conversation of the interviewee” (Creswell, 2015, p. 220).

Although there are many benefits of using interviews as a data collection method, there are also limitations. These limitations include the fact there is no guarantee that what a respondent says during the interview actually represents what that person believes, or what they do (Taylor et al., 2016). There is also the risk that the presence of the researcher may influence how the respondent answers questions that may result in biased responses (Creswell, 2003). To lessen the impact of such limitations on the current study, respondents were asked for their own personal experience using the assessment tool and at times were asked to provide examples. As the questions were based on their own experience, participants were not under pressure to respond in a certain way; there were no right or wrong answers.

Position of the researcher.

In qualitative research, credibility can be increased when the researcher states their position in relation to the research (Leko, 2014; Patton, 2015). It was important that the researcher reflected on how her personal experiences and viewpoints could shape the study by acknowledging potential biases or conflicts of

interest (Creswell, 2003). The researcher's background as a postgraduate student of educational psychology comes from an interest in psychology and how this can be applied to learning and behavior, however, she herself is not a teacher. As such, the researcher did not bring underlying judgment about best teacher practices to this study. Acknowledging that individuals have different experience, preferences and ways of doing things enabled the researcher to actively listen to the experience of each participant without imparting her own thoughts or perspectives into the interview discussion.

The researcher aimed to promote a relaxed and conversational interaction during the interview process (Taylor et al., 2016). From the information and feedback the participants provided, the researcher acknowledges the collaborative nature of this study; by taking a neutral stance during the interviews, the researcher was able to listen to the participants as being sources of knowledge and experience who were active contributors to the research project.

Participants, Procedure and Data Collection

This section describes how participants were recruited and the procedure for trialling the EPCLC. It then discusses the development of the interview guide and how the interviews were conducted to collect qualitative data.

Participant recruitment.

For the current study, participants needed to be teachers of Year 0-1 children who were willing to trial the assessment tool. The recruitment process involved convenience sampling (Punch & Oancea, 2014) drawing on personal contacts from the researcher and her supervisors. In total, an information letter (see Appendix C) was sent to eight principals seeking their approval (see Appendix D) to have their Year 0-1 teachers participate in the study and carry out assessments during class time. Of these principals, four agreed to share teacher information sheets (see Appendix E) with their Year 0-1 teachers. From the schools that had permission granted by the principal, five teachers returned consent forms (see

Appendix F) to the researcher and agreed to participate in the study. However, one teacher was unable to make herself available for an interview so the total number of participants included in the data analysis was four.

After contact was made with the teachers via email, the researcher personally delivered the assessment materials to each participant and reinforced that if any questions arose or clarification was required, they could contact her. Included in the assessment materials were one copy of the *Dino Duckling* storybook and three copies of the EPCLC, which included information about the study (see Appendix B). The assessment materials were delivered in Week 4 of Term 2 2018 and teachers were asked to complete the assessments so that interviews could be completed prior to the end of Term 2 (Week 10).

Assessment procedure.

The participants were asked to select two or three children who they perceived may require additional literacy support and with whom they could trial the EPCLC. There were no specified criteria that these children needed to meet. Exact timings and settings for the administration of the assessment were at the discretion of each participant. In order to get valid information about the administration process, it was desirable for participants to be able to carry out the assessment in a manner that worked within their own respective classrooms.

The instructions provided requested the participants to follow the order of items as presented in the assessment tool and to use the script provided. Questions could be repeated once and participants were instructed to point to the text as they read. Although feedback was not to be given, participants were asked to engage with the children if they offered additional or spontaneous talk about the story.

The EPCLC was administered to individual children in a one-off session and teachers were provided with a reflection sheet (see Appendix G) to record their

immediate reactions to the assessment. The reflection sheet had sections relating to goals, procedures and outcomes as per the social validity framework that provided the basis for the interview guide. Teachers were asked to retain their notes so they could refer to them during the interviews that were to follow.

Interview guide.

An interview guide can aid qualitative interviewing by ensuring key areas of interest are explored with each participant (Taylor et al., 2016). An interview guide was developed for this study to target three dimensions of social validity: goals, procedures and outcomes (see Appendix H). By assessing all three dimensions, the results can be considered more robust (Snodgrass, 2018). Open-ended interview questions were constructed so as to gain perceptive feedback from the participants for each dimension. For example, to investigate how the procedure of the assessment was perceived, participants were asked *'Can you describe how you initiated the assessment with the children?'* and *'How does this assessment approach fit within your own classroom and teaching practice?'*

Both operational and reflective questions were included so that participants were asked about what they did, as well as their personal opinions about the assessment tool. This links back to the phenomenological approach where the essence of the experience is derived from what and how questions (Creswell & Poth, 2018). There were between two and four main questions for each dimension with each of these having a series of probes to target specific areas of interest and to encourage elaboration when necessary (Patton, 2015). The interview questions and probes were reviewed and modified with discussion and guidance from the researcher's supervisors. The researcher piloted the interview guide with an early education teacher to ensure the questions were clear. This also allowed the researcher to familiarise herself with, and practice the delivery of, each question.

Interview procedure.

Data were collected via interviews with each individual participant. Initially, it was the intention of the researcher to conduct interviews via Skype and this was specified in the information sheets provided to the participants. However, three of the participants requested using FaceTime instead of Skype. The fourth participant was able to use FaceTime at the suggestion of the researcher. The researcher contacted each participant via email to schedule a time to conduct the interviews, which varied for each individual, ranging from release-time during the school day (N=2) to evenings when the participants were at home (N=2).

To initiate the interviews, and to set a relaxed tone, the researcher started each interview by asking the participant how they were and engaging in brief small talk. Participants were reminded about the purpose of the study and the intention of the interview (i.e., to gain their perspective about the tool they had trialled) and that there were no right or wrong answers. Participants were reminded that the interview would be audio recorded and were informed when the recording had commenced. The open-ended questions and probes were used as per the interview guide.

Three of the interviews were completed within the anticipated timeframe of 30 minutes. One interview went over this timeframe and was conducted over two sessions. To be courteous to this participant, the researcher checked if she wished to continue with the interview after the initial interview went over time. The participant was happy to continue and a follow up interview session was arranged. At the completion of each interview, the participants were thanked for their time and reminded that they would receive a copy of the interview transcript when it was completed giving them the opportunity to check and amend if required.

Recording and transcription.

The researcher audio recorded the interviews to ensure that all the important information was accurately captured (Taylor et al., 2016). All participants had given their consent in advance for their interview to be audio recorded and were reminded by the interviewer that the recording could be stopped at any time. Interviews were audio-recorded using QuickTime Player software on the researchers' Mac computer. A second audio recording was done as a backup using iPhone voice recording software placed near the microphone of the Mac computer during the interview.

An independent company sourced by the researcher completed verbatim transcripts of the interviews and then returned the transcripts to the researcher via email. To check for accuracy, and increase reliability, the researcher read each transcript several times to check for any obvious errors as recommended by Gibbs (2007). On three occasions the researcher referred back to the audio recordings, to ensure the transcription was correct.

Member checking.

To check for accuracy, and to support credibility (Mills, 2014) member checking was employed to provide participants with the opportunity to comment or request changes if they felt their answers had not portrayed their actual perceptions and beliefs (Williamson, 2017b). Participants were sent their interview transcript via email and were asked if they wished to make any changes. One participant requested a change be made; this however was grammatical and did not alter the answer to the given question in any way. All participants confirmed their consent for their transcript to be used for data analysis.

Ethical Considerations

The Massey University Human Ethics Committee granted a low risk ethics approval for this study. This study was considered low risk as it did not directly involve children and it did not pose any anticipated risk to participants. The

researcher discussed ethical considerations with her supervisors at the outset of this research and two main areas were identified that required attention: informed consent and privacy and confidentiality.

Informed consent.

Both principals and participants were provided with information sheets detailing what their involvement in the study would require should they choose to participate. Principals were asked to sign an approval form if they agreed to teachers in their school being invited to participate and teachers who chose to participate were asked to sign a consent form. This form stated that they understood what the study entailed and that they consented to interviews being audio recorded.

Participants were informed that they could withdraw from participation at any time up until they had confirmed their transcript release. Contact information for both the researcher and her primary supervisor were provided so that any further questions or clarification could be sought. No participants made contact to request further information or clarification on any aspect of this study and signed forms were returned to the researcher before any assessment materials were handed over.

Privacy and confidentiality.

The participants were informed that their responses would be confidential and no identifying information about them or their school would be included. Information gathered from this research was only accessible to the researcher and her two supervisors. All audio recordings were deleted when data analysis and results were completed.

Data Analysis

This section provides detailed steps of how the data analysis was conducted. First, the framework selected is described before explaining how the raw data was coded, reduced and analysed in order to derive meaningful results.

Data analysis framework.

Often the aim of qualitative research is not to test existing theories but to inductively analyse data and explore the themes that emerge (Creswell, 2003; Taylor et al., 2016). Inductive reasoning does not require initial hypotheses to be made, but rather theory and understanding is generated and developed as themes emerge from the collected data (Thomas, 2006; Williamson, 2017b). From here, patterns will be identified and eventually conclusions can be drawn (Tracy, 2013).

Taylor et al. (2016) highlight that there are several ways a researcher can approach their qualitative data analysis and previous studies that have investigated social validity have used various forms of inductive thematic analyses (see Broer, Doyle & Giangreco, 2005; Leko, 2014). Although it is noted that there is a deductive element to the current study in that the analysis is guided by the research objective (Neale, 2015; Thomas, 2006), the framework selected was inductive thematic analysis using data-driven codes as explained by DeCuir-Gunby, Marshall and McCulloch (2011). Codes are labels that assign meaning to words, phrases and paragraphs documented in the transcripts (DeCuir-Gunby et al., 2011). Corbin and Strauss (2008) identify two levels of coding: open-coding and axial-coding. Open-coding is the first stage which is the initial creation of codes and concepts based on ideas and meanings that emerge from raw data. The second stage is axial coding which involves looking for meaningful connections between the identified codes.

Data analysis procedure.

Prior to the commencement of coding, the researcher read each transcript several times over a number of days. Taylor et al. (2016) encourage reading and re-reading raw data to increase familiarity, which is an important step to take before analysis begins. After the researcher had familiarised herself with each transcript, the first stage of analysis required developing a codebook. DeCuir-Gunby et al. (2011) describe codebooks as “a set of codes, definitions and examples used as a guide to help analyse interview data” (p. 138). To create the codes, pieces of text were highlighted so that the researcher could search for themes and categories and labels were assigned that reflected the meaning of these themes and categories. This is the essence of an inductive approach (Thomas, 2006). The codebook developed for this study (see Appendix I) had three components as per the process described by DeCuir-Gunby et al. (2011). These components were the code name, a definition of what constituted that code, and extractions from the raw data that served as examples. The researcher’s supervisors provided feedback as to the specificity, code boundaries and clarity of the definitions as a check of reliability and trustworthiness (Mills, 2014).

Once a set of codes had been established and the transcript data had been reduced into manageable chunks of information (DeCuir-Gunby et al., 2011), it was possible to search for meaningful connections where codes that reflected an overall theme were grouped together. These main themes reflected the most important information in relation to the research objectives. When coding was completed, there were seven main themes and twenty-six subthemes, which were organised in an excel file to aid clarity and navigation.

The next step in the analysis stage was interpreting the phrase and paragraph extracts sitting under each code and iterative categorisation (IC) was selected to guide this process. The first stage of IC is to summarise key points found in the extracts and attach identifiers to these main ideas (Neale, 2015). The identifiers represent the source of the information. This meant that as the researcher

worked through the extracts it was evident where the same point had been made by more than one participant and conversely, patterns also emerged that showed distinct differences in participant perceptions. Once the extracts sitting within each code had been summarised, they were systematically reviewed and arranged in a logical order to support an emerging narrative (Neale, 2015). The second stage of IC is interpretative analysis where patterns and explanations are identified that can then be linked back to the investigation aims. Because of the small sample size ($n=4$), the procedure as described by Neale (2015) was simplified and completed in an excel file. A summary of the main points in each subcategory was entered in note form, highlighting when more than one participant touched on a particular point, and then interpretation of the results was derived from these main points. The results of this interpretative analysis are provided in the following chapter.

Chapter 5.

Results

Introduction

The purpose of this study was to develop an authentic assessment tool that could be used in the classroom environment to assess print concept knowledge (PCK) and listening comprehension (LC). For an assessment to be used accurately and consistently, it is important that the consumers of that assessment perceive it be useful, feasible and effective. Therefore, the social validity of the Early Print Concept and Listening Comprehension Skills Assessment (EPCLC) was investigated by analysing the perceptions of teachers who trialled it.

This chapter provides information about the participants who were included in the data analysis and gives a brief overview of their current assessment practices and the children with whom they trialled the tool. This is to provide contextual information for the subsequent thematic analysis and is referred to in the discussion. The thematic analysis is based on the information participants provided in the interviews and was guided by iterative categorisation as discussed in Chapter 4.

Participant Demographics

The participating schools were located in urban areas outside of major cities in the lower North Island, serving mainly mid to low-income families evidenced by their decile rating. In New Zealand, decile 1 schools are the 10% of schools that have the highest proportion of children from low SES households (MoE, 2018). Two schools had one participating teacher each and a third school had two participating teachers. All participants were female and their teaching experience ranged from 5 to 30+ years. Overall, all participants had at least three years experience teaching Year 0-1 students as seen in Table 2.

Table 2

Participant Demographics

Participant code	Years teaching experience	Number of years teaching new entrant or Year 1 children	Year currently teaching	School decile rating
T1	5	3	New entrant	3
T2	30+	10	New entrant	5
T3	7	4	New entrant & Year 1	5
T4	18	18	New entrant & Year 1	3

Each participant was assigned a code so that patterns of individual’s responses could be identified, which assisted the researcher’s interpretation of the findings.

Contextual Information

Current assessment practices.

As part of their school entry assessment procedure, all four participants reported that they assess alphabet knowledge and concepts about print with all children who enter their class. One participant said that when children do not know letters and sounds she will work with them before going through the full concepts about print assessment, rather than take them through an assessment that she believes would be too challenging for them. Another participant said that often children will be able to identify a letter but do not know what the sound is, so she introduced a sound check into her assessment. One participant said she also does

a phonological awareness test and another said she also does a full Record of Oral Language (Clay, Gill, Glynn, McNaughton & Salmon, 2015). Participants did not report administering additional assessments to children they perceived may need additional support.

Child characteristics.

All participants conducted the assessment with at least two children and there was variation in the characteristics of the children the participants selected to trial the EPCLC with. Three participants selected children who were new to school. One of these participants also selected a child who she knew would understand what she was doing and would be able to follow the content of the story and corresponding questions. The other participant selected a child who had been at school for approximately 5 months. The third participant assessed four children in total, two who were new to school and whom she perceived had not had a lot of prior literacy input. The third child had English as a second language and was only exposed to English at school; Indian was spoken at home. The fourth child was perceived by this participant to be quite able with excellent oral language skills. The fourth participant selected two children who were not confident with reading and who appeared not to be making progress in this area.

Thematic Analysis

After all four transcripts had been coded according to the procedures outlined in Chapter 4, there were a total of 7 main themes and 26 subthemes as shown in Table 3. Themes that emerged from the data aligned with the social validity dimensions previously discussed and as such goals, procedures and outcomes became the overarching themes for the thematic analysis. Goals refer to the value placed on the targeted skills and style of assessment; procedures refer to methods used to assess these skills; and outcomes refer to the satisfaction with data gained from the EPCLC.

Table 3.

Data-driven Themes from Thematic Analysis

Overarching Theme	Main Theme	Subthemes
Goals	Assessment Content	Importance of PCK and LC Inclusion of LC Punctuation Modifications
	Style	Authentic versus Standardised Assessment Assessment Style Pedagogy
	Book Qualities	Story Content Cultural Relevance Print Features Book Choice
	Engagement	Signs of Engagement Spontaneous Comments
Procedure	Procedure	Environment Clear Instructions Administration Time Recording Responses Fluency
Outcomes	Assessment Data	Usefulness of data gained Using the EPCLC Children's Empathy Children's Performance
	Reflective Practice	Teaching Considerations Instruction Overall Perceptions

Goals

The main themes that reflect goals are Assessment Content, Style, Book Qualities and Engagement. The data from the subthemes for each of these are reported below.

Assessment content.

Importance of print concept knowledge and listening comprehension.

Three participants thought LC was an important area of knowledge to develop. One participant talked about the impact LC has on reading enjoyment, for example T2 stated:

They're not getting the joy of reading from the story first because they're not understanding what we're reading about and some of them, I'm thinking of one particular boy, you know, he'll just laugh because everybody else is laughing, so yeah that comprehension is really important.

This participant also stated that the EPCLC was similar to the CAP assessment she uses after the children have been at school for one year but that the EPCLC was at a more appropriate level of difficulty for children beginning school. For example, in terms of the PCK items that were included in the EPCLC, this participant said: "I don't want to say basic but they were to the point and about things that we talk about when we're learning to read".

Another participant (T4) mentioned that teachers sometimes make assumptions that children understand what they are saying and that it is important teachers are able to 'simplify' or explain things in several different ways to ensure children who do not have strong comprehension skills are able to 'get it'.

In terms of the relevance of targeting both PCK and LC, one participant (T4) felt this was more suited to children that had had sufficient input from home and were already bringing emergent literacy skills to the classroom.

Inclusion of listening comprehension.

Three participants explicitly stated that they liked the inclusion of LC questions, and two explicitly stated that this was not something they currently assessed. Participants perceived the inclusion of LC to be somewhat unique and added to the overall effectiveness of this tool, thus inclusion of the LC items was perceived to be a positive aspect of the EPCLC. T3 stated: “there was nothing that I thought ‘oh you’ve missed that’ and I really liked that addition of the comprehension stuff”.

Punctuation.

Two participants (T1 and T4) discussed that punctuation knowledge was not assessed. These participants made a direct comparison to Marie Clay’s (2017) CAP assessment and felt that these items were missing from the current tool. One of these participants (T1) also commented on other items in the CAP that were intentionally excluded from the EPCLC, she stated: “no question about punctuation, there’s no question about recognising any words, like in the Marie Clay, it’s like backwards words like ‘on’ and ‘no’ and ‘was’ and ‘saw’, that’s missing”. In contrast, a third participant (T2) stated that she does not focus on punctuation until children are actually able to do some basic reading.

Modifications.

The same two participants (T1 and T4) who commented on the lack of punctuation in the EPCLC thought that the inclusion of such items would improve the tool. These participants considered items that assessed punctuation knowledge as being important for the identification of skills to target through instructional reading and writing.

Style.

Authentic versus standardised assessment.

Overall the teachers indicated that they liked the authentic approach to assessment. One participant (T2) discussed why authentic assessment is preferable:

This assessment gave me data that I can plan; I think I even wrote that down, [I can] implement a program tailored to individual needs. Where the standard one gives you a number of where they're at and doesn't tell you what they need, so this is one that I could use.

Another participant (T4) suggested that it was not necessarily the type of assessment that mattered but rather the purpose behind the testing that is important.

Assessment style.

Two participants commented on the informality of the EPCLC and that this is how they want to assess the children in their classroom, for example T3 commented that: "it really felt like a nice, a nice way – they didn't realise that I was assessing them in a way, if you know what I mean, which was great. That's exactly what I want".

In contrast, a different participant (T1) said she would expect there to be stanines for this tool, as she would use it as a formal assessment. The idea of having a formal scoring system was not mentioned by any other participants. One participant commented that although informal, it is still targeting key skills that are important to assess when children are learning to read and provides information that can be used for planning. Two of the participants (T2 & T3) specifically commented that the EPCLC would be preferable over the assessments they currently use.

Pedagogy.

Three participants discussed that they run a play-based classroom and as such they usually do their assessments in the classroom environment, whether it is one-on-one or small groups, for example, T4 stated: “most of my testing is done in the classroom environment with whatever is going on around”.

Book qualities.

Story content.

Three participants discussed how the dinosaur theme of the book was attractive to children and got the children’s attention. T1 commented: “because it’s dinosaurs and all my children for whatever reason, most 5-year-olds love dinosaurs so that was good”. Two participants talked about the children being able to relate to the familial storyline of the book, for example: T3 commented that “it was also a storyline that they could relate to, like you know his mum, like a family kind of storyline”. One participant commented that the book was quite neutral and another participant commented that overall it was a lovely story but it did have some complex elements, such as the concept of 'migration'.

Cultural relevance.

Three teachers commented that they did not have children with diverse cultural or language backgrounds in their classrooms and so could not provide an answer when asked about the appropriateness of the book for children with diverse backgrounds. Only one participant could comment because she had one child who spoke English as a second language and this was one of the children she assessed. She perceived the assessment to be hard for this child at times however there was not a clear statement about whether she thought this was due to the storybook used or to the actual assessment questions. T4 stated:

I think that was hard for him. He did have a bit of shrugging shoulders and just sometimes no response, so yeah. We did get a lot of Nos. I think

that was...yeah I have just got a lot of – hesitantly touching a letter, lots of pausing, so there were lots of Nos between pages 11 and 14.

Print features.

Two participants commented on the font used for 'a' and 'g', they referred to it as 'fancy' and said it was unfamiliar to children in their classroom. However, this was not perceived as a negative. Another teacher commented that although some of the print features might have been novel to one of her newer students, overall the children in her class have been exposed to various print features in other storybooks, T2 commented:

For the newbie I think that was sort of a bit, it was a bit different whereas my older student, it sort of you know, we've read books that have the words going around and down so it wasn't new.

Two participants did not like the print features included in this storybook. One of these participants (T1) perceived there to be a mismatch between what she teaches in class and what is shown in the book, she said: "on page 1 and 2, when it says 'BOOM BOOM CRUNCH, it's all capitals and it's something that I wouldn't model, so I wouldn't want them to use it in a testing book".

With regard to the font specifically, this participant (T1) commented that she did not like that it was "up and down and all around" and she felt that the print features actually took away from the PCK aspect of the assessment, she stated that,

With the font and the text all over the place, it takes away from the concept about the print that we're testing them on. Whereas if you would use a junior reader, that's a really basic here is a picture, here is a text, this is what I want to know that you know.

The other participant who did not like the font (T4) questioned whether the bold print throughout the story would be distracting for the children, however this same participant also acknowledged when the bold print was a positive feature. This participant felt that for beginning readers, there should be bigger spaces between the words and that the font needed to be big enough to clearly see what letter they might be pointing at when answering PCK questions.

Book choice.

In contrast to Clay's (2017) CAP assessment, which has a set of specifically designed storybooks to accompany it, a commercially available storybook was selected for the EPCLC to increase child interest and promote engagement. Overall participants found the storybook to be engaging and preferred it to the books that they currently use to assess PCK. Two teachers commented that *Dino Duckling* was a book that children would come across in everyday life or pick up at the library, for example T3 stated that: "with it being a normal book, yea it was just really easy, like I could see that slotting in wherever you know, it just looks like a normal thing that I'm doing in the classroom". One participant commented that the book selected also increased authenticity but felt that if it is being used as a testing book it should not be in circulation, T1 commented that: "I think the authenticity of it was the fact that it's a storybook, so it was a book that was readily engaged with rather than a test".

Two participants confirmed that the storybook was one that they had not seen before and was also a novel story for the children they assessed and three participants stated that the book was enjoyable and interesting for the children, for example T3 commented: "I actually did have to move children away, which I thought actually is a positive because clearly it was an interesting looking book for them".

Engagement.

Signs of engagement.

Generally participants reported that children engaged well with the story and the assessment. Participants reported that children were interested in finding out what would happen next, that they followed along with the story and that they appeared to think about what was happening. There was only one participant (T4) who reported that one of the children she assessed was not engaged, evident by his lack of attention: “I noticed that he was not engaged with the story. He was actually just looking around and was not engaged”. This participant went on to question whether there was too much happening on the page:

Was it too busy on both of those pages with those little... you have got the dinosaur swimming, then its underwater with the fish – there is actually a lot for the children to look at and is it maybe too much?

Spontaneous comments.

Three participants said that children made spontaneous comments. These included the children talking about their knowledge of dinosaurs, commenting on what was happening in the illustrations and asking questions based on what they had heard, for example T4 commented: “When we went to page 8 on the comprehension and ‘what did Mama Duck teach her babies?’ his response was ‘to eat fish, to go underwater to get fish...How do they breathe underwater?’”

Procedure

Procedure was a main theme that was identified from the data and is discussed with reference to seven subthemes: Environment, Clear instructions, Administration, Recording responses, Time, Fluency and Script.

Procedure.

Environment.

All four participants administered the assessment in the natural classroom environment. Only one participant (T1) also reported doing an assessment during release time. This participant preferred the quiet, on-on-one release time as she found the classroom environment had too many distractions. Although another participant who carried out the assessment in the classroom environment said there was the potential for distraction, she felt that she had strategies in place to reduce this and so the classroom environment was not problematic, for example T4 stated: "So I am still doing what I need to do but my hand is up and the child knows because that is how I have operated my room and it means that you don't interrupt".

Three of the four participants liked the fact that this assessment could easily be administered in the classroom while the rest of the class is doing other activities. One participant (T3) commented: "it was just so easy to do in the classroom environment" and that the EPCLC was easier to do than Clay's (2017) CAP assessment: "I don't do the concepts about print part of my entry assessment in class, because it's not engaging at all, it's really hard, they really need quiet time to focus whereas I didn't need that with this".

Clear instructions.

All participants perceived the instructions to be generally clear. Two stated they were very clear and one of these participants even said she could get a teacher aide to carry out the assessment if need be: "it's so easy that a teacher aide could do it if I needed to, you know, like that's how easy the steps are to read".

One participant felt that the instructions were clear overall, but did suggest that seeing the assessment modelled prior to using it would have been helpful. She also asked for more specific guidelines for the picture walk, she said: "maybe it could be a little bit clearer in saying flick through the illustrations and let the child

flick through the pages up to page eight possibly”. This participant also had moments of being unsure because she was used to using Clay's (2017) CAP and the EPCLC does not follow the exact same procedure, for example T4 commented that: “I read and pointed one-to-one and then I got myself a little confused because I thought, am I actually supposed to point one-to-one?”

Administration.

Two participants had no difficulty at all with the administration of the assessment with T1 commenting that it was very similar to the CAP that she currently uses. Another participant found the EPCLC easier to administer the second time she used it, for example T2 commented that: “the second time I was probably better because of the added bits where you have the comprehension, but yes it was easy to administer”. This same participant (T2) discussed how the page numbers did not match up to the question numbers, which did cause her some confusion. However, she said that was down to her processing and she did not feel anything on the assessment needed to be changed. The fourth participant found it straightforward apart from a couple of clarifications that were mentioned under the *Clear instructions* subtheme above.

Time.

Most of the participants felt the time taken to administer the assessment was reasonable and was similar to other assessments they use T2 mentioned: “I took longer the first time basically because it was new to me. I think really it’s no different to the 5 year assessment, but it wasn’t extra time”. Another participant perceived the assessment to take a bit longer than the CAP she has used before due to the picture walk at the beginning of the assessment.

Recording responses.

Two participants did not write the LC responses directly onto the assessment form. One of these participants "scribbled on paper" and wrote it on the form later as she felt this would keep the fluency of the assessment going. The other

participant, who also found that stopping to write exactly what the children were saying interrupted the flow, used an audio recorder and wrote child responses down later. She felt this made the assessment even more authentic for the children. Neither participant felt this made for extra work or took away from their satisfaction with the assessment procedure. Two participants considered the tick boxes easy with one commenting on the similarity this had to the CAP assessment she already uses.

Fluency.

T1 commented that: “because you’re asking questions as you go through the story, you lose the comprehension”. This participant felt that children would lose the flow of the story when they are asked for their understanding during the assessment as opposed to asking the LC questions at the end. One participant (T3) commented on the scripted LC questions. She saw the benefit in having the LC questions planned in advance so that specific skills or areas of comprehension are targeted: “because when you’re just asking questions, you know just off the cuff, you’re not thinking of some of those areas of it”.

A different participant commented on PCK item 10 as she felt this stopped the flow of the story. This item requires the participant to read the top line of the page (consisting of three words) and then stop and ask the child, ‘hmmm where do I go now?’

Outcomes

The overarching Outcome theme included information about whether the EPCLC provided useful information that participants could use to plan instruction for children who may need additional support in developing their PCK and LC skills. The three main themes that emerged relating to Outcomes were Assessment data, Reflective practice and Overall perceptions about the tool.

Assessment data.

Usefulness of data gained.

One participant stated that the items included in the EPCLC are at an appropriate level and target concepts that are relevant to children as they are starting to learn to read and becoming more familiar with books. T2 stated:

It's very much like the 6-Year Net in the concepts part, but it was more, with the concepts it's just yes or no basically so it's a standardised test. Whereas this had the children talking about what's going on in the book, so this was more what we do when we're learning to read so it's a good tool.

Another participant (T1) felt that she would not need to complete the entire assessment to gain information about the child's PKC and she felt it was quite a big assessment for a "minimal amount of knowledge", she said that:

I would know by just saying can you pass me that book, can you show me what's on the front before we start, already I know if they're going to have book knowledge without them doing the whole test.

Another participant questioned whether two of the PCK items gave them information representative of the child's ability, for example T4 stated:

I don't know if that was confusion on his part of capital letter and lower case, or whether he looked and saw the capital 'S' and saw the lower case 's', knew that they were matching but it was a stab in the dark. So I don't think that for me gave me a clear indicator if this child knew that was a capital letter.

Two participants found the inclusion of LC questions provided information that increased the overall effectiveness of the assessment in terms of what

information they were gaining about the children and liked that it targeted comprehension. For example, T3 commented:

I really liked the addition of the comprehension stuff, like that was, that's quite valuable you know, because you get quite a good picture of where they're lacking, or where they need a bit of extra help. So that was good.

These same participants perceived the LC questions to provide information that they did not get from other assessments they have used, and in some cases they found their assumptions about what certain children did or did not know were questioned through the child's performance on this assessment, for example T2 commented:

What do you think might happen next? 'I don't know', and yet that was a child that I would have, you know, when we've talked about our reading when we're reading they've been able to say. So whether it was just, I don't know what that was. But yeah, that was a good aspect of the tool.

Another participant said that there were a lot of 'teaching tips' that could come from this assessment and a third participant highlighted that the data gained from this assessment would assist her in planning for individual needs.

Insight gained from assessment data

Using the Early Print Concept and Listening Comprehension Skills Assessment.

Three participants discussed when or with whom they would use this assessment based on their experience trialling it. One participant perceived the EPCLC to be a good assessment to use with children after they had been at school for approximately 6 weeks and had been exposed to "some of the basics". T2 stated:

I don't think I'd do it as part of the basic assessment I do for SEA within their first couple of weeks but once they've taken a few books home just to see whether they're actually understanding what reading is all about, rather than just pointing to words.

A different participant (T1) thought this assessment would be suited to a school entry assessment or as an anniversary assessment (after the first year of school for example) and she would use it as a formal assessment. She said she would not use it as an indicator of where a child is at as she felt she could get that information from a reader (a series of books that children use when they are learning to read, that increase in difficulty and are used throughout the first three years of school). A third participant (T4) thought the EPCLC would be a good assessment to use with more able children rather than children perceived to need additional support.

Children's empathy.

Three participants discussed how they gained information about a child's level of empathy from the LC comprehension question 'How does Dino feel?' Participants liked the inclusion of this type of question, for example T3 stated that: "it also showed, interestingly enough, the empathy that came out in some of them and didn't in other children which I found was quite interesting".

Children's performance.

Participants gave examples of some of the children's responses during the assessment, which gives insight into the type of information they gained. Several of the participants had some surprises when children's responses were not what they would have expected. The participants discussed the types of questions the children did not appear to know and it is evident that children had difficulty across both the PCK and LC domains. For example, T4 said: "When I said to him 'can you show me just one letter on this page?' he said, 'what's a letter?'". Another

participant discussed an unexpected response to the comprehension question, 'How does Dino feel?' T2 commented:

I got 'because he was too big and my dad told me some adults do scribbles', and it was like out of left field so yeah, just that focusing on what we're actually doing and what the purpose is.

Reflective practice

Teaching considerations.

Two participants commented that they have become more aware of the language they use in the classroom, for example one participant had started using 'title of the book' instead of 'name of the book': "the language – when I said 'can you show me the title of the book' they didn't know what I was saying, so that was a teaching point for me". Another participant said that she has started exposing children to the 'funny g and a'.

T2 said she is now more aware about making assumptions that children know what is going to happen next and incorporating this into her teaching. In regard to talking about characters and inferences this participant said: "I think I'll do more of that because I've made the inference that they actually know what's going on". The inclusion of the comprehension questions also inspired one participant to spend more time on reading interactions with her students, T1 said she would like to:

Actually take a book and just read it because that is not something I do, because release time is all about testing, so just to take a book and read it, and get that comprehension and really delve into, you know, why they think something is so.

Two participants commented on the possibility of using the EPCLC as a monitoring tool to track child progress. One participant thought having a series of books to use with the assessment would be useful. In regard to having two or three books

that the EPCLC could be applied to, T3 explained that: “if I had a child that was really struggling with a lot of those concepts, I would want to put that into my teaching, and then revisit it, it would be cool to have a different one”. Another participant (T4) thought it would be interesting to use the same book to compare child performance at school entry with their performance when they turn six.

Instruction.

Three of the participants discussed how this assessment provided information that could be used in class-wide reading sessions. One participant talked about print concepts that could be highlighted as part of her dialogue when doing a shared big book, for example T3 mentioned:

Talking about ‘oh which one’, ‘where am I going to start reading next’. I’ve just turned the page, ‘oh there’s a lot of words on here, where do I start?’ and you know, kind of targeting those children that I do know are having a problem with that.

T3 also commented that she is applying the information into other contexts, for example: “we’ve been talking a lot about first and last of all kinds of things, you know first and last in the line, you know rather than the leader”. Another participant commented that during group work, there could be discussion around novel features in the book being read.

Overall Perception.

There were mixed responses from participants when asked if they would use this assessment again. Two participants (T2 and T3) were quite clear that yes they would use this assessment again, one participant mentioned the ease and engagement she got from it and the other mentioned the addition of the LC questions as reasons why. A different participant (T1) gave differing answers at one point saying no she wouldn’t as she didn’t like the font of the book, and then

later said she would possibly modify and use it: “so yeah would I use it, I’d probably use it but I’d add my own things that are missing”.

Another participant (T4) was noncommittal about whether she would use it again but appeared to refer more to teaching the concepts rather than assessing them, for example T4 commented: “I liked it and I think I would probably use it more...here I am thinking again, I might use it more like a shared big book”. This participant also perceived the EPCLC to be an attempt to improve what is already available.

Summary

The results indicate that participant perceptions about the EPCLC varied. Overall, participants found the assessment gained positive engagement from the children they assessed and aside from two participants disliking aspects of the font; the story selected for this assessment appeared to be appropriate and fit for purpose. The inclusion of LC was perceived as a positive aspect of this tool. Participants who commented on aspects they disliked were quite specific with the most commonly mentioned being the exclusion of punctuation items. Overall, the procedure for this assessment is acceptable and the information generated was considered useful and usable by two of the four participants; the degree of social validity therefore differs among participants. Possible reasons for this and implications of this are discussed in the following chapter.

Chapter 6.

Discussion

Introduction

Print concept knowledge (PCK) and listening comprehension (LC) are two areas of emergent literacy knowledge that contribute to successful reading outcomes for children (NELP, 2008). Compared to other emergent literacy skills such as alphabet knowledge and phonological awareness, there are limited assessment tools available that teachers can use to guide support and instruction. Having such tools available is particularly important for children at-risk in the early stages of schooling thus the Early Print Concept and Listening Comprehension Skills Assessment (EPCLC) was developed to provide teachers with an authentic way to gain information about children's PCK and LC skills. The findings discussed directly relate to the social validity of the EPCLC as perceived by the teachers who trialled it. Strengths of the study as well as considerations for subsequent research are considered before this chapter concludes with the researcher's final thoughts.

Investigating Social Validity

The phenomenological approach employed in this study involved gaining an understanding of the lived experience participants had with the assessment tool. The phenomenon of interest was the degree to which the developed tool met key dimensions of social validity. Social validity can be considered to be on a continuum rather than being either present or absent (Wolery & Gast, 1990 cited in Leko, 2014) and this chapter delineates between findings that support or detract from the social validity of the EPCLC to evaluate if modification of the tool is required (Snodgrass et al. 2018). Three dimensions of social validity were investigated: goals, procedures and outcomes as per Wolf's (1979) social validity framework. In the current study, goals refer to the value placed on the targeted skills and style of assessment; procedures refer to methods used to assess these skills; and outcomes refer to the satisfaction with data gained. Investigating all

three dimensions allowed a more robust evaluation of the EPCLC (Snodgrass et al. 2018).

Contextual information.

The data analysed for this investigation came from interviews with four participants who had trialled the EPCLC with children in Year 0-1 classrooms. Participants were requested to select children who they perceived may need additional literacy support, however, some participants also chose children who would be considered to have strong literacy skills. Potential implications of this are discussed later in this chapter. All participants were familiar with Clay's (2017) Concepts about print (CAP) assessment, but they did not report using any form of LC assessment.

It is necessary in this chapter to distinguish the background information and the procedural instructions provided to participants from the instructions for delivery of each item. To avoid confusion background information and procedural instructions are referred to as 'instructions' whereas the delivery of each item is referred to as 'administration' for the remainder of this chapter.

Findings that support social validity.

Goals.

Importance and value of assessment content.

The LC component of the EPCLC was perceived as being a particularly positive and valued aspect of this tool and was acknowledged as being an important skill to develop. The findings demonstrated that the participants perceived that they gained valuable information about the children's levels of understanding, which they could use and apply to their teaching. Some of the information they gained even challenged previous assumptions that they had made. This aligns with research demonstrating that use of explicit and implicit questioning during shared reading can provide useful information about LC ability (Kendeou et al., 2008;

Lepola et al., 2012) and embedding these questions into a traditional storybook was met with satisfaction by the participants. As there is no other LC assessment that the participants in this study use, the EPCLC appears to provide a unique tool that teachers viewed positively and thus makes positive contributions to the social validity of the EPCLC.

Generally the content of the PCK questions were regarded by participants as being similar to Clay's (2017) CAP assessment, however, two participants (T2 & T3) felt that the EPCLC was more aligned to the skills children need when they are first learning to read, which suggests that these participants valued the skills that were included and could relate these skills to the purpose of the assessment.

Engagement and authenticity.

The EPCLC utilised a commercially available storybook to promote engagement and authenticity, which is the preferred way of assessing for many teachers as discussed in Chapter 2 (Bagnato et al., 2014; Paris & Hoffman, 2004; Pierce et al., 2009). All participants liked the authentic nature of the EPCLC, but two participants voiced their preference for this style more so than others. These two participants (T2 & T3) felt the EPCLC provided an informal assessment experience that was stress-free for children. This complements authentic assessment literature that shows support for informal assessment procedures (e.g., Spinelli, 2008; Snodgrass et al., 2018).

Further support that the EPCLC provided participants with an authentic assessment were their reported perceptions that *Dino Duckling* was considered the same type of book that children might choose from the library. All participants reported satisfactory levels of engagement from the children, evidenced by spontaneous and inquisitive questions and talk throughout the assessment, and this was viewed as a very positive aspect of their experience trialling the EPCLC. Participant comments indicated that the storybook used with the EPCLC was more desirable than what they currently have available to assess PCK (specific reference

was made to the series of books that accompany Clay's (2017) CAP assessment). This is in line with previous research that suggested teachers would like to see the books that accompany the CAP be replaced (Dewar & Telford, 2003). A benefit of an engaging assessment is that children who are engaged are likely to put in more effort and concentration with increased "motivation, curiosity and interest" (Skinner & Belmont, 1993, p. 572) and this can promote literacy learning (Marchand & Furrer, 2014). The consistent engagement achieved by the EPCLC indicates that use of a high interest, age appropriate book adds to the effectiveness of this assessment and contributes to the social validity of the EPCLC.

Procedures.

Environment and administration.

For an assessment to be considered authentic, it should be part of the natural setting (Neisworth & Bagnato, 2004) using familiar materials and tasks (Shraeder et al., 1999). Three of the four participants felt this assessment could easily be conducted with an individual child in the classroom while the remaining children in the class did other activities. This paired with feedback from participants that children were relaxed and the assessment mirrored a typical reading activity suggests authenticity was achieved and indicates support for the use of the EPCLC in a busy classroom environment.

Participants found the administration to be clear however future research involving the EPCLC could provide a full demonstration to participants prior to their using it to address some minor queries that arose. From a social validity perspective, that three of the four participants perceived the EPCLC as being informal leads the researcher to conclude that the EPCLC will suit the assessment and teaching style of many, but not necessarily all, teachers in New Zealand. This may be reflective of pedagogy, as the three participants who perceived the EPCLC to be informal were also the participants who were satisfied administering the

assessment during class time and who also reported that they run play-based classrooms.

Although the recording of verbatim responses for the LC questions was not considered problematic, one participant reported that she audio recorded her assessment so that she could write up child responses later and thus not stop the flow of questioning during administration. This participant acknowledged it did mean more time was taken when she went back to transcribe the recordings however she did not perceive this to be problematic. When reviewing existing research that has required children to verbally respond to comprehension questions, several studies have utilised audio recording to capture verbatim responses (e.g., Paris & Paris, 2007; Spencer et al., 2017; Tomkins et al., 2013). It would be interesting to observe a larger sample of teachers where some audio recorded child responses and others manually record verbatim answers in real time and compare the interactions that they had with the children. Overall, the EPCLC is feasible, takes an acceptable amount of time, and is easy to administer which suggests there are high levels of social validity for the procedural aspect of the tool (Leko, 2014).

Outcomes.

Usefulness of assessment data.

Although the intention was for the EPCLC to support individualised planning, the participants also reported that they were able to apply their findings to class-wide instruction that all children could benefit from. This demonstrates that the participants were able to naturally link outcomes of the assessment to practices they already have in place (Thurman & McGrath, 2008). For example, during big-book reading (whole class), participants discussed that they could be more explicit with discussion about PCK items, as well as talk more about characters and events that require inferences to build meaning. This suggests that participants could see value in what was gained from the assessment tool, which will contribute to their overall satisfaction with the assessment outcomes.

Overall perceptions.

A good indicator of how socially valid an assessment is, is whether it will continue to be used over time (Horner et al., 2005; Leko, 2014). Results from the current study suggest half of the participants (T2 & T3) would incorporate the EPCLC into their assessment practices, and a very positive outcome for this study was that one participant sought permission to continue using the EPCLC. These participants were satisfied with what they gained from the assessment and stated that it provides something they do not currently have. These two factors demonstrate the strength of the social validity of the EPCLC (Schlosser, 2003). Of particular note, supporting continued use of the EPCLC were the level of engagement gained and the addition of the LC questions.

Findings that detract from social validity.

Goals.

Importance and value of assessment content.

Two participants (T1 & T4) highlighted that punctuation items were not included in the EPCLC and they felt this was a limitation. Clay's (2017) CAP assessment does include measures of punctuation, however it is important to highlight that the CAP can be used with 5 to 7-year-old children. The EPCLC, however, was designed to target emergent literacy skills that can be acquired in the preschool years and as such is more aligned with the Preschool Word and Print Awareness assessment (PWPA; Justice & Ezell, 2001), which eliminated punctuation items to focus on skills that are more easily attainable for 3 to 5-year-old children (see Justice et al., 2006). Further, in their evaluation of CAP as part of the School Entry Assessment (SEA; Ministry of Education, 1997) Hattie et al. (2015) identified the items that were most appropriate for children at-risk and that could differentiate between 5-year-olds of differing ability. These items did not include punctuation, providing further support for excluding punctuation from the EPCLC. Although the PCK content did not satisfy two of the participants and therefore reduces the social validity of the assessment for these participants, modifying the EPCLC to include

punctuation is not an option, as this would detract from the purpose of this tool and would reduce content validity. Therefore, the EPCLC may be more attractive to teachers who do not teach punctuation until children are further along in their literacy development and have some early conventional reading skills.

Engagement and authenticity.

One participant (T1) perceived the EPCLC to be a formal tool that should have stanines. This was surprising given the explicit information provided about the authentic nature of the assessment as well as the instructions provided. This perception does not align with the intended purpose of the EPCLC so it is possible that this participant did not fully absorb the instructions and study information provided or that these documents needed to be clearer. Alternatively it could reflect that this participant's general view of assessment does not align with current perspectives about authentic approaches reported in the literature (for example, Bagnato et al., 2014), and if a more formal tool or reporting system is preferred, the EPCLC is unlikely to be one that she would choose to use. This participant also said using simple 'Readers' (books that contain a picture on one page and simple plain text on the other) would allow her to just ask a question and find out if the child does or does not know the concept, which also suggests a possible preference for a more standardised procedure.

Two participants (T1 & T4) did not like the print features that were contained in the storybook that accompanied the EPCLC and perceived the font, size, and layout of print to be problematic, which has implications for the social validity of the EPCLC for these two participants. The term 'print salience' is used to refer to the amount of interesting and changeable fonts and environmental print such as labels and speech bubbles that a storybook has (Dynea, Justice, Pentimonti & Piasta, 2013; Justice & Sofka, 2010). *Dino Duckling* was selected because of the variation in font type, size and orientation with text positioned on top of colourful illustrations. One participant stated that there was a mismatch between print features in *Dino Duckling* and what she teaches in class (e.g., the use of capital

letters). However, it could be argued that this actually provides an opportunity to discuss different ways that words can be represented or could be used as an explicit example of capital letters. A benefit of selecting a book that has interesting print features is that it can stimulate such discussion between teachers and children (Justice & Sofka, 2010).

Further rationale for the importance of print salience is evidence from eye tracker technology that shows young children attend more to print that is visually salient (Justice, Skibbe, Canning & Lankford, 2005; Neumann, Summerfield & Neumann, 2015). This suggests that experiencing different representations of letters and words during the emergent literacy stage can benefit PCK, especially that of children at-risk who may have had limited experience and exposure to variations in print prior to school. When using traditional storybooks, young children prefer to look at pictures (Justice et al. 2005) but when print is positioned within illustrations, this can actually promote attention to print (Dynea et al., 2013). To further investigate the perspectives of participants who would prefer alternative print, it would be interesting to see if print referencing is a strategy that these teachers employ in the classroom, and if so what types of books are used. Research suggests that teachers should be encouraged to read books that expose children to interesting and changeable print as this in turn increases children's learning about print (Justice & Ezell, 2002). Dynea et al. (2013) found that teachers' use of print referencing increased when there were more print salient features present, and so storybooks, such as *Dino Duckling* would be appropriate for this.

Procedure.

Overall there were no findings that strongly detracted from the social validity of the procedure developed for the EPCLC.

Outcomes.

Usefulness of assessment data.

One participant (T1) did not find the assessment data to be as useful and made an interesting point that she felt that taking a child through the entire assessment was not necessarily needed as she would know if a child had sufficient book knowledge by their general handling of books. Consideration of this leads to the question of how this participant would identify the specific strengths and needs of a child at-risk. Although teacher judgments about children's performance have been shown to positively correlate with direct measures of emergent literacy, the evidence is not as strong for those children who perform in the lowest quartile ($\leq 25^{\text{th}}$ percentile) on direct measures of print concept knowledge, alphabet knowledge and emergent writing (Cabell, Justice, Zucker & Kilday, 2009). Cabell et al. (2009) caution against using only teacher report for identifying children who may have "significant difficulties in literacy related development relative to their peers" (p. 171). An implication of this is that teachers should be utilising an array of assessment (their own observation included) to develop a comprehensive profile of children's strengths and needs to guide their instructional planning and support.

Overall perceptions.

The two participants (T1 & T4) who wanted punctuation to be added and who did not like the print features in the storybook were not clear about whether they would use the EPCLC again, but from their pattern of responses it could be concluded that these participants did not feel the EPCLC was as useful overall. Although there were many positive comments from these participants, it is unlikely they would use the EPCLC in its current format. Although modification of the EPCLC might improve social validity for these two participants, making these changes to increase the social validity would result in an assessment that no longer represented the current purpose.

The overall “essence” of the findings.

As per the phenomenological approach of this study, which aims to describe the “essence” of the collective experience (Creswell & Poth, 2018), the findings suggest that the goals and procedures of the EPCLC achieved strong levels of social validity. Outcomes, however, were less consistent and therefore did not reach the same level of social validity. Overall, the EPCLC was perceived to be a good fit within play-based classrooms and it could be successfully administered in the natural environment. Participants received strong engagement from children and all participants liked the authenticity of the storybook, *Dino Duckling*. The administration for the EPCLC was clear and acceptable however the instructions comprising background information and procedural elements may need to be made clearer to ensure the purpose of the assessment is understood. This is discussed further under ‘Future Considerations’.

Strengths of the Current Study

Creswell and Poth (2018) discuss features that promote validity of a phenomenological study including reflexivity. Reflexivity refers to the “process of self-reflection that researchers engage in to generate awareness about their actions, feelings and perceptions” (Darawsheh, 2014, p. 561) and this was addressed throughout the data collection and analysis phases of the current study. For example, the researcher clearly stated her position and through self-reflection felt this enabled a neutral and non-biased style of communication to be possible when interviewing participants. To ensure that the perceptions of the participants were accurately captured, member checking was employed so that participants could check and confirm the data that was professionally transcribed. Throughout the analysis stage, regular peer-review was employed where the researcher gained feedback from her supervisors and adjustments were made when necessary. Regular peer-review also promoted trustworthiness of the data-driven codes and themes in that they were identified from the transcripts and were not a product of over-interpretation by the researcher (Rodham, Fox & Doran, 2015). Member checking and peer review also contributed to the

credibility of the findings (Mills, 2014) and demonstrate the rigor applied to the current study.

A methodological strength of the current study was that the implementation agents were teachers who administered the assessment in children's natural classroom environment increasing authenticity (Horner et al., 2005; Turan & Meadan, 2011) and thus represents the experiences teachers could have with this assessment in everyday practice. It is important however to acknowledge the small sample size of the current study and that the current findings are not intended to be generalised to all teachers in the New Zealand context.

Future Considerations

Analysis of participant feedback has resulted in a question around clarity of purpose and whether this is due to insufficient information provided to participants or whether some participants had misconceptions about the intended purpose and use of the EPCLC. The participants who perceived punctuation to be an important aspect of PCK were also the participants who made several references to Clay's (2017) CAP assessment throughout their interviews. It is possible that these participants perceived the EPCLC to simply be an update of the CAP using a more authentic and engaging storybook, instead of an alternative measure of PCK targeting a lower level of skill to be used specifically with children at-risk. Indeed one participant viewed the EPCLC as an attempt to improve what is already available. A further point that questions clarity were the mixed perceptions about when, and with whom, the assessment would be most appropriate. For example, there was one participant who felt the EPCLC was more suitable to use with children who have adequate literacy skills, as opposed to those who do not. That this participant selected a child with whom to trial the EPCLC, who she perceived had good literacy skills, again raises the issue of clarity of purpose and has implications for the findings. Neisworth and Bagnato (2004) discuss the concept of congruence in the development of assessment materials. Children who take part in trialling of the tool should have similar characteristics to

the children who would be assessed by that tool outside of the tool development phase. This can impact how the suitability of procedures and content are perceived.

When considering the reliability of the current findings, consideration should be given as to whether the participants would hold the same perceptions about the EPCLC if they were to use the assessment again (Mills, 2014). It is unknown if teacher perceptions would be the same had the rationale and evidence for this assessment been disclosed in full to the participants prior to them using the tool; if the researcher had observed their administration of the tool; or if more specific characteristics of children with whom they should trial the tool had been explicitly stated. Further research would be needed to investigate whether providing participants with more background information and evidence about when and with whom to use the EPCLC would alter their approach and subsequent perceptions. Alternatively, conducting the same study with a larger sample of participants would give a better indication of whether the information provided is clear, given half of the participants in the current study did appear to use the tool as intended.

Although the small sample size of four is within the range recommended for phenomenological studies (Creswell & Poth, 2018), a larger, more diverse sample of participants would be needed to generalise the results of the current study to other contexts (Mills, 2014); even within the sample of four there was variations as to how the EPCLC fit with classroom and teacher practices. There are several findings that would benefit from further investigation with a larger sample size. In the New Zealand context, it is important to consider whether assessments and assessment materials are appropriate for children from culturally and linguistically diverse backgrounds. It was surprising that most of the participants stated they could not comment on cultural appropriateness, as they did not have students from diverse backgrounds in their classrooms. It would be worthwhile recruiting a larger sample of participants from a range of areas in New Zealand to better

investigate this aspect of the EPCLC insofar as the themes and vocabulary contained in the *Dino Duckling* storybook as well as understanding of the vocabulary of the assessment questions. Further, subsequent trials of the EPCLC in New Zealand would need to recruit classrooms where both Māori and Pasifika children could partake in the assessment trial, as a number of these children experience literacy difficulties on school entry (ERO, 2018) and it is critical that the cultural appropriateness of the EPCLC is more thoroughly considered.

As participant feedback was the only data source used, the fidelity to which the administration of the EPCLC was followed is unknown. Fidelity in this instance is defined as the degree to which the assessment delivery followed the stipulated protocols (Walton, Spector, Tombor & Michie, 2017). It is recommended that future research into the EPCLC include observations of the participants administering the assessment, which could increase the robustness of conclusions drawn.

Final Thoughts

Overall, the researcher proposes that the EPCLC delivers an authentic assessment option for teachers who prefer an informal, naturalistic, engaging style of assessment and who are knowledgeable about emergent literacy skills and how these can be developed. It would seem that using commercially available, high interest storybooks is a promising way to assess young children's literacy skills in the early stages of schooling.

Currently there is little research that specifically looks at the social validity of assessments. This study contributes to literature in this area by demonstrating the many variables that can affect the social validity of emergent literacy assessments. For example, this study has shown how assessments should fit within existing teacher practices and these practices may influence how an assessment is perceived and the subsequent uptake of an assessment. The

current study demonstrates the need for careful consideration of content and style that also maintains the integrity of the assessment purpose and the outcomes of this study warrant further investigation of the EPCLC in the New Zealand context. Specifically, trialling the EPCLC with a larger sample of teachers is recommended to gain deeper insight into perspectives of the assessment and to determine whether the current format meets the needs of a wider range of teachers and students in the New Zealand context.

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Appendices

Appendix A: Original Source of Print Concept Knowledge Items

Print Concept Item	Original Source
Book Orientation	CAP ² & PWPA ³
Book Title	PWPA
Print Carries the Message	CAP & PWPA
Directionality (left to right)	PWPA
Left page is read before the Right page	PWPA
Directionality (top to bottom)	PWPA
Return Sweep	CAP
Letter Concept – Show just one letter	PWPA
Letter Concept – Show first letter	PWPA
Capital Letter	PWPA
Word Concept - Show just one word	CAP & PWPA
Word Concept – Show first word	PWPA
Word Concept – Show Last Word	PWPA

² Concepts about Print (Clay, 2017)

³ Preschool Word and Print Awareness (Justice & Ezell, 2001)

Appendix B: The Early Print Concept and Listening Comprehension Skills Assessment



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The Early Print Concept and Listening Comprehension Skills Assessment

Research Objective

The purpose of this study is to investigate the social validity of a new assessment tool that targets children's knowledge of print concepts and their listening comprehension ability. This assessment tool is designed to be used with children who you perceive may require additional support in order to progress and succeed as they transition into formal literacy instruction. It aims to provide you with a snapshot of their current abilities so that you can use this information to plan instructional support.

This research involves interviewing you to obtain your perceptions on the usefulness of this tool and its appropriateness to your day-to-day classroom environment.

Assessment Components

The children's print concept knowledge is assessed using questions that check their familiarity with print, their understanding of how books are organised and their knowledge of concepts such as letters and words.

Their listening comprehension is assessed through the use of explicit and implicit questions. In order to make sense of the story, the child needs to generate information that isn't explicitly stated – their ability to make inferences allows you to gauge whether they are understanding and making meaning from what they hear.

A benefit of assessing and supporting these skills early on is that they can be developed and strengthened through targeted instruction and this will assist children with their later reading development.

Administration of Assessment Tool

- Engage the child and provide a natural, interactive shared reading experience;
- Observe and keep a record of the child's responses in the space provided;
- Write down any thoughts you had about the tool immediately after using it (keep these handy for the interview);
- Please converse with the child using the script provided at the specific points in the story;
- However, if the child makes a comment or initiates a discussion about the story, please follow the child's lead and engage in conversation. Once the conversation

has finished, return to using the script provided.

It is hoped that this new assessment tool provides an authentic, interactive way for you to gain information about children's early print concept knowledge and listening comprehension skills, and assists you in your instructional planning accordingly.

Thank you for taking part in this research. If you have any questions please feel free to contact me.

Yours Sincerely,

Lauren Davidson
Masters Student
Educational Psychology Program
Institute of Education
Lauren.Davidson.1@uni.massey.ac.nz

Instructions

Prior to administration: Please familiarise yourself with the book provided and the questions that correspond to each page. Have this instruction form with you as you engage the child in this assessment so you can record the child's responses. However, try and be discrete to make the interaction as authentic and natural as possible.

Instructions for administration: As you read through "Dino Duckling", present the following tasks in the order shown on this form. Please use the script provided; each question can be repeated one time. Use your finger to draw attention to the text by pointing to each individual word as you read.

Aside from the responses provided for particular items, no other feedback should be given to the child. However, you are encouraged to respond if he or she offers additional talk about the story. Reinforcement for on-task behavior is permitted as needed.

Before you start the shared reading interaction, tell the child "***We are going to read a book together and I need you to help me***".

Page	Item	Instruction	Child Responses
Front Cover	1. Print Concept Book Orientation	Pass the book to the child, holding it vertically by the outside edge, spine of the book facing towards the child <i>"Can you show me the front of the book?"</i>	Child shows you the front of the book Yes <input type="checkbox"/> No <input type="checkbox"/> No Attempt <input type="checkbox"/>
Front Cover	2. Print Concept Title of Book	<i>"Can you show me the title of the book?"</i>	Child shows you the name of the book Yes <input type="checkbox"/> No <input type="checkbox"/> No Attempt <input type="checkbox"/>
Front Cover	3. Prediction Inference making based on pictures	Encourage the child to have a look at the cover and the first three or four pages of the book. <i>"Hmmm what do you think this story might be about?"</i> <i>Response: "Let's start reading and find out!"</i> Read the title pointing to the text.	Record response verbatim:
Page 1	4. Print Concept Print not picture carries the message	Open the book to the first page, <i>"Hmmm can you show me where I begin to read?"</i> <i>Response: "I'm going to begin to read here"</i>	Child points to the start of the first sentence Yes <input type="checkbox"/> No <input type="checkbox"/> No Attempt <input type="checkbox"/>

Page 1	5. Print Concept Directionality (left to right)	<i>“Now which way do I read?”</i> <i>Response: “This is the way I’m going to read”</i>	Child indicates left to right movement on the first sentence Yes <input type="checkbox"/> No <input type="checkbox"/> No Attempt <input type="checkbox"/>
Page 6	6. Listening Comprehension Explicit information	Read page 6 then ask, <i>“How does Dino feel?”</i>	Record response verbatim:
Page 7/8	7. Print Concept Left page is read before the right page	Before you read page 7 ask, <i>“Do I read this page (point left) or this page (point right) first?”</i> <i>Response: “hmm I am going to read this page first” point to left page</i>	Child points to the left page first Yes <input type="checkbox"/> No <input type="checkbox"/> No Attempt <input type="checkbox"/>
Page 8	8. Listening Comprehension Explicit Information	Read page 8 <i>“What did Mama Duck teach her babies?”</i>	Record response verbatim:
Page 11	9. Print Concept Directionality (top to bottom)	Before you read page 11, <i>“There are three lines on this page (point to each). Which one do I read first?”</i> <i>Response: “I’m going to read this one first”</i>	Child points to the first line Yes <input type="checkbox"/> No <input type="checkbox"/> No Attempt <input type="checkbox"/>

		<p>Response: "I'm going to read this one first"</p> <p><i>Read the first line tracking with your finger – when you get to the end of the first line</i></p>	
	<p>10. Print Concept</p> <p>Return Sweep</p>	<p>"hmmm where do I go now?"</p> <p>Response: "I think I'll go here" <i>(return sweep)</i></p>	<p>Child points to the first word on the second line</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No Attempt <input type="checkbox"/></p>
Pages 13 and 14	<p>11. Print Concept</p> <p>Letter Concept</p>	<p>After you have read page 14,</p> <p>"Can you show me just one letter on this page?"</p>	<p>Child points to one letter</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No Attempt <input type="checkbox"/></p>
	<p>12. Print Concept</p> <p>Letter Concept</p>	<p>"Can you show me the first letter on this page?"</p>	<p>Child points to first letter</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No Attempt <input type="checkbox"/></p>
	<p>13. Print Concept</p> <p>Capital Letter Concept</p>	<p>"Can you show me a capital letter?"</p>	<p>Child points to a capital letter</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No Attempt <input type="checkbox"/></p>

Page 16	14. Listening Comprehension Implicit Information and Inference making	After you have read page 16, “Why did Dino run (point to picture), jump (point to picture) and flap (point to picture)?” “What do you think might happen next?” <i>Wait for child to respond and then ask:</i> “Why do you think that might happen next?”	Record responses verbatim:
Page 22	15. Listening Comprehension Implicit Information and inference making	After you have read page 22, “How do you think Dino feels?” <i>Wait for child to respond and then ask:</i> “Why do you think Dino feels like that?”	Record responses verbatim:
Page 25	16. Print Concept Word Concept	After you have read page 25, “Can you show me just one word on this page?”	Child points to one word Yes <input type="checkbox"/> No <input type="checkbox"/> No Attempt <input type="checkbox"/>
	17. Print Concept Word Concept	“Can you show me the first word on this page?”	Child points to first word Yes <input type="checkbox"/> No <input type="checkbox"/> No Attempt <input type="checkbox"/>

	18. Print Concept Word Concept	<p><i>“Can you show me the very last word on this page?”</i></p> <p><i>Finish reading the story</i></p>	Child points to last word Yes <input type="checkbox"/> No <input type="checkbox"/> No Attempt <input type="checkbox"/>
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Adapted from Concepts about Print (Clay, 2017) and the Preschool Word and Print Awareness Assessment (Justice & Ezell, 2001).

Appendix C: Information Letter for Principals



MASSEY UNIVERSITY
INSTITUTE OF EDUCATION
TE KURA O TE MATĀURANGA

Investigating the Social Validity of an Early Literacy Assessment Tool in New Zealand Classrooms

Invitation to Participate

Dear [Principal name],

My name is Lauren Davidson and I am completing the Master of Educational Psychology degree at Massey University, Albany. I am undertaking a research study entitled: Investigating the Social Validity of an Early Literacy Assessment Tool in New Zealand Classrooms. I will be supervised by two experienced speech-language therapists and researchers, Dr Elizabeth Doell and Dr Sally Clendon.

The purpose of this study is to develop a new tool that enables teachers to assess children's early literacy skills and knowledge during the early stages of formal schooling. I invite you to consider approval for teachers in your school to participate in this research, specifically New Entrant and Year 1 teachers.

Please find attached a copy of the Information Sheet for Teachers, which outlines details of the research. Each teacher will be asked to select two or three children with whom they will carry out a shared reading activity. I would like to ask for permission for this to be carried out during class-time so that the assessment is conducted in a natural setting. Time required should be no more than 15 minutes per child and we would like the assessments to be completed in Term 2, 2018. After the assessments are completed, the teachers will be requested to engage in a skype interview to collect feedback. This can be done at a time of the teachers choosing but before the end of Term 2.

We do not anticipate there being any risks to participation and no data from or about the children is required. The purpose of this research is to investigate whether the tool is an appropriate and effective resource for teachers and whether further research into its validity is warranted.

When the project is finished, the results of the study may be presented at conferences or published in journal articles, however, the information will not include the name of your school or the names of any of the teachers who

choose to participate. A summary of the research findings will be sent to you.

If you grant approval for your teachers to participate in the study I would like to request your assistance in distributing the attached Information Sheets to your New Entrant and Year 1 teachers.

Thank you for considering this request. Should you require further information or explanation about the project please contact my supervisor, Dr Elizabeth Doell at E.H.Doell@massey.ac.nz or myself at Lauren.Davidson.1@uni.massey.ac.nz

Yours sincerely,

Lauren Davidson
Masters Student
Educational Psychology Programme
Institute of Education, Massey University

Appendix D: Principal Approval Form



MASSEY UNIVERSITY
INSTITUTE OF EDUCATION
TE KURA O TE MATĀURANGA

**Investigating the Social Validity of an Early Literacy
Assessment Tool in New Zealand Classrooms**

Principal Consent Form

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

I agree/do not agree to the study being conducted at _____ (Name of school)

I agree/do not agree to distribute the teacher information sheets to teachers in the junior school

I agree/do not agree to the teachers participating during school time

I understand that there is no obligation for invited teachers to participate in this study

Signature: **Date:**

Full Name - printed

Appendix E: Teacher Information Sheet



MASSEY UNIVERSITY
INSTITUTE OF EDUCATION
TE KURA O TE MATĀURANGA

Investigating the Social Validity of an Early Literacy Assessment Tool in New Zealand Classrooms

Information Sheet for Teachers

Introduction

My name is Lauren Davidson and I am completing the Master of Educational Psychology degree at Massey University, Albany. I am undertaking a research study entitled: Investigating the Social Validity of an Early Literacy Assessment Tool in New Zealand Classrooms. Dr Elizabeth Doell and Dr Sally Clendon, who are both experienced speech language therapists and researchers, will supervise me throughout this study.

The purpose of this study is to develop and trial a new tool that enables teachers to assess children's early literacy skills and knowledge during the early stages of formal schooling. The tool you will be asked to trial aims to provide a snapshot of children's knowledge about print concepts and listening comprehension via an authentic shared reading activity. This snapshot should assist you to plan support for the child's literacy progression. The tool can be embedded into everyday teaching, as it will be conducted in the natural classroom setting.

Having gained approval from the Principal of your school, I would like to invite you to participate in this study.

Project Details

1. Trialling a new tool

You will be asked to identify two or three children who you perceive may benefit from additional support for literacy learning. You will be provided with an information pack that includes explicit instruction on how the tool should be used. Prior to using the tool, I will arrange a phone or skype meeting with you to address any questions you may have.

You will be asked to carry out the shared reading interaction with each child you have identified during Term 2. A specific book will be provided to you and it is anticipated that the shared reading interaction will take no more than 15 minutes per child.

2. Your feedback

The second part of the study will entail a skype interview to collect your feedback about the tool. This interview will be at a time of your choosing after you have completed the

assessments and it is anticipated that it should take approximately 30 minutes.

To be as accurate as possible the interview will be audio recorded. You will have the opportunity to review the interview transcript and request corrections or deletions of sensitive content if required. Audio recordings will be deleted as soon as the transcript is completed.

Your feedback will be confidential and collated with feedback from teachers at other schools. It will be analysed to determine whether the tool is an appropriate and effective resource for early literacy assessment and if further research into its validity is warranted.

Data Management

Information relating to the project will be stored securely in a locked office at Massey University, or on password-protected computers and will only be accessed by my supervisors and myself. It will be kept for 5 years following the completion of the final publication. When disposed of, the University confidential waste service will be used for any printed materials.

Participant's Rights

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

- decline to answer any particular question;
- withdraw from the study (prior to signing a release of transcript form);
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used;
- ask for the recorder to be turned off at any time during the interview;
- be given access to a summary of the project findings when it is concluded.

We do not anticipate there being any risks to participation and if you do participate a summary of the research findings will be sent to you when the project is finished.

Thank you for considering this request. We would be most willing to provide further information and explanation about the project should this be required. If you choose to participate in this study, please see the attached consent form that can be signed and returned to me via email. Please find contact details for my primary supervisor and myself below.

Yours sincerely,

Lauren Davidson
Masters Student
Educational Psychology Program
Institute of Education

Contact Details	Lauren Davidson Masters Student Lauren.Davidson.1@uni.massey.ac.nz	Dr. Elizabeth Doell Primary Supervisor E.H.Doell@massey.ac.nz
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This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact A/Prof Tracy Riley, Acting Director, Research Ethics, telephone 06 356 9099 x 84408, email humanethics@massey.ac.nz

Appendix F: Teacher Consent Form



MASSEY UNIVERSITY
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TE KURA O TE MATĀURANGA

Investigating the Social Validity of an Early Literacy Assessment Tool in New Zealand Classrooms

Teacher Consent Form

I have read the Information Sheet and have had the details of the study explained to me. I have had the opportunity to ask questions and these have been answered to my satisfaction and I understand I can ask further questions at any time.

I agree/do not agree to the interview being sound recorded

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

Signature:

Date:

.....

Full Name - printed

.....

Email address

.....

Please select one

New Entrant Teacher

Year 1 Teacher

Appendix G: Reflection Sheet

Reflection Notes Immediately after Administration

Note: Some ideas for what you might want to record are provided, however, your notes do not need to be limited to these.

Goals: How did the child engage and interact in the activity? Did you learn more about the child's print concept knowledge and listening comprehension skills?

Procedure: Was the tool easy to follow and use or did you face challenges? Is the administration time suitable and feasible during class time?

Outcomes: Could you plan instructional support from the information gained, i.e. is it useful? What are strengths or weaknesses of the assessment tool?

Appendix H: Interview Guide

Interview Guide

Teacher Demographics:

How many years of experience teaching do you have?

How many years of experience teaching New Entrant/Year 1 children do you have?

Have you participated in any professional development focused on early literacy?

Background Questions:

How did you decide which children to select for this assessment? (What were the characteristics of these children?)

How do you assess the literacy skills of the children in your classroom?

Are there any further assessments that you use with children who you perceive may need additional literacy support and instruction?

Social Validity Dimension: Goal

- Planning tool (question for this under outcomes)
- Information gained about PCK and LC – appropriate and relevant focus
- Interactive and Engaging

Questions:

1. Can you comment on the relevance of the literacy concepts targeted in this assessment to children in your classroom who you perceive may need additional support?

Probes:

- Would there be many or few children that come through your classroom who you would perceive need additional support in PCK and LC (and therefore could be children you assess with this tool)?

2. Can you describe how the children engaged in the assessment (i.e. what behaviors were evident)?

Probes:

- Can you provide some examples of how one of the children you assessed engaged with you during this assessment – what did they say and do?
- Did the children show general interest in the story? How so?
- Can you comment on the parts of the book that elicited spontaneous comments by the children?
- Can you comment on the appropriateness of the book for children from diverse cultures and linguistic backgrounds?

Social Validity Dimension: Procedure

- Authentic (natural classroom environment)
- Time considerations
- Ease of following the tool
- Feasibility of note taking without disrupting the engagement in the story

Questions:

- 1. Can you describe how you initiated the assessment with the children?**
- 2. Can you describe the setting in which you administered the assessment?**

Probes:

- Where did you administer the assessment?
- Can you describe what was happening around you and the child doing the assessment (i.e. if you were in your classroom what were the other children doing?)
- Can you tell me about any difficulties you encountered with the setting?
- Were you able to administer the assessment without interruption?
- Did you do it at the same time and place for each child or were there differences?
- Was there one way that worked better than others?

- 3. How did you find administering the assessment?**

Probes:

- Were the procedures clear?
- How easy was it to take notes at the same time as continuing the interaction?
- Can you tell me how the administration time compares to other assessments you use?
- Can you give me an example of any difficulties you had adhering to the procedures for administering this tool?

- 4. How does this assessment approach fit within your own classroom and teaching practice?**

Probes

- Can you describe the models and frameworks you align your teaching with (including cultural values)?
- How does this influence the assessment methods you choose?
- Can you tell me about your views on authentic assessment and standardised assessment?
- Which do you prefer and why?

Social Validity Dimension: Outcomes

Questions:

1. How have you used the information gained from this assessment tool to guide your planning for instructional support?

Probes:

- Ask for a specific example based on one of the children they assessed.
- If they have not used the information – could you hypothesize how you would apply the information gained to meet one of the children’s learning needs?

2. Would you use this assessment tool again? Why/Why not?

Probes:

- Can you describe the strengths and weaknesses of this tool?
- Can you tell me about your overall perception of the tool?
- How does this tool compare with other assessment tools you use (are there any unique characteristics about this tool)?

3. What changes / adaptations do you think would improve this tool?

Appendix I: Codebook

Code	Definition	Example
Importance of Print Concept Knowledge and Listening Comprehension	<i>Participants commented on the importance of the specific skills targeted by this assessment</i>	“They’re not getting the joy of reading from the story first because they’re not understanding what we’re reading about and some of them, I’m thinking of one particular boy, you know, he’ll just laugh because everybody else is laughing, so yeah that comprehension is really important”
Inclusion of LC	<i>Participants commented on the addition of LC components included in the EPCLC</i>	“there was nothing that I thought ‘oh you’ve missed that” and I really liked that addition of the comprehension stuff”.
Punctuation	<i>Participants commented on punctuation items being absent from the EPCLC</i>	“no question about punctuation, there’s no question about recognizing any words, like in the Marie Clay, it’s like backwards words like ‘on’ and ‘no’ and ‘was’ and ‘saw’, that’s missing”
Modifications	<i>Participants commented on changes they perceived would improve the tool</i>	“I would still want to know about some of those things that were missing; you know, because we didn’t have the words upside down, they weren’t locating words that were misspelt, they weren’t locating the line change”
Authentic versus Standardised Assessment	<i>Participants made reference to authentic or standardised assessment and alluded to their preference</i>	“This assessment gave me data that I can plan; I think I even wrote that down, [I can] implement a program tailored to individual needs. Where the standard one gives you a number of where

		they're at and doesn't tell you what they need, so this is one that I could use"
Assessment Style	<i>Participants commented on the style of the assessment</i>	"it really felt like a nice, a nice way – they didn't realise that I was assessing them in a way, if you know what I mean, which was great. That's exactly what I want".
Pedagogy	<i>Participants commented on how the assessment fits within their classroom and teaching practice</i>	"most of my testing is done in the classroom environment with whatever is going on around"
Story Content	<i>Participant's commented on the appropriateness or relevance of the content and storyline for the children they assessed</i>	"because it's dinosaurs and all my children for whatever reason, most 5 year olds love dinosaurs so that was good".
Cultural Relevance	<i>Participants commented on the appropriateness of the assessment book for children from diverse cultural or linguistic backgrounds</i>	"I can't actually answer that question, in that we've only got, yeah, New Zealand European children sorry"
Print Features	<i>Participants commented on the print features contained in the book</i>	"With the font and the text all over the place, it takes away from the concept about the print that we're testing them on. Whereas if you would use a junior reader, that's a really basic here is a picture, here is a text, this is what I want to know that you know"
Book Choice	<i>Participants commented on the use of a commercially available storybook and their perceptions of this compared to books</i>	"with it being a normal book, yea it was just really easy, like I could see that slotting in wherever you know, like it just looks like a normal

	<i>specifically designed for testing purposes</i>	thing that I'm doing in the classroom"
Signs of Engagement	<i>Participants discussed how engaged children were during the assessment and provided examples to support their perceptions</i>	"I noticed that he was not engaged with the story. He was actually just looking around and was not engaged"
Spontaneous Comments	<i>Participants commented on any spontaneous talk from the children, elicited by the assessment</i>	"When we went to page 8 on the comprehension and 'what did Mama Duck teach her babies?' his response was 'to eat fish, to go underwater to get fish...How do they breathe underwater?'"
Environment	<i>Participants commented on the environment in which they carried out the assessment</i>	"it was just so easy to do in the classroom environment"
Clear Instructions	<i>Participants commented on how clear the instructions provided were</i>	"it's so easy that a teacher aide could do it if I needed to, you know, like that's how easy the steps are to read".
Administration	<i>Participants commented on how easy or difficult the assessment was to administer</i>	"the second time I was probably better because of the added bits where you have the comprehension, but yes it was easy to administer".
Time	<i>Participants commented on the time it took to conduct the assessment and if they found this acceptable</i>	"I took longer the first time basically because it was new to me. I think really it's no different to the 5 year assessment, but it wasn't extra time".
Recording Responses	<i>Participants commented on the approach they took to recording child responses</i>	"the first couple I wrote, so there was a few pauses when I was trying to write, capture exactly what they were saying. So I actually sped it up a bit to make it even more normal for them and

		recorded, and then went back afterwards and wrote it down”
Fluency	<i>Participants mentioned factors that they perceived interrupted the flow of the assessment</i>	“because you’re asking questions as you go through the story, you lose the comprehension”.
Usefulness of data gained	<i>Participants commented on the usefulness of the information gained from this assessment</i>	“I really liked the addition of the comprehension stuff, like that was, that’s quite valuable you know, because you get quite a good picture of where they’re lacking, or where they need a bit of extra, you know, help. So that was good”
Using the Early Print Concept and Listening Comprehension Skills Assessment	<i>Participants commented on when they felt this assessment would be most appropriate to use or what children they would use this assessment with</i>	“I don’t think I’d do it as part of the basic assessment I do for SEA within their first couple of weeks but once they’ve take a few books home just to see whether they’re actually understanding what reading is all about, rather than just pointing to words”
Children’s Empathy	<i>Participants commented on comprehension questions that indirectly gave information on a child’s empathy</i>	“it also showed, interestingly enough, the empathy that came out in some of them and didn’t in other children which I found was quite interesting”
Children’s Performance	<i>Participants provided examples of how children they assessed performed on this assessment demonstrating the type of information that can be gained from this assessment</i>	“I got ‘because he was too big and my dad told me some adults do scribbles’, and it was like out of left field so yeah, just that focusing on what we’re actually doing and what the purpose is”

Teaching Considerations	<i>Participants commented on how information gained from this assessment informed them about their own teaching practices</i>	“I think I’ll do more of that because I’ve made the inference that they actually know what’s going on”
Instruction	<i>Participants commented on how they have used, or could use, the information gained from this assessment to plan their literacy instruction to support development of PCK and LC</i>	Talking about ‘oh which one’, ‘where am I going to start reading next’. I’ve just turned the page, ‘oh there’s a lot of words on here, where do I start?’ and you know, kind of targeting those children that I do know are having a problem with that
Overall Perceptions	<i>Participants indicated if they would use this assessment again and provided reasons as to why or why not</i>	“Yeah I would, I would definitely for the engagement that I got from it, and the ease of it”