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Assessing Four-year-old Children's Learning:  
New Zealand Early Childhood Teachers' Purposes, Practices  
and Knowledge

A thesis presented in partial fulfilment of the requirements  
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## **Abstract**

Assessment is a core element of quality teaching and learning experiences for all children enrolled in early childhood education settings. This study explored New Zealand early childhood teachers' purposes, practices and knowledge related to assessing four-year-old children's learning. Understanding teachers' beliefs related to the assessment of four-year olds is particularly important for supporting effective transition to school and continuity between early childhood and school contexts.

To investigate teachers' assessment purposes, practices and knowledge, a mixed methods sequential research design was developed. Phase one involved a nationwide survey of early childhood teachers, while phase two involved 14 key informant interviews with teachers representing nine different service types. Interview questions were derived from the survey results. Interviewees were asked to complete the survey and to share three pieces of assessment documentation. Descriptive statistics and thematic coding were utilised to analyse the data gathered. Findings from both phases were used to answer the study's research questions.

Findings demonstrated that teachers recognised the important role of assessment but their assessment knowledge, purposes and practices varied widely. Teachers favoured informal methods and focussed on sharing information with others as a primary purpose for assessment. Teachers' knowledge of assessment was predominantly developed through their experiences in the sector, thereby conserving established assessment practices. Learning stories were found to dominate teachers' assessment practices, which

focused on specific aspects of children's learning. Assessing four-year-old children's learning was considered to be important in relation to transition to school, though challenges associated with sharing assessment information were repeatedly identified.

The findings of this study, along with those of extant research, are of concern because New Zealand early childhood teachers' assessment purposes, practices and knowledge in relation to assessing four-year-olds appear to be constrained relative to international recommendations for quality assessment in early childhood. One implication is that teachers need additional support to develop their knowledge of assessment and understand its multiple purposes. The development of a repertoire of assessment tools would further assist the advancement of teachers' assessment practices. Early childhood and new entrant teachers need support to develop their understandings of each other's assessment methods, so that methods with appropriate fit for purpose can be used to promote children's successful transition to school. Continued research, professional development and initial teacher education need to play a key role in challenging current rhetoric and misunderstandings around assessment.

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*This thesis is dedicated to my grandmothers,  
Royce Chisnall and Frances Cameron,  
who showed me how children should be treasured.*



## Table of Contents

Abstract .....	i
Acknowledgements .....	iii
Table of Contents .....	vii
List of Figures .....	xi
List of Images.....	xii
List of Tables.....	xiii
List of Appendices .....	xv
Chapter One - INTRODUCTION.....	1
1.1 - Introduction .....	1
1.2 - My Personal Connection to the Study .....	6
1.3 - Research Aim and Questions .....	7
1.4 - Why Explore Teachers' Beliefs and Knowledge? .....	8
1.5 - The New Zealand Early Childhood Context .....	9
1.6 - Overview of the Thesis.....	14
Chapter Two - LITERATURE REVIEW.....	17
2.1 - Search Terms.....	17
2.2 - What is Assessment? .....	18
2.3 - Purposes of Assessment .....	19
2.4 - Links Between ECE Curriculum and Assessment Practices.....	24
2.4.1 - Competence and Performance Curriculum Models.....	24
2.4.2 - ECE Curriculum and Assessment Practices.....	25
2.4.3 - Summary.....	29
2.5 - New Zealand ECE Teachers' Historical Assessment Beliefs and Practices.....	30
2.5.1 - Assessment Practices Prior to and Around the Introduction of <i>Te Whāriki</i> .....	31
2.5.2 - The Introduction of <i>Te Whāriki</i> and the Development of Learning Stories.....	34
2.6 - Contemporary Assessment Beliefs, Knowledge and Practices.....	41
2.6.1 - Shifts in Teachers' Assessment Practices .....	42
2.6.2 - Children and Family's Involvement in Assessment .....	49
2.6.3 - ePortfolios and Assessment .....	51
2.6.4 - Teacher Beliefs and Practices about Subject Knowledge and the Assessment of Subject Knowledge .....	52
2.7 Assessment and Diverse Learners .....	56
2.7.1 - Assessment for Māori and Pasifika Children.....	57
2.7.2 - Assessment of Children with Additional Needs .....	60
2.8 - Sources of Assessment Knowledge and Beliefs .....	64
2.9 - Critique of ECE Teachers' Assessment Knowledge and Practices.....	70
2.10 - Continuity Between the ECE and School Sectors.....	75
2.10.1 - Contemporary Assessment Practices in Schools.....	77
2.10.2 - Current ECE Assessment Practices to Support Continuity as Children Transition to School .....	79

2.11 - Chapter Summary .....	89
Chapter Three - METHODOLOGY .....	91
3.1 - Introduction .....	91
3.2 - Research Design .....	91
3.2.1 - Epistemology .....	92
3.2.2 - Theoretical Perspectives.....	94
3.2.3 - Methodology .....	94
3.2.4 - Methods.....	96
3.2.4.1 - Phase one: Survey .....	97
3.2.4.2 - Phase two: Interviews .....	98
3.3 - Participants .....	99
3.4 - Data Collection .....	100
3.4.1 - Phase One .....	101
3.4.2 - Phase Two.....	104
3.5 - Legitimation .....	112
3.6 - Data Analysis .....	115
3.6.1 - Phase One .....	115
3.6.2 - Phase Two.....	117
3.6.3 - Data Mixing.....	120
3.7 – Limitations.....	120
3.8 - Ethical Considerations.....	122
3.9 - Summary .....	126
Chapter Four - FINDINGS.....	129
4.1 - Participants in Each Phase of the Study.....	130
4.1.1 - Demographic Information Relating to the Phase One and Two Participants.....	131
4.1.2 - The Participants’ Settings .....	134
4.2 - Assessment Practices .....	137
4.2.1 - Methods of Assessment .....	137
4.2.2 - Use of Informal Assessment Methods.....	139
4.2.3 - Use of Formal Assessment Methods .....	144
4.2.4 - Learning Stories .....	149
4.2.5 - Timeframes for Completing Assessment Documentation and Time Barriers.....	154
4.2.5.1 Strengths, interests and dispositions .....	160
4.2.5.2 - Development, learning outcomes, skills, knowledge and working theories.....	162
4.2.6 - Summary.....	164
4.3 - Beliefs about Assessment and its Purposes .....	165
4.3.1 - Contradicting Beliefs about Assessment Practices.....	165
4.3.1.1 - Photographs, video and audio .....	165
4.3.1.2 - Information shared by children and their families.....	166
4.3.1.3 - Knowing children well .....	168
4.3.1.4 - Mixed opinions regarding using formal assessment methods.....	169

4.3.1.5 - Beliefs about barriers related to particular assessment methods .....	170
4.3.2 - Beliefs about the Purposes of Assessment .....	172
4.3.2.1 - Sharing assessment information with children and families	172
4.3.2.2 - Planning for future learning .....	175
4.3.2.3 - Monitoring children’s progress.....	177
4.3.2.4 - Sharing assessment information with outside agencies.....	180
4.3.2.5 - Sharing assessment information with schools.....	182
4.3.2.6 - Assessment as a waste of time .....	189
4.3.3 - Summary.....	191
4.4 - Assessment and Primary School .....	191
4.5 - Knowledge of Assessment .....	194
4.5.1 - Knowledge of Assessment <i>of, as</i> and <i>for</i> Learning.....	194
4.5.2 - Sources of Assessment Knowledge .....	196
4.5.2.1 - Experiences in education and conversations with ECE colleagues.....	196
4.5.2.2 - Professional development .....	197
4.5.2.3 - Ministry of Education resources .....	202
4.5.2.4 - Initial ECE qualification.....	202
4.5.3 - Knowledge of Assessment as a Potential Barrier .....	204
4.5.4 - Summary.....	205
4.6 - Chapter Summary .....	205
Chapter Five - DISCUSSION.....	209
5.1 - Introduction .....	209
5.2 - Teachers Favour Using Informal Assessment Methods.....	210
5.3 – Teachers Have Variable Assessment Knowledge.....	219
5.4 - Teachers’ Assessment Knowledge is Primarily Developed through their Experiences in the Sector.....	228
5.5 - Some Rather Than All Aspects of Children’s Learning and Development are Being Assessed.....	238
5.6 - The Main Purpose of Assessment is to Share Information with Others .....	245
5.7 - The Sharing of Assessment Information with Schools is Problematic.	254
5.8 - Chapter Summary .....	264
Chapter Six - CONCLUSION.....	267
6.1 - Summary of Findings Relating to the Research Aim and Questions....	268
6.1.1 - Teachers’ Purposes for Assessing Four-year-old Children’s Learning.....	268
6.1.2 - Teachers Assessment Practices .....	269
6.1.3 - Teachers’ Knowledge about Assessment .....	270
6.1.4 - Special Consideration of Four-year Olds .....	271
6.2 Recommendations Arising from the Study .....	271
6.3 - Strengths and Limitations .....	280
6.4 - Suggestions for Future Research .....	284
6.5 - Concluding Thoughts .....	285

Reference List ..... 289  
Appendices ..... 310

## List of Figures

Figure 1.1 - Overview of parent-led service types in the New Zealand ECE Context .....	11
Figure 1.2- Overview of teacher-led service types in the New Zealand ECE Context .....	12
Figure 3.1 - Overview of the Research Phases .....	97
Figure 3.2 - An overview of the Varying Service Types within the Research Region .....	105
Figure 4.1 -Percentage of Survey Respondents Indicating Number of Learning Stories written in the last Four Weeks.....	150
Figure 4.2 - Phase One Reported Number of Hours of Assessment focused PD in the last 12 months as a Percentage .....	199

## List of Images

Image 4.1 -Assessment Example from STEI.....	148
Image 4.2 -Assessment Example from TONG.....	151
Image 4.3 -Assessment Example from MĀORI.....	152
Image 4.4 -Assessment Example from KGTN 2 .....	195

## List of Tables

Table 1.1 -Number of Enrolments by ECE Service Types .....	13
Table 2.1- Teachers' Self-Reported Use of Assessment Data Gathering Tools as a Percentage <sup>a</sup> .....	43
Table 3.1 - Number of ECE types as at 2015 (Education Counts, 2018a).....	100
Table 3.2 -Stratification of the Phase Two Key Informant Interviews .....	106
Table 3.3 -Overview of Methods Used to Address the Research Questions ..	111
Table 3.4 -Overview of the Interviewee Codes .....	118
Table 4.1 -Demographic Data Responses from Phase One and Two as a Percentage .....	131
Table 4.2 -Percentage of Response from the Service Types evident in the ECE Sector .....	134
Table 4.3 -Percentage of Respondents from Education and Care Settings by Service Type .....	135
Table 4.4 -Percentage of Respondents and Interviewees Using Formal and Informal Assessment Methods .....	138
Table 4.5 - Percentage of Phase One Survey Respondents and Phase Two Interviewees Reporting Frequencies of Use of Informal Assessment Methods .....	140
Table 4.6 -Percentage of Survey Respondents Reporting Frequencies of Use of Formal Assessment Methods .....	145
Table 4.7 -Overview of the Assessment Examples Shared by Phase Two Interviewees, including the number of Learning Stories and use of 'Notice, Recognise and Respond'.....	153
Table 4.8 -Percentages of Phase One Survey Respondents Referring to Strengths, Interests and Dispositions within Three Open-ended Questions .....	160
Table 4.9 -Percentage <sup>a</sup> of Phase One Survey Respondents Referring to Development, Learning Outcomes, Skills, Knowledge and Working Theories within Three Open-ended Questions .....	163
Table 4.10 - Percentage of Survey Respondents indicating Varying Frequencies of .....	174
Table 4.11 - Percentage of Survey Respondents Ranking where their .....	196

Table 4.12 - Percentage of Survey Respondents Indicating Relationships between their Initial ECE Qualification and their Knowledge of Assessment based on Year gained Qualification..... 203

Table 5.1- Comparison of Percentage of Respondents Indicating Use of Assessment Methods Across Three Studies..... 211

## List of Appendices

Appendix A Ethics Approval .....	310
Appendix B - Phase One Email invitation for Survey Participants in Teacher-led Services.....	311
Appendix C - Phase One Email invitation for Survey Participants in Parent-led Services.....	312
Appendix D - Phase One Letter of Invitation for Participants in Hospital-based Services.....	313
Appendix E- Phase One Advertisement for Education Gazette and Child Forum .....	314
Appendix F- Phase One Survey.....	315
Appendix G - Phase One Survey Question Response Rates .....	328
Appendix H - Phase Two Information Letter for Organisations .....	331
Appendix I - Phase Two Information Sheet for Individuals in Teacher-led Services .....	333
Appendix J - Phase Two Information Sheet for Individuals in Parent-led Services .....	335
Appendix K -Phase Two Participant Consent Form - Individual .....	337
Appendix L - Phase Two Participant Consent Form - Organisation.....	338
Appendix M -Phase Two Transcriber’s Confidentiality Agreement .....	339
Appendix N -Phase Two Broad Interview Questions Shared with Interviewees .....	340
Appendix O - Phase Two Probing Interview Question for Interviewer .....	341
Appendix P -Authority for the Release of Transcripts.....	344



# CHAPTER ONE - INTRODUCTION

## 1.1 - Introduction

The relationships between teaching, learning and assessment are complex and intertwined, as “Assessment, whether formal or informal, is not something apart from teaching and learning” (Absolum, Flockton, Hattie, Hipkins & Reid, 2009, p. 10). In fact, assessment is a core component of the teaching and learning process, particularly when the information garnered through the assessment process is used to guide teachers’ and children’s next learning steps. Assessment therefore plays a core role in the provision of quality teaching and learning experiences (Ministry of Education [MoE], 2011), from early childhood through to the compulsory schooling sectors and beyond. Given the significant and important role that assessment plays in the process of teaching and learning, it is essential that teachers have a thorough and deep understanding of assessment and that teachers are assessment capable (Absolum et al., 2009; Booth, Hill & Dixon, 2014; MoE, 2011). The term assessment capability, is a New Zealand coined phrase closely related to assessment literacy whereby professionals have the skills and knowledge required to assess learning (Booth et al., 2014). Assessment capability relates to teachers having the ability to comprehend their role in the assessment process, as well as the ability to share assessment information with others and to use assessment information to plan for future learning (Gunn & Gilmore, 2014).

The topic of assessment was selected because effective teaching is, in part, underpinned by knowledge about those being taught (Parr & Timperley, 2008). Questions have been raised, however, regarding early childhood education (ECE) teachers’ assessment capabilities (ERO, 2007; 2013; Stuart, Aitken, Gould

and Meade, 2008), including how assessment information is used to support children's transition to school (ERO, 2011). The research presented in this thesis therefore examines ECE teachers' purposes, practices and knowledge in relation to assessing four-year-old children's learning.

Assessment is a complex and multifaceted aspect of the teaching and learning nexus, with a multitude of definitions of assessment existing across the broader education context, and within the early childhood sector itself. For example, in relation to assessment in the primary school sector, Brown (2004) defined assessment as "any act of interpreting information about student performance, collected through any multitude of means or practices" (p. 304). Assessment in the ECE sector has been defined by Drummond (2012, p. 12) as the "ways in which, in our everyday practice, we observe children's learning, strive to understand it, and then put our understanding to good use"; and by Snow and Van Hemel (2008, p. 27) as "gathering information in order to make informed instructional decisions". Black and Wiliam (1998, p. 140) describe assessment as being all the "activities undertaken by teachers ..... that provide information to be used as feedback to modify teaching and learning activities". Similarly, Stobart (2008) defines assessment as being "the deliberate gathering of evidence in order to make specific judgements about individuals or groups" (p. 5).

Commonalities are evident across these definitions, and with other definitions. First, definitions acknowledge the need for information, or data, to be collected using a variety of means. Second, the information which has been collected needs to be analysed in some way so that it provides evidence of what the

person being assessed knows or can do, and thirdly can be used to make decisions about how to support further learning.

This thesis focuses on assessment in the New Zealand ECE sector, which does not typically follow a set or prescribed assessment format. Rather this crucial element of teacher practice is intended to be carried out in a way that is responsive to individual children and the learning community. *Te Whāriki* (MoE, 1996; 2017a) is the mandated ECE curriculum for all licensed ECE settings. While *Te Whāriki* was revised in 2017, the findings reported in this study were collected prior to this, when teachers' practices were guided by the original version of the document. Unless otherwise stated, the original 1996 version of the document that is being referred to.

The curriculum guides teachers' practices and is based on the premise that each setting will weave a curriculum that is reflective of and responsive to the children and community it services, whilst upholding the core elements of *Te Whāriki*. The aspiration statement underpinning *Te Whāriki* makes clear the intention for "children to grow up as competent and confident learners and communicators, healthy in mind, body and spirit, secure in their sense of belonging and in the knowledge that they make a valued contribution to society (MoE, 1996, p. 60). As the delivery of *Te Whāriki* is a regulatory requirement (MoE, 2015a), all practices within ECE settings should align with its aspiration statement, including the assessment of all children—including four-year-olds.

Most children in New Zealand start school around their fifth birthday (Peters, 2010). As children transition from early childhood settings to school they

encounter a range of potential discontinuities, which can impact on their learning (Dockett & Perry, 2007; Peters, 2010). Despite repeated calls for greater continuity between the sectors, no New Zealand based research has yet focused specifically on exploring how four-year-old children are being assessed, even though assessment has been identified as a potential discontinuity between the ECE and primary school sectors (Martlew, Stephen & Ellis, 2011; Wright, 2010).

*Te Whāriki* states that a key “purpose of assessment is to give useful information about children’s learning and development to the adults providing the programme” (MoE, 1996, p. 29). Observing children, both formally and informally, has been customary assessment practice in ECE settings, both internationally and in New Zealand, since the 1950s (Podmore & Luff, 2012). Observation is also the only assessment method specifically named in *Te Whāriki*. Prior to the advent of *Te Whāriki* a combination of undertaking observations and using developmental checklists to assess children’s learning in relation to developmental domains such as language, cognition, fine and gross motor development, was common (McLachlan, 2013). However, the strong influence of sociocultural theory evident within *Te Whāriki* meant that different approaches to assessment were required (Carr, 1998a). The need for an approach to assessment, which aligned with *Te Whāriki*, was recognised by the MoE, and resulted in a small-scale research project led by Margaret Carr. As a result of this project, Learning Stories were developed as an assessment method which aligned with *Te Whāriki* and its underpinning sociocultural theories of learning (Carr, 1998a, 2001; Carr, May & Podmore, 1998). Further specific

information relating to the history and development of learning stories is discussed in Chapter Two.

Learning stories allow for and promote the inclusion of multiple perspectives, where the context and environment is prioritised alongside the relationships between children, places and things in the environment (Carr, 1998a; 2001). Learning stories were quickly adopted by teachers in the sector, following their introduction in 1998 (Mitchell & Brooking, 2007) and a significant amount of professional development (PD) (Perkins, 2013). Mitchell (2008a) found that 94% of teachers were using learning stories by 2007 and their widespread use has continued. Learning stories are usually included within a portfolio, which documents an individual child's learning, development, play and engagement within the ECE programme. Along with learning stories, portfolios may also include photographs, observations made by teachers, and examples of children's work. Such documentation provides a collection of information about children through their engagement in the programme (Saracho, 2015), and can be used to document and assess their learning and development. More recently, however, the usefulness and robustness of learning stories as the dominant assessment method has been questioned (Blaiklock, 2008; McLachlan, Edwards, Margrain & McLean, 2013; Zhang, 2015) along with the limited research base underpinning their use.

Despite assessment playing such a central role in teaching, limited research has been undertaken to explore this topic in the New Zealand early childhood context. As explained further in Chapter Two, while ECE teachers' assessment purposes, practices and knowledge have been explored within some studies,

assessment has not been the singular focus of any of these studies. Furthermore, some of the existing assessment focused research suggests that there are concerns about the quality of assessment practices currently being used in the ECE sector (ERO, 2007, 2013, 2015a; Stuart et al., 2008). Given the important role of assessment in the provision of high quality teaching and learning in the ECE sector and the limited research to date, the current study is timely and necessary.

## **1.2 - My Personal Connection to the Study**

My own personal experiences of assessment in the ECE sector have provided motivation to undertake this study. Having been involved in the ECE sector for more than 20 years, as a student, teacher, professional development facilitator, and initial teacher educator, I have seen, heard and experienced first-hand the opportunities, challenges, and uncertainties that surround assessment practices in the sector. I began my teaching qualifications in 1996, meaning that my entry to the sector aligned with the publication of the first New Zealand early childhood curriculum document, *Te Whāriki*. The introduction of *Te Whāriki* heralded many changes for those teaching in the sector, including in relation to their assessment practices. The need to implement assessment practices that aligned with the theoretical and philosophical perspectives underpinning *Te Whāriki* required the development of new knowledge and shifts in practice (Carr, 2001).

These changes have significantly influenced my own teaching practices. While many of these changes have been positive for supporting children's learning, there have also been challenges for teachers. My experiences, working mainly

with three and four-year-old children in the sector, sparked an interest in the assessment process. This interest has continued to grow, particularly as I moved into professional development and initial teacher education (ITE), where I connected with a wider range of teachers from across the sector. From talking with teachers, and seeing evidence of their practices first hand, I have become aware that assessment is an aspect of teaching practice which many teachers find challenging. Through discussion with colleagues and mentors, I realised that other experienced and knowledgeable practitioners also had apprehensions about the state of assessment practices in the sector. As my own knowledge of assessment grew, so too did my questions. It is my own interest in the topic and the paucity of research about New Zealand ECE assessment, which has led directly to this research study.

### **1.3 - Research Aim and Questions**

The aim of the study was to explore New Zealand early childhood teachers' purposes, practices and knowledge in relation to assessing four-year-old children's learning. To achieve this aim, the following research questions were developed:

1. What do New Zealand early childhood teachers believe are the purposes of assessing four-year-old children's learning?
2. How do New Zealand early childhood teachers assess four-year-old children's learning?
3. What knowledge underpins New Zealand early childhood teachers' assessment of four-year-old children's learning?

The focus on teachers' purposes, practices and knowledge underpinning this study was devised to support the examination of these three critical and inter-related elements. Evidence of teachers' actual assessment practices of four-year-old children was gathered. Examining teachers' beliefs was valuable because existing research suggests that teachers' beliefs are a powerful influence on their actual practices (Pajares, 1992; Foote, Smith & Ellis, 2004).

#### **1.4 - Why Explore Teachers' Beliefs and Knowledge?**

Beliefs are a powerful influence on teachers' actual practices (Barkatsas & Malone, 2005; Sherley, 2011). Beliefs, however, are not easily defined, and as noted by Pajares (1992), are often associated with or used interchangeably with other terms such as opinions, views, attitudes, perceptions and judgments. Pajares, in his seminal article on teachers' beliefs, notes that further confusion is caused by the difficulties in differentiating between knowledge and beliefs. He does, however, go on to suggest that "belief is based on evaluation and judgement; knowledge is based on objective fact" (Pajares, 1992, p. 313). The notion of 'objective fact' does not however sit well within the constructivist and interpretivist approaches underpinning this study, providing further evidence of the difficulties inherent in differentiating between beliefs and knowledge.

The separation of teachers' knowledge and beliefs is challenging, but teacher knowledge is important as what teachers know can influence what they do in practice, as how people behave and what they do is a result of their beliefs (Beswick, 2005; Pajares, 1992). The exploration of teachers' knowledge was included because of its impact on both practices and beliefs (Reynolds, 2007), including in relation to assessment. The focus on beliefs was included because,

as noted by Charlesworth, Hart, Burts and Hernandez (1990), teachers have beliefs about what is important and what is not, and these beliefs impact on how teachers enact planning, pedagogy and assessment. For example, the aspects of children's learning which teachers believe to be important are likely to influence what teachers focus on during the assessment process, and teachers' beliefs may also influence how assessment information is used. Changes to teachers assessment practices need to take into account teachers beliefs because "It is unreasonable to attempt to change the practices of teachers without changing their beliefs" (Beswick, 2005, p. 64).

### **1.5 - The New Zealand Early Childhood Context**

The New Zealand ECE sector is diverse in nature, constructed of a range of different services types that seek to meet the needs of children aged birth to six years. While children are not legally required to attend primary school until they turn six, the majority of children start school on, or around, their fifth birthday (Peters, 2010). This section will outline the range of service types available, as well as provide an overview of the regulatory requirements that guide ECE provision in this country. Recent data on the number of children attending ECE, along with information relating to the qualifications of those working in the sector is also provided. The description of the ECE sector that follows provides an overview of the sector in 2015/2016, at the time data was collected for this study.

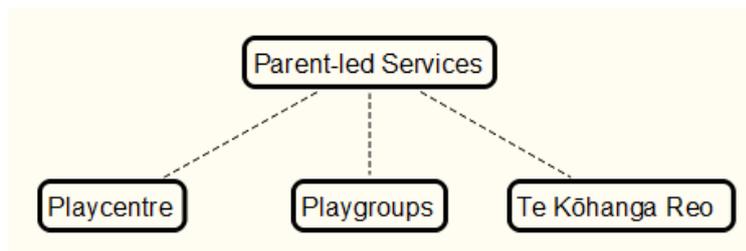
Since organised ECE provision began in the 1880s in New Zealand, a range of differing service types have arisen to meet the varying and changing needs of children and their families. The Ministry of Education is the government

organisation that oversees the provision of early childhood education in New Zealand, alongside the compulsory education sector. Key responsibilities of the Ministry include the regulatory requirements that settings must meet in order to be eligible for licensing requirements and access to funding. The MoE is also responsible for determining the gazetted curriculum, which in the case of the ECE sector is *Te Whāriki* (MoE, 2015a). The ECE sector can be broken down into teacher-led and parent-led services. Parent-led services, which meet MoE (2015a) requirements, are eligible for funding, but the requirements differ from those required in teacher-led services. Teacher-led services are those that are led by teachers holding recognised teaching qualifications and teacher certification (MoE, 2015a). As shown in Figure 1.1, parent-led services include three different service types, with playgroups being further split into those that meet MoE licensing criteria (MoE, 2016), and those that are supported by the MoE. In 2015 there were 754 general playgroups, with a further 103 playgroups operating which catered specifically for the needs of Māori and Pasifika children (Education Counts, 2018a).

Playcentre is a parent run co-operative, established in 1941 to support mothers raising their children during World War II and to provide social development opportunities for children (Manning & Loveridge, 2009; Stover, 2003). Playcentre, as an organisation, has established its own qualifications, which are recognised by the MoE and which support parents to act as educators within the setting (Manning & Loveridge, 2009). As at 2015, 427 licensed Playcentres were operating nationwide, along with 30 license exempt Playcentres (Education Counts, 2018a) who were receiving differentiated support from the MoE due to

not meeting all of the licensing criteria. The total number of children attending Playgroups is not publically available.

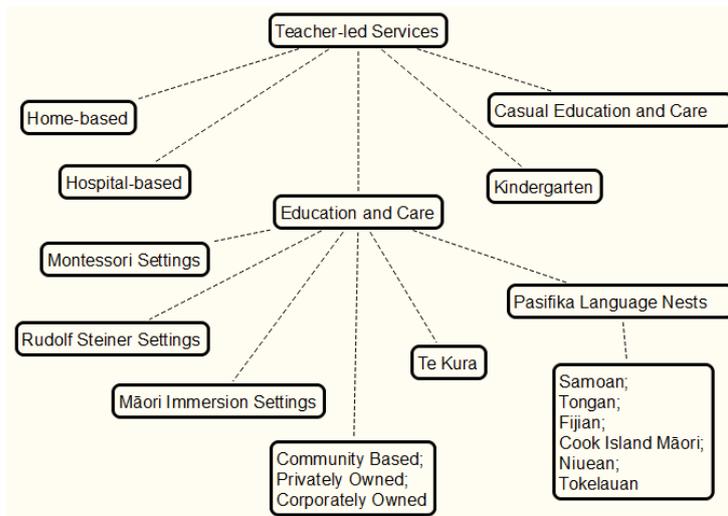
**Figure 1.1 - Overview of parent-led service types in the New Zealand ECE Context**



Te Kōhanga Reo is also viewed as being a parent-led service, though it was established as part of a community led initiative by Māori to revitalise their native language, te reo Māori (Te Kōhanga Reo National Trust, 2018). Under the auspices of the Te Kōhanga Reo National Trust, teaching qualifications have been developed to support those teaching in the sector and to help meet MoE requirements for funding purposes (MoE, 2009a). In 2015 there was 450 Te Kōhanga Reo operating (Education Counts, 2018a) around New Zealand.

An overview of the service types that are included within teacher-led services can be seen in Figure 1.2. These service types will now be briefly introduced, based on the proportion of the sector which they represented in 2015, moving from smallest to largest.

**Figure 1.2 - Overview of teacher-led service types in the New Zealand ECE Context**



The Early Childhood Service of Te Aho o Te Kura Pounamu, referred to here as Te Kura and formerly known as the Correspondence School, is the only one of its kind in the country and is a distance educator provider for early childhood, primary and secondary school aged children. A total of nine Casual Education and Care services were operating (Education Counts, 2018a), and are settings that operate without a regular roll, such as at a ski field or within a gym. Twenty hospital-based ECE services were in operation, providing on site ECE for children who are also receiving health services. Home-based ECE services are those where a small group of up to five children are cared for and educated within their own home, the home of the person providing the service, or in another home. Four hundred and seventeen home-based services were in operation in 2015. Each of these services is made up of a number of individual people working from homes (Education Counts, 2016). Those people working in homes with children are overseen by ECE qualified and registered teachers.

A total of 652 kindergartens were operating in 2015 (Education Counts, 2018a). Kindergartens are community based, not-for-profit, ECE settings which are run by an overarching Association and who employ 100% qualified and registered

teachers. The final service type, Education and Care, is by comparison much more diverse. As shown in Figure 1.2, the range of service types within this category ranges from philosophical services such as Montessori and Rudolf Steiner, to cultural services such as the variety of Pasifika Language Nests and Māori Immersion settings, to community based and privately owned services. Education and Care services make up the largest proportion of the sector, totaling 2,430 services. Of these, 1613 are privately owned, for-profit settings, while 817 are community based and not-for-profit settings (Education Counts, 2015).

As shown in Table 1.1, Education and Care services are not only the largest service type, but also have the largest number of children attending. In 2015 a total of 198,887 children were attending education and care services in New Zealand (Education Counts, 2016). These totals are broken down into community based and privately owned services and displayed in Table 1.1.

**Table 1.1 -Number of Enrolments by ECE Service Types**

Service Type	Number of Enrolments in 2015	Number of Four-year-olds Enrolled in 2015
Education and Care	125,446	37,239
Kindergarten	30,996	16,610
Home-based <sup>a</sup>	20,505	3,076
Playcentre	12,584	1,983
Te Kōhanga Reo	8,860	2,211
Correspondence School	496	235
<b>Total</b>	<b>198,887<sup>b</sup></b>	<b>61,354</b>

Note: <sup>a</sup> Home-based services did not meet inclusion relating to qualification levels and were therefore not included in the study

<sup>b</sup> Children may be enrolled in more than one service type at a time

As stated previously, due to the changing nature of their enrolments, the number of children attending Playgroups is not publically available, and neither are data relating to Casual Education and Care settings and Hospital-based settings.

All licensed ECE settings, which includes both parent-led and teacher-led services, are bound by the Education (Early Childhood Services) Regulations (MoE, 2008, 2013a), along with the Licensing Criteria (MoE, 2016) relevant to their service type. The regulations and licensing criteria outline the minimum requirements for settings including, but not limited to, adult:child ratios, group size, teachers' qualification requirements, along with obligations relating to health and safety standards, and the implementation of curriculum. All ECE services are mandated to implement practices that align with *Te Whāriki*. As at 2010, 95% of all children arriving at primary school had engaged in ECE in some way (MoE, 2010). The MoE has actively worked to increase participation rates further, particularly for Māori and Pasifika children who participate at lower rates in comparison with other ethnic groups. A target of 98% of ECE aged children attending ECE services prior to starting school by 2016 had been set (MoE, 2013b).

The New Zealand ECE sector is diverse (Loveridge & McLachlan, 2014), incorporating a range of different service types, each with their own history and philosophy, as well as different regulatory, funding and qualification requirements. This diversity means that the sector is complex, and provides further impetus to explore assessment across the range of different service types in the present study.

## **1.6 - Overview of the Thesis**

The thesis is structured around six chapters. This chapter introduces the subject of assessment, and specifically assessment within the ECE context. A personal rationale for the study is included, along with the research aim and questions.

Finally, a brief overview of the New Zealand early childhood context is provided. Chapter Two provides a critical review of the literature relating to assessment, and to ECE assessment in particular. Gaps in the research literature, and the concerns identified within the existing research literature, provide further rationale for the current study. Chapter Three presents an outline of the methodology used. The underlying epistemological and theoretical beliefs are explored, with the study's mixed methods design and the rationale for this design also being described.

Chapter Four presents the findings from the two phases of the research — a nationwide survey and key informant interviews. The chapter is structured around the three research questions, with findings from both phases being integrated; phase two findings are used to help explain and add further detail to the phase one findings. Chapter Five provides a discussion of the findings outlined in the previous chapter, again structured around the study's research questions. Chapter Six presents the conclusion, and includes the contribution that this study makes to the field of assessment relating to four-year-old children, along with recommendations for the sector and for future research.



## CHAPTER TWO - LITERATURE REVIEW

The chapter begins with an overview of the search strategy used to identify relevant literature, before examining what the term assessment means. Assessment in the New Zealand education context, including ECE, is outlined, along with an exploration of international ECE curriculum and assessment practices. The links between curriculum and assessment are also explored, before an examination of the antecedents of New Zealand ECE teachers' assessment beliefs and practices. Finally, contemporary assessment purposes, practices and knowledge are critiqued, along with research on assessment and the relationship with continuity between the ECE and school sectors.

### 2.1 - Search Terms

A range of databases were used to search for literature relating to assessment in the ECE sector. These included ERIC online, Scopus, Discover, A+ Education, Google Scholar, the New Zealand Educational Theses Database and CAUL, the Australian Theses Database, along with MoE and Education Review Office (ERO) publications. The Massey University library catalogue was also searched for books relating to the topic. Search terms included: early childhood; early childhood education; early education; assessment; curriculum; planning; evaluation; teachers and teaching; along with derivatives of these words. The search also involved using a variety of combinations of these terms in order to conduct a thorough search of the literature, with a specific focus on research carried out since the introduction of *Te Whāriki*. Two New Zealand ECE assessment focused studies carried out by Bell (1990) and Wilks (1993), in the period prior to the *Te Whāriki's* introduction were deliberately included due to

their relevance to the topic and ability to provide insight to assessment practices at that time.

## **2.2 - What is Assessment?**

Assessing children's learning is a complex endeavour, yet it is a critical and key element of effective teacher practice (ERO, 2007; Farquhar, 2003). The assessment of children's learning is a central feature of effective teacher practice, providing critical information to teachers regarding learning and progress to date. Brown (2004) succinctly defines assessment as follows: "Assessment is any act of interpreting information about student performance, collected through any multitude of means or practices" (p. 304). *Te Whāriki*, in comparison, defines assessment as "the process of obtaining, and interpreting, information that describes a child's achievements and competence" (MoE, 1996, p. 99). When developing assessment processes to align with *Te Whāriki*, Carr (1998a) adopted Drummond's (1995, p. 13) definition of assessment which stated that "effective assessment is a process in which our understanding of children's learning, acquired through observation and reflection, can be used to evaluate and enrich the curriculum we offer". A further definition of assessment is offered by Hutchin (1996) who asserts that "The purpose of the assessment process is to make explicit children's achievements, celebrate their achievements with them, then to help them move forward to the next goal" (p. 7). It is these definitions, and the recurring threads of gathering information, interpreting information and using that information to inform teaching, which have informed and underpinned the discussion of assessment throughout this study.

Assessment is a core component of the teaching and learning process (Brown, Irving & Keegan, 2014; MoE, 2011) and commonly involves using both summative and formative assessment practices. While the terms summative and formative assessment are widely known within the education sector it is important to note that considerable critique of these terms exists (Bennett, 2011; Rawlins & Leech, 2014; Ussher & Earl, 2010), along with confusion about the meaning of these terms (Ussher & Earl, 2010). Such critique is largely due to a shortening of the original terms from 'assessment for summative purposes' and 'assessment for formative purposes' which has somewhat changed the people's perceptions of the original meanings (Ussher & Earl, 2010). The longer terms more accurately convey the idea that the assessment method used gathers the information, but that it is how and when teachers use the information that makes the assessment formative, summative or both (Rawlins & Leach, 2014).

### **2.3 - Purposes of Assessment**

As noted by Absolum et al. (2009, p. 10) "The reality is that any assessment information gathered for the purpose of informing learning (formative assessment) could also be used to make a judgement about learning to date (summative assessment), and vice versa". While the ability to use assessment information for formative or for summative purposes is possible, whether this is realised or appropriate comes down to how the assessment information is utilised by the teacher and/or children (Ussher & Earl, 2010). For example, while learning stories were designed as a formative assessment method (Carr, 1998a; 2001), they can also be a summative account of what a child can do at a

particular point in time. Because “assessment is a product as well as (future-oriented) process” (Lund, 2008, p. 36) it has the ability to fit multiple purposes.

Assessment becomes ‘formative’, that is assessment which is used to inform teaching practice, when the evidence gathered is used to modify teaching practice in order to meet the needs of the children (Cowie, 2009). As noted in the New Zealand Curriculum for schools “The primary purpose of assessment is to improve students’ learning and teachers’ teaching as both student and teacher respond to the information that it provides” (MoE, 2007, p. 39). Black and Wiliam’s (1998) seminal study, which involved a large scale literature review of more than 600 publications and included in-depth analysis of 23 studies, is a key source on the use of formative assessment practices. The authors found that formative assessment strategies have the potential to impact positively on children’s achievement, and particularly for low-achieving children and those with learning disabilities. The evidence of the benefits of a formative approach to assessment is compelling (Absolum et al., 2009) and as a result has been championed by the New Zealand MoE (2011).

Alongside of formative and summative purposes of assessment, assessment may also be ipsative, whereby children’s learning is measured against themselves and what they were previously able to do or knew (Dubiel, 2016). This approach to assessment is particularly important for children with special needs (Bagnato, 2007). Assessment of children’s learning may also occur in relation to norm referenced or standardised assessments, where children’s learning is measured against established ‘norms’, or through criterion referenced assessment whereby children’s learning is measured in relation to

specific foci or skills (Dubiel, 2016; Snow and Van Hemel, 2008). Assessment is sometimes undertaken for accountability reasons (Snow & Van Hemel, 2008), although The Gordon Commission Report (2013) noted that accountability should not dominate assessment practices and that assessment should fulfil multiple purposes.

Additional terminology used by the MoE, namely assessment *of* learning, assessment *for* learning, and assessment *as* learning, adds further complexity. In the past assessment processes tended to focus upon assessment *of* learning which judged what children were able to do at a particular point in time (Bennett, 2011), which links closely with summative assessment. More formal assessment methods such as tests and exams, or as it is referred to by the MoE (2011) 'narrow, end point testing', also tend to be associated with this assessment framework.

Assessment *for* learning, which is associated with assessment for formative purposes, involves "the use of assessment feedback to enhance teaching and learning" (Absolum, et al., 2009, p. 5). Assessment *for* learning emphasises using the information gathered during assessment to support and plan for future learning (Carr, 2009; Dunphy, 2010; McLachlan, Edwards et al., 2013). A focus on assessment *for* learning, that is using assessment information to inform what teachers and children do next, is clearly identified in the New Zealand MoE's (2011) position paper on assessment. While this document is primarily targeted at the compulsory school sector, it refers to the ECE sector and highlights its use of formative approaches to assessment. Assessment *for* learning is also specifically highlighted within the title of *Kei Tua o te Pae – Assessment for*

*Learning: Early Childhood Exemplars* (MoE, 2004/2007/2009). As noted within the resource's introductory booklet "The early childhood exemplar books use the term "assessment for learning". Many writers call this formative assessment" (MoE, 2004a, p. 6). Such a focus, and numerous additional references to assessment *for* learning throughout the resource, suggests the MoE is promoting a strong emphasis on this purpose for assessment.

Two viewpoints of assessment *as* learning exist. A positive view of assessment *as* learning positions assessment as an integral part of learning, supporting children's engagement in self-assessment and self-monitoring (Earl, 2003), with the intention of informing goals for future learning (Department of Education and Early Childhood Development, 2013). An alternative view of assessment *as* learning sees this approach as having a focus on compliance with criteria rather than supporting the development of understanding (Torrance, 2007). This negative view of assessment *as* learning positions assessment as superseding learning (Rawlins & Leech, 2014).

Each of the assessment purposes discussed to date have particular strengths and challenges associated with them and are appropriate in certain situations, but not for all. The challenge for teachers therefore is to make informed decisions about which type and purpose of assessment to engage with in order to gather the assessment information which is most appropriate, and in alignment with the principles of good assessment. Bagnato (2007, p. 4-6) suggests that eight critical qualities underpin quality assessment; namely that assessment must be useful, acceptable to families and professionals, authentic, involves collaboration, there is convergence whereby tools give reliable and

valid information, is equitable, sensitive to even small changes, and tools are designed for and therefore congruent with those being assessed. Teachers therefore need to have a sound knowledge of assessment to help ensure that they are engaging in good assessment practices. Such knowledge needs to include being aware of, and knowing how to use, a range of methods for gathering assessment information, as well as being competent in analysing the information gathered and then purposefully using that information, either ipsatively, summatively or formatively.

For New Zealand ECE teachers, the primary emphasis of assessment has been assessment for formative purposes. For example, the MoE funded the 'Project for Assessing Children's Experiences' (PACE) (Carr, 1998a), which resulted in the development of learning stories as a formative assessment method. The subsequent publication of *Kei Tua o te Pae* (MoE, 2004/2007/2009), the resource designed to help teachers develop their understandings of learning stories and formative assessment, provides further evidence of the MoE's support. Further encouragement for using assessment information to inform planning and teachers' responses comes from the MoE (2011), which points out that teaching is more effective when assessment information is used to inform the teaching process.

While MoE promote self-assessment and peer-assessment (2011), this focus has primarily been at the school level, rather than ECE level. However, children contributing to their own assessment and setting goals for their own learning is specifically promoted within Book Four of *KTotP* (MoE, 2004b), as well as in other places throughout the document. Such emphasis is suggestive of a

positive view of assessment *as learning* being promoted within the ECE context, although this terminology is not specifically used within the assessment exemplars resource. This section has examined assessment in the wider New Zealand education context. In the next section the links between curriculum and assessment are explored.

## **2.4 - Links Between ECE Curriculum and Assessment Practices**

Curriculum and assessment are inter-reliant concepts (Puckett & Black, 2008), with each influencing the other. *Te Whāriki* (1996, p. 28) itself states that assessment should contribute to the development of the curriculum provided for children. Research internationally has shown that teacher knowledge of the curriculum and how to implement that curriculum and assess its learning outcomes is vital (Alvestad, Duncan & Berge, 2009; Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2004). However, because curriculum models vary, the assessment methods used to support the curriculum also vary. This section provides an overview of two curriculum models, competence and performance, before exploring international and New Zealand curriculum models and assessment practices.

### **2.4.1 - Competence and Performance Curriculum Models**

A useful framework for this comparison is to identify whether a country's curriculum is based on either a competence model or a performance model of curriculum (Bernstein, 2000) and the resulting influence on assessment. A competence-focused curriculum is one where children have some influence on the "selection, pacing and sequencing of the curriculum" (McLachlan, Fler & Edwards, 2013, p. 12). Competence models of curriculum are primarily focused

on children's holistic development (Taguma, Litjens, & Makowiecki, 2013) and hold a view of the child as being competent. Within such a model, the curriculum provided for children is more open-ended, flexible and child-led. Competence models are seen as supporting children to develop "holistically and harmoniously to become the competent, autonomous, resilient and well-rounded human being" (Papatheodorou, 2010, p. 3). Competence models have been prevalent in the ECE sector, though this is not the case for all countries (McLachlan, Flear, et al., 2013).

In contrast a performance based model of curriculum is more tightly structured, and outcomes focused, whereby individual subjects (such as mathematics) are taught using more formalised teaching practices and where learning is assessed against explicit criteria (McLachlan, Flear et al., 2013). Performance models of curriculum, also referred to as outcomes based or academic models, tend to be more teacher directed, and are more closely aligned with developmental theories of learning, with a focus on supporting children's cognitive development in preparation for school (Taguma et al., 2013). Much critique and criticism has been directed at performance models of curriculum due to the underpinning notion of universal norms, and the lack of attention given to the impact of the social, cultural and political context on children's learning (Papatheodorou, 2010).

#### **2.4.2 - ECE Curriculum and Assessment Practices**

The adoption of a performance or a competence based model of curriculum, and the different approaches inherent within each of these models, leads in turn to the utilisation of varying methods of assessment. For example, the curricula

used in England and some part of the United States can be considered to be performance based models. In 2008 the Early Years Foundation Stage framework (EYFS) (Department for Children, Schools and Families, 2008) was introduced in England, with subsequent revisions placing increased focus on literacy and numeracy (Roberts-Holmes, 2015). Children were assessed against a 117-point scale at the age of five, where children are still under the EYFS, to identify where children may require further support (McLachlan & Arrow, 2015), though this has now been revised to 17 early learning goals (Department for Education, 2017). The EYFS requires teachers to compile an 'EYFS Profile' for each child at the end of their first year in school based on the assessment information gathered to date, with results reported to the government (Bradbury, 2013). Photographs, work samples, written notes and lengthier observations are used to construct an individual child's EYFS Profile (Bradbury, 2014). However, as noted by Nah (2014), the required focus on performance indicators is at odds with the play-based and developmentally appropriate practices utilised by most educators, creating tensions between curriculum and assessment and teacher practices.

The United States does not have a national early childhood curriculum, but rather each state sets its own ECE curriculum, structures and funding while being guided by the federal government. As a result of the 'Good Start, Grow Smart' initiative, all 50 states created academic criteria for ECE provision (Bracken & Crawford, 2010), and by 2015 all states had established early learning standards or guidelines (The National Institute for Early Education Research, 2016). These standards are akin to a performance based curriculum, in which "Criterion-referenced or curriculum-based measures are used to plan instructional

activities and monitor what children are learning” (Snow & Van Hemel, 2008, p. 33). US teachers often concentrate on providing a programme that will support children’s’ achievement in mandated assessments, which results in a narrowing of the curriculum offered to children (Halpern, 2013).

The influence of a competence based model of curriculum can be seen in countries such as Australia, the Nordic Countries and in Reggio Emilia in Italy. Within these types of curricula, assessment is used to inform planning and teaching (Department of Education, Employment and Workplace Relations [DEEWR], 2009), with an emphasis on assessment *for* learning. For example in Australia an emphasis on assessment for learning is promoted within ECE policy and curricula (Kirkby, Keary & Walsh, 2018) with educators being required to document and plan for children’s learning, though the amount of documentation required is not regulated. Also of note, the Australia ECE curriculum draws on and acknowledges *Te Whāriki’s* definition of curriculum, demonstrating the similar influences underpinning ECE practices in the two countries.

The city of Reggio Emilia in Italy is well-known worldwide for its distinctive approach to ECE provision, which focuses upon pedagogy. The underpinning philosophy supports children having influence over the direction of their learning, with the curriculum based around children’s interests and their learning through projects. The documenting of children’s learning as it happens is emphasised as a way of making children’s learning visible (Wien, Guyevskey & Berdoussis, 2011). This documentations is viewed as being a key role of the

teacher, with assessment considered “an integral part of the learning and teaching process” (Rinaldi, 2004, p. 1).

ECE provision within the Nordic countries of Denmark, Finland, Sweden and Norway is strongly aligned with competence models of curriculum, as each of these countries has an ‘open’ rather than prescriptive ECE. In direct contrast with Australia and Reggio Emilia, assessment of children is not typically considered to be a part of ECE provision in Nordic ECE as it is culturally contradictory (Alasuutari, Markström & Vallberg-Roth, 2014). The focus of the curriculum influences the ways assessment is carried out and the countries discussed in this section were chosen because of their recognisable and ongoing influence on ECE provision in New Zealand. Assessment practices in New Zealand ECE settings are guided by the early childhood curriculum document *Te Whāriki*, and its aspiration for children to grow as competent and confident beings (Arndt & Tesar, 2015). *Te Whāriki* is a competence curriculum, using Bernstein’s (2000) definition, and has been described as being one of ‘open possibilities’ where planning happens as a consequence of observing children and their interests (Dalli, 2011). It is therefore important to briefly explore how *Te Whāriki* is implemented in practice, before specifically exploring ECE teachers’ contemporary assessment practices in section 2.6.

*Te Whāriki* has been described by Dalli (2011) as deeming “the teacher’s pedagogic role as creative and agentic, rather than reactive and prescribed by narrow curriculum goals” (p. 235). As a result, the next steps for the child’s learning are not predetermined by the curriculum, but rather are guided by the child’s perceived learning and development level as identified within the

assessment process. Alvestad and Duncan (2006) noted that *Te Whāriki* is considered a significant and important document that underpins teachers' daily teaching practice at a philosophical level. The nine New Zealand based teachers involved in Alvestad and Duncan's (2006) study did however raise some issues and concerns with *Te Whāriki*, including a perceived lack of guidance and direction regarding methods for implementing the curriculum.

The same comparative study was also used to explore how teachers bridge the gap between the curriculum and what they do in practice (Alvestad, Duncan & Berge, 2009). Findings suggest that teachers are aware of the need to identify and support children's interests and to focus on individual children. Alvestad et al.'s findings highlight the complex nature of *Te Whāriki* and demonstrate the need for teachers to be skilled and adept at weaving a responsive curriculum for children in conjunction with colleagues, children and their families. Because *Te Whāriki* is not a prescriptive curriculum, implementation requires skilled teachers, something which the authors of *Te Whāriki* noted could be a challenge for the sector (Carr & May, 1993).

#### **2.4.3 - Summary**

The curriculum underpinning ECE provision, either performance based or competence based models, influences not just curriculum provision itself, but also the approach taken to assessment. While countries implementing performance based models of curriculum are likely to use assessment methods such as checklists and tests, those with competence based models of curriculum are more likely to use assessment methods which document children's learning in the moment and to use the information gathered to inform planning. *Te*

*Whāriki* is a competence based curriculum model, and the assessment methods used by teachers should align with this focus. Contemporary New Zealand ECE teachers' assessment practices will be specifically examined in Section 2.6, following a historical overview of prior assessment beliefs and practices.

## **2.5 - New Zealand ECE Teachers' Historical Assessment Beliefs and Practices**

Prior to delving into current assessment practices, it is necessary to provide an overview of New Zealand ECE teachers' beliefs and assessment practices prior to the introduction of *Te Whāriki* in 1996. The shift in practices from before and after 1996 illuminates the connecting nature of curriculum and assessment. Teachers' assessment beliefs and practices in the years prior to *Te Whāriki* are therefore explored, followed by an analysis of the changes that the introduction of *Te Whāriki* heralded in respect to assessment. Being aware of previous assessment practices allows for a comparison with contemporary approaches to assessment, and helps to show the shifts in thinking and practices which may have occurred over time.

It is important to note that the studies discussed throughout the remainder of this chapter have revealed many positive findings relating to teachers' assessment purposes, practices and knowledge. The discussion will primarily focus on the challenges that the research has identified, due to their implications and potential ongoing impact on contemporary practice. While the challenges, for the most part, have not been the dominant feature of the findings of each of these studies, when compiled they suggest ECE teachers face a multiplicity of issues when assessing children's learning. Retaining this focus

highlights the breadth and depth of the assessment challenges identified by the research.

### **2.5.1 - Assessment Practices Prior to and Around the Introduction of *Te Whāriki***

Following education sector reforms in the 1980s, the use of ‘formal’ assessment in the ECE sector was promoted through the introduction of a range of policy and regulatory developments, including ‘*Education to Be More*’ (Meade, 1988), ‘*Before Five*’ (Department of Education, 1988) and the ‘*Statement of Desirable Objectives and Practices (DoPs)*’ (Education Gazette, 1990). As noted by Davis (2006) these documents, and others which followed, “signal pivotal moments in the construction of an assessment landscape for the sector and undoubtedly impacted on how practitioners understand and practise assessment in their setting” (p. 5). These three documents marked a clear increase in accountability for ECE teachers, with a focus on providing a developmentally appropriate programme that aligned with universal, developmental norms (Davis, 2006). Notably, the introduction of the *DoPs* increased teachers’ responsibility in regards to planning and evaluation, though assessment was only mandated for children with special education needs (New Zealand Education Gazette, 1990). It is in this context that teachers’ beliefs and assessment practices, prior to the introduction of *Te Whāriki*, are examined.

Bell (1990) studied how early childhood teachers put their understandings of educational theory into practice by observing six teachers for 80 hours as they went about their daily practice, focusing on their interactions with eight four-year-old target children in two education and care settings. Teacher interviews were undertaken to explore the beliefs that informed their practices and

responses to children. Only two of the teachers made specific reference to children's intellectual or cognitive development, perhaps indicating that they did not believe it was their role to support children's learning in these areas. Bell reported that for the most part what teachers said they did was consistent with what was observed. Several teachers were not able to explain why they worked as they did, and in some instances it appeared that their "practice was relatively untheorised" (Bell, 1990, p. 60).

While many of the teachers in Bell's (1990) study were comfortable with supporting and assessing children's social development, some were uncomfortable with assessing children's learning. A lack of formal records relating to children's learning was noted in at least one setting, where methods for assessing learning were not specified and "no individual interventions were planned should a child be considered to have learning deficits" (Bell, 1990, p. 55). One participant emphasised that they would only assess a child if, based on their observation of their communication skills, if there was a need or a 'problem'. Another participant however appeared to see the teachers' role as being to assess children's in order to help them further their learning.

Wilks (1993) used a postal questionnaire to examine the assessment methods and procedures used to assess children, with 79 kindergartens and 66 education and care settings participating in the study. The majority of responses came from settings catering for children aged three to five years. Structured, mostly group interviews were also carried out in 12 kindergartens and 12 education and care settings. The interviews focussed on teachers' assessment practices, their

use of the information gathered and the support needed for carrying out assessment. The practices of half of the interviewees were then observed.

Wilk's participants noted that the main purpose of assessment was for accountability, followed by programme planning, catering for individual needs and meeting children's special needs. Observations were the most commonly acknowledged procedure for assessing children's learning, followed by checklists, staff discussions and discussions with parents, with a very small number using tests. Less than half of the settings had written assessments for all children. When exploring the reasons for a lack of written assessment, some responses indicated this only occurred if "there was a need or concern, or they only assess the regular and full-time children" (Wilks, 1993, p. 52). Some indicated that they did not have time or staff to assess all children, whilst others acknowledged that their assessment systems were in the beginning stages of implementation or under review.

When looking at the aspects of children's learning being assessed, almost all noted assessing children's physical development, while 90% or more noted assessing children's social development, language development, cognitive development and emotional development. From the interviews, physical development was found to be considered to be the easiest area of development to observe and assess, and emotional development the most difficult.

Though less than half of the responses indicated assessment information was used to plan for children's individual needs, this was the most common use. Sharing information with parents was the next most common use, but this was

less than a quarter of the responses. Many of the uses related to ‘filling the gaps’ when concerns had been identified. A very small number made reference to using assessment information to communicate with schools. During the interviews it became clear that participants did not want assessment information to be shared with schools. Wilks (1993) found that three quarters of the settings involved parents in the assessment process, but this was often in a limited way. Only a small number of settings included children in the process of assessment.

Taken together Bell (1990) and Wilk’s (1993) research suggests that assessment prior to 1996 focused on assessing children against developmental norms and supporting children’s learning needs, with parents being included in the assessment process in only limited ways. It was against the backdrop of the practices and beliefs described by Bell and Wilks that *Te Whāriki* was introduced in 1996. As noted by Carr (2001), the existing assessment methods and processes, did not necessarily align with the theoretical and philosophical premises that underpinned *Te Whāriki*.

### **2.5.2 - The Introduction of *Te Whāriki* and the Development of Learning Stories**

As discussed in chapter one, the introduction of *Te Whāriki* heralded changes for teachers not only in relation to curriculum and teaching, but also in regards to assessment. *Te Whāriki* noted the need for teachers assess children’s learning and for the assessment information gathered to contribute to the development of the programme, as well as evaluation of and revision of the programme. *Te Whāriki* also highlighted the need for assessment to “focus on individual children over a period of time and avoid making

comparisons between children” (MoE, 1996, p. 29). The ECE curriculum also acknowledged the need to avoid making generalisations based on one-off pieces of information, whilst ensuring that children’s needs and not the assessment process, determined the curriculum provided for children. *Te Whāriki* also noted the need for assessment to consider children’s holistic development through “intelligent observation of children by experienced and knowledgeable adults” (MoE, 1996, p. 29) in relation to the goals and strands of the curriculum.

In 1995 Margaret Carr and colleagues began a MoE funded project to “identify key outcomes from *Te Whāriki* and to work with practitioners to develop a range of assessment ideas and procedures” (Carr, 1998a, p. viii), which aligned with *Te Whāriki*. The ‘Project for Assessing Children’s Experiences in Early Childhood’, or PACE, began by identifying key ideas about assessment, which included an emphasis on formative assessment and assessing children’s dispositions for learning. Carr (2001) described dispositions as being “situated learning strategies plus motivation” (p. 9) enacted by the child.

It was decided in this project that narratives would be a suitable way to document children’s dispositions and learning, with the term ‘Learning Story’ being coined. Children’s progress would be evident as these stories became longer, wider and more complex over time (Carr, 1998a). The information that follows in this section outlines the strategic investment in research by Carr and colleagues to develop an assessment tool which aligned with *Te Whāriki*. This includes the evolution of Carr’s writing about learning stories as the primary developer of this approach, and is followed by additional guidance provided for connecting assessment in Kaupapa Māori settings.

Five diverse ECE settings then trialled the learning story framework. The framework aligned with and prioritised five key learning dispositions, with these dispositions aligning with the strands of *Te Whāriki*. According to Carr, May, and Podmore (1998) teachers were to document children's learning by writing learning stories that exemplified their developing dispositions. Photographs and examples of children's work were to be included in the learning stories, with the learning stories also providing "guidelines for the adults' planning, and provided families with not only stories about the children's day but a view of the learning that was being valued and encouraged" (Carr et al., 1998, p. 15). The inclusion of children's and their family's perspectives within the assessment documentation emerged as a key element of the learning story framework (Carr, 2001; Carr & Lee, 2012). The ability to document children's learning and plans for future learning in a way that was accessible to families, and to have families contribute to the planning, were included amongst Carr's (1998b) reasons for documenting assessment as learning stories.

Learning stories were to be based on teachers' observations of children, not checklists. Carr (1998a) noted that the learning story framework required that observations were written in a narrative style, that they were interpreted and that adults would often be included as a participant in what happened. Given that children were to be one of the audiences of the learning story, emphasis was placed on using photographs and including samples of children's work.

Observation, as defined in Chapter One, is a general term used in relation to assessment in the ECE sector that refers to systematic watching (Podmore, 2006). Observations may be conducted in informal ways, documenting what

was said or seen after an event, or through more formal ways such as using an event recording or a time sample. Observation was the only assessment method specifically noted on page 29 of the original version of *Te Whāriki*, and although it does not clarify whether this means formal or informal observation, it is likely that both were intended through the use of this term. While written observations were also identified as an assessment method in the original literature pertaining to learning stories (Carr, 1998a; Carr, May, & Podmore, 1998), anecdotal evidence suggests that most teachers currently place little emphasis on using more formal methods of observation.

Justification for the lack of emphasis placed on using formal observations can perhaps be traced back to Carr's (1998a) description of the observations that were carried out in the pilot study that underpinned the development of learning stories. In this source, observations are described as being open-ended and focused, while specifically indicating that running records, a type of formal observation, did not meet the "special characteristics of the observations demanded by the Learning Story framework" (Carr, 1998a, p. 33). The specific exclusion of running records as an appropriate tool to use for learning stories perhaps may have signalled to teachers that formal observation methods, which until that point had been the main method of assessment (Wilks, 1993), were now considered inappropriate.

To support teachers in their adoption of learning stories, Carr (1998a) produced a professional development (PD) resource based on the findings of the PACE project. This resource included three videos outlining key messages and prompting teachers to engage in reflection and discussion about assessment

practices in ECE. The videos included information relating to what to assess, why assess and how to assess as well as introducing the learning story framework and the notion of dispositions. Drummond's (1995) definition of assessment as being "the ways in which, in our everyday practice, we observe children's learning, strive to understand it, and then put our understanding to good use" (p. 13) is foregrounded within the resource. Assessment is described in the resource as occurring during everyday practice, based on observation, focused on children's learning, including an interpretation of the learning and being purposeful.

Curiously, over time Carr has made fewer references to observation in the publications focused on learning stories. For example, in her first book focused on learning stories, Carr (2001) notes that teachers had observed children and that this information had been used to inform the subsequent writing of learning stories. In this book, however, Carr (2001) does not indicate what kinds of observations were carried out. In more recent publications on learning stories (Carr, 2014; Carr & Lee, 2012), the role and use of observation is not specifically discussed. The lack of reference to the role of observation and the types of observation which should be carried out, may be due to a taken for granted assumption that those familiar with learning stories know this already. It may however be evidence of a decreasing focus on observation as method for collecting assessment information, though no clear alternative is provided.

As noted by Carr, May, Podmore, Cubey, Hatherly, and Macartney (2002), teachers enthusiastically adopted the learning story framework. Carr et al. (2002) also acknowledged that teachers were continually assessing children's

learning and informally responding, highlighting the idea that not all assessment information is documented in a learning story. A four-part process for assessing children's learning was developed by Carr (2001) and colleagues whereby teachers 'Described' the learning dispositions they had observed, 'Documented' what they had observed in a variety of ways for a range of audiences, 'Discussed' the learning with the child, other teachers and family, and 'Decided' on a planned response to support future learning. The role of families, and including families within the assessment process was specifically noted within the 'Discuss' phase of the framework, with families viewed as playing an integral role in the assessment process itself.

Carr (2001) acknowledged that learning stories are time-consuming, requiring not just the gathering and documenting of assessment information but also consultation with others, an analysis of the information gathered and the development of a plan for ongoing learning. While Carr (2001) acknowledged that children's skills and knowledge may be the focus of learning stories at times, the main focus was upon documenting the child's learning dispositions.

In 2004 the MoE began publishing *Kei Tua o te Pae*, a set of assessment exemplars, to "consider and inform assessment practice in early childhood education" (MoE, 2004a, p. 2), with additional materials added in 2007 and 2009 (MoE, 2004/2007/2009). A total of 20 booklets made up the resource, with each booklet focusing on a specific element of assessment practice, such as bicultural assessment, inclusive assessment, and the individual strands of *Te Whāriki*. All ECE settings received hard copies of the resource, and the MoE funded externally facilitated PD "to support the implementation of *Kei Tua o te Pae*"

(Stuart et al., 2008, p. 15) from 2004 until 2009. The MoE invested heavily in the promotion of the exemplars, with \$2.5 million budgeted annually for the resource for the five years from 2004.

The resource's introductory book (MoE, 2004a) outlined the need for teachers to carefully observe children, but no guidance is given as to what types of observations should be used, or the frequency these should be carried out. The term 'observe' is partnered with the process of 'Notice' in the resource, with this term being given greater emphasis within the document. Carr herself, however, makes limited use of the term 'Notice' in her own writings about learning stories. As remarked by Perkins (2013), the lack of information regarding how to gather information about children's learning in the context of learning stories is in stark contrast to the weight usually placed on observation within the wider ECE assessment literature.

To complement *Kei Tua o te Pae*, the MoE also supported the development of *Te Whatu Pōkeka* (MoE, 2009b), the Kaupapa Māori learning and assessment exemplars. *Te Whatu Pōkeka* was developed to support teachers' engagement in assessment practices that align with kaupapa Māori approaches to assessment. Within a kaupapa Māori approach children are empowered, their cultural capital is validated, and Māori children's success is normalised (Walker, 2008). While *Te Whatu Pōkeka* "draws on ideas and concepts from Māori traditions, it also guides future goals of education for Māori children" (Walker, 2008, p. 8). As such *Te Whatu Pōkeka*, like the learning story framework, supports the notion of assessment information being used formatively. Both *Kei*

*Tua o te Pae* and *Te Whatu Pokeka* are available online via the Ministry of Education website.

A hard copy of this resource was initially only sent to Te Kōhanga Reo and Māori immersion settings, with the associated MoE funded PD also only available to these setting types. Since 2009 the MoE has not published any other assessment focused resources for ECE teachers and the funding of nationwide PD contracts has ceased (Dalli, 2010). It is against this backdrop that the research reviewed in the rest of this chapter was undertaken. The next section reviews contemporary beliefs, knowledge and practices relating to assessment.

## **2.6 - Contemporary Assessment Beliefs, Knowledge and Practices**

This section begins with an analysis of how teachers' beliefs and knowledge impact upon their assessment practices, reviewing why it is important to consider these as a way to understand what teachers do in their day-to-day practice. Because the existing studies consistently explore at least two of these elements - for example practices and beliefs or practices and understandings – the review has been arranged according to the main research focus for each study. Firstly, research focused on shifts in ECE teachers' assessment practices is reviewed. These shifts include the use of ICT in assessment, how children and their families have been involved in the assessment process, as well as teachers' beliefs about subject knowledge and how to assess it. This section will also explore how current assessment processes are meeting the needs of the diverse range of contexts within New Zealand's ECE sector, as well as the diverse range of learners. The sources of ECE teachers' assessment knowledge and beliefs are reviewed, along with an examination of research relating to their assessment

knowledge and practices. Finally, existing research relating to continuity between the ECE and school sectors will be explored.

### **2.6.1 - Shifts in Teachers' Assessment Practices**

Following the introduction of *Te Whāriki* and learning stories, changes began to occur to teachers' assessment practices. One such change was the move towards documenting children's learning in a portfolio containing learning stories, photographs and work samples for an individual child. In a predominantly ethnographic study carried out in one setting, Te One (2001) sought to explore how teachers were experiencing the shift to using portfolios as a form of assessment by accessing a range of written documentation and engaging with teachers. The findings suggested that while many teachers' claimed that the portfolios were an assessment method, limited consideration had been made as to the purpose of the portfolios and the time commitment that their preparation took. More recently, the significant amount of time it takes to write learning stories and to assemble individual portfolios has been identified as a concern (Blaiklock, 2010; Loggenberg, 2011).

In late 2003 and early 2004, Mitchell and Brooking (2007) sought to explore shifts in ECE teachers' practices following the introduction of *Te Whāriki* via a nationwide survey. This study, and a subsequent follow-up in 2007 (Mitchell, 2008a), included specific focus on teachers' assessment practices. Mitchell and Brooking used a stratified random sample, with 531 services invited to participate. This survey achieved an overall response rate of 60%. Table 2.1 presents a summary of Mitchell and Brooking's study relating to the tools teachers reported using to gather assessment data.

**Table 2.1- Teachers' Self-Reported Use of Assessment Data Gathering Tools as a Percentage<sup>a</sup>**

Photographs/digital photographs	90
Conversations with children	90
Examples of children's work	89
Discussion among teachers/education	87
Consultation with parents	86
Learning stories	70
Anecdotal records	75
Event recording/scatter plotting	41
Time sampling	40
Own tests/checklists	22
Video recordings	13
Audio recordings	4
Published tests	4

Note: N = 402

<sup>a</sup>Adapted from Mitchell and Brooking (2007)

Related to the purposes of assessment, using the data gathered to provide feedback to parents was reported by 92% of respondents, while 87% used it to monitor children's progress and develop individual plans, and 85% for evaluative purposes. Sixty-two percent of participants believed that barriers to assessment existed, with a lack of time being the main barrier identified (57%) (Mitchell & Brooking, 2007). It is however important to acknowledge that the findings reported here relate to about 9% of services at the time. This is a relatively small percentage of the entire population and it is possible that the views of the respondents are in some way different from those who did not respond or did not have the option to participate.

A second survey was sent to 601 early childhood services in 2007, again using a random stratified sample, with 53% of these services returning at least one response (Mitchell, 2008a). Significant findings included that 94% of teachers reported using learning stories to document children's learning. At the same time results showed that the number of teachers who used formal and informal observation tools such as anecdotal records, time samples and checklists had decreased from the earlier survey (Mitchell & Brooking, 2007). Fewer teachers

reported using assessment data to develop individual learning plans for children, though Mitchell (2008a) acknowledges that it could be the meaning of the word 'plans' that affected the results as teachers may have associated this terminology with an "old frame of thinking" (p. 13) that was more teacher-directed. In line with the findings of Wilks (1993), Davis (2006), the earlier study by Mitchell and Brooking (2007), and commentary provided by Blaiklock (2008), time to document assessment was the most common barrier identified in relation to assessment; 59% of participants pinpointing this as an area of concern. Again actual response numbers in relation to the entire population were relatively small and this must be taken into account when considering the generalisability of these findings to the wider population.

It must be noted that the remainder of the studies discussed are small scale, with many being individual or multiple case studies. To avoid repetition, the limitations of small-scale studies are highlighted here, rather than in relation to the particular studies themselves. As noted by Punch (2009), findings based on individual case studies cannot be generalised. Even when multiple case sites are used within a study, as is the case in some of the studies outlined, the findings are not generalisable to the wider population. However, as noted by Fraenkel, Wallen and Hyun (2012), a great deal can be learned from studying one site, and "the case study can make an important contribution in combination with other research approaches" (Punch, 2009, p. 123). While the findings of a single, small-scale study alone cannot be generalised, when multiple small-scale studies generate similar findings, the validity of the individual studies is enhanced and helps to create a picture what is likely to be happening across the

broader sector. For this reason, the small scale studies are included in the review, as collectively they provide insights into current practice in the sector.

Davis (2006) utilised case study methodology with nine teachers to explore how teachers in one ECE setting made sense of assessment practices and changing assessment expectations following the introduction of learning story related PD. Individual and group interviews, along with document analysis, observation and video analysis were used to collect data. Davis found that much of the teachers' assessment practices took place 'in the moment' as they engaged with children, and it was not necessarily documented. This more informal approach to assessment was seen as being more responsive and more intuitive by the teachers. While the setting had a formalised planning process, significant barriers and constraints were identified with this process, including time for assessment and planning documentation, teachers' understandings of the process and outsider expectations. More informal methods were adopted that did not necessarily align with the formalised planning cycle process that the setting had in place.

To identify the assessment methods used by ECE teachers and what was being taught about assessment in pre-service teacher education programmes, Loggenberg (2011) used two quantitative questionnaires to gather data from in-service teachers and ITE providers. Return rates from these questionnaires was very low however, with just 25 teachers and three ITE programmes responding. However, the conclusions drawn from the study are useful in that they help build a picture of assessment across the ECE sector, which when combined with other studies can provide a more robust illustration of teacher practice. Loggenberg

(2011) found, confirming Mitchell's (2008a) findings, that learning stories were the most commonly identified assessment method, with 80% of teachers indicating their use of learning stories as a primary assessment method, followed by observations at 65%. A number of the teachers identified that learning stories are time consuming and that teachers needed to be taught a broader range of assessment strategies. Concerns were identified by participants in the survey in relation to the adequacy, use and effectiveness of learning stories. Such concerns are similar to the critique offered by Blaiklock (2008; 2010) and Zhang (2015) in relation to the heavy reliance on learning stories as the dominant, and often only, assessment strategy. Loggenberg (2011, p. 67) concluded that "Learning stories can be a successful method of assessment if correctly carried out, but learning stories should not be the only method of assessment used". Loggenberg's findings are consistent with other commentary and research on the topic from Blaiklock and Zhang.

Turnock (2009) undertook a small-scale ethnographic case study where she was employed, as the teaching team sought to understand and use learning stories and dispositions to assess children's learning by documenting the changes made by the team as they engaged in PD. A qualitative approach, involving document analysis and interviews, was adopted so that an understanding of the ways teachers came to understand a phenomenon could be developed. The team's story of change over time featured specifically in the thesis, and is useful because it was carried out by someone 'within' the group rather than an outsider looking in. This research strategy has the potential to enhance the validity of what is being recorded as the researcher has in-depth understandings of the group itself and what it is experiencing (Punch, 2009). However, there is

also the potential for researcher bias, as it is very difficult to check the validity of the researcher's findings (Fraenkel et al., 2012).

Turnock's (2009) findings suggest that the ways teachers identified the purposes of assessment in turn influenced the focus of the assessment itself and that significant focus remained on children's development, aligning more with developmental theories of learning than would be expected. As teachers sought to move from developmental to sociocultural models of teaching, assessment and planning there was clear "evidence of new ideas becoming stuck in old frameworks" (Turnock, 2009, p. 86). Similar to the findings of Davis (2006), Turnock also noted that changes in teacher practice are ongoing and take time, and that teachers need to develop a shared vision and understanding in order to successfully implement change.

Similarly, Niles (2016) sought to investigate teachers' assessment practices and understandings. The research involved nine teachers and three management level staff working with children aged over two. Observations of teachers' assessment practices in the setting, the researcher's field notes, the collection of assessment related documents, audio recordings of staff meetings, and carrying out interviews with the six teachers who the researcher usually observed were undertaken. Niles (2016) found that teachers did not believe that there was enough time to document children's learning, in alignment with the findings of Davis (2006), Turnock (2009), and Loggenberg (2011). As a result the writing of learning stories was often hurried and quality was lacking. In alignment with Blaiklock (2008; 2013), Niles noted that without a "definitive format for how learning stories should be written and what should be included

teachers in this setting continue to negotiate what a ‘quality’ documented assessment may look like” (Niles, 2016, p. 76). Such findings align with those of Perkins (2013) who noted that teachers did not have a sound understanding of the features of a quality learning story.

Within such a void, Niles (2016) reported that the teachers in the case study setting were left to grapple with how to effectively use learning stories. “Teachers were producing and sustaining assessment knowledge and understanding within the interactions they had with each other and other members of the learning community” (p.33). These findings, paralleling those of Gunn and Gilmore (2014), which are specifically explored later in this chapter, and point to the fact that if teachers are not engaging in and exposed to effective assessment practice then they are likely to continue to reproduce and sustain current practices.

In summary, the introduction of *Te Whāriki*, and the development of learning stories with their emphasis on the inclusion of children and families in the assessment process, had a significant impact on teachers’ assessment practices. Research specifically exploring the role of children and families in assessment is considered next. The research described in this section highlighted that learning stories have been widely adopted by ECE teachers, with informal assessment methods being increasingly used to gather data. Key challenges identified for teachers included that learning stories take significant time for teachers to write up and that teachers were often uncertain about the quality features of learning stories.

### **2.6.2 - Children and Family's Involvement in Assessment**

Existing research suggests the inclusion of children's and families perspectives within assessment is problematic (Cooper, 2012; Whyte, 2010; 2016). Cooper's research (2012), involving a case study in one infant and toddler setting using interviews, observations of teachers' practices and document analysis, found that upholding *Te Whāriki's* principle of engaging families and community within the assessment of children's learning was challenging in practice. Although the teachers viewed families as partners within the assessment process, this partnership "was not reflected in the assessment documentation" (Cooper, 2012, p. 79), as families tended to be given learning stories once they had already been completed, rather than being involved in the process of interpreting the information.

Whyte (2016) found that children's and parents' voices were not included in most learning stories, confirming ERO's (2013) earlier findings. Whyte also discovered that parents appeared to have limited understanding about their role in the assessment process. As a way of increasing parent participation in the assessment process, Whyte trialled the use of an 'Initiating Parent Voice' (IPV) form. Whyte's study involved her working with parents in five different ECE settings, utilising pre- and post-trial interviews and document analysis. Whyte (2010) describes the IPV as a form that includes a photograph of the child engaging in a particular learning interest, which was designed to promote conversation between the child and their parent. The parent is then encouraged to provide written feedback about the child's learning interest prior to a learning story being written. Using the IPV form was found to increase parents' participation in the assessment process (Whyte, 2016) as it promoted

conversation between children and parents, and supported the inclusion of their viewpoints prior to the learning story being written. These findings align with calls for greater and more informed parent participation in assessment (Absolum et al., 2009; MoE, 1996; 2004/2007/2009; 2011).

In another study trialling ways to increase parent and child participation in assessment, Hunt and Rawlins (2016) adapted Whyte's (2010; 2016) IPV form as a 'learning snapshot'. The small-scale study involved the parents of six four-year olds in one setting, gathering data through entry and exit surveys and focus group interviews. The learning snapshot included unanalysed photographs of the child engaging in learning, which were sent on home on the day of the learning. Parents were asked to discuss with the child, noting down the conversation and sharing ideas for building on the child's interest. The returned learning snapshots were shared during team planning meetings and used to inform teachers' responses to children. Families reported finding the learning snapshots easy to use, which encouraged further use, and that discussions were learning focused. The learning snapshots also encouraged collaboration and partnerships between parents and teachers, parent contributions to children's portfolios increased substantially, and teachers were supported to be more aware of children's learning as a result of the increased detail shared.

While the results of this small-scale study are not generalisable (Punch, 2009) to the wider ECE sector, they, in conjunction with the findings of Whyte (2016), help to paint a picture of the ways in which parents can be supported to play an active role in collaborating with teachers in the assessment of children's learning. Hunt and Rawlins's study is also one of the few studies that explores

the assessment of four-year-old children specifically, and therefore makes an important contribution to the research in this area.

### **2.6.3 - ePortfolios and Assessment**

Developments in information communication technology (ICT), and particularly tools for taking photographs, video and audio recordings, have impacted significantly on the ways that technology is used to document and share assessment information (Carr, Hatherly, Lee, & Ramsey, 2002). Parallel advances in computers and the internet have given rise to ePortfolios — an online portfolio similar to the hard-copy portfolio previously described. A number of studies have sought to explore the ways ePortfolios are being used by ECE teachers to support the assessment process. Findings suggest that ePortfolio's assist communication between teachers and parents (Goodman & Cherrington; Higgins, 2015), provide more convenient access and increased opportunities for children and teachers to revisit learning (Hooker, 2016; Wilson, 2015), and support parents to engage in their child's learning (Goodman & Cherrington, 2015).

Higgins's (2015) case study research with parents of 2-5 year olds in one site found that more substantive information was shared by parents when teachers shared information that was specific to the child and that foregrounded the child's learning. Similarly, Goodman and Cherrington (2015), who examined teachers' and families' engagement with a commercially available ePortfolio through survey, case study interviews and observations, found that 42% indicated that they were used 'a little' to gather information to be used in planning, with 35% indicating that they were used 'quite a lot'.

Hooker (2016), in a study involving survey and six in-depth case studies with children, teachers and families, explored the introduction of ePortfolios in one ECE setting. Hooker found teachers' formative assessment practices were enhanced through using ePortfolios, that learning stories became more complex and more frequent and were of a higher quality due to having deeper and richer conversations about children's learning with parents and other teachers. Most of the teachers in Hooker's study also believed that ePortfolios "would be more effective for transition to school processes than the paper-based portfolio" (Hooker, 2016, p. 206), as the ePortfolio system used allowed for specific links to be made between *Te Whāriki* and the key competencies of the *New Zealand Curriculum* (Ministry of Education, 2007) at the click of a button.

Challenges with using ePortfolios were also noted, however, such as teacher knowledge and adults' beliefs about communicating online (Wilson, 2015), and time for parents to engage online (Goodman & Cherrington, 2015). However, taken together these studies suggest that ePortfolios have the potential to support teachers' engagement in effective assessment practices, but that this is reliant on the teachers' knowledge of assessment and engagement with the online tool.

#### **2.6.4 - Teacher Beliefs and Practices about Subject Knowledge and the Assessment of Subject Knowledge**

*Te Whāriki* is a holistic curriculum in which all aspects of children's learning and development should be supported in unison. Through the provision of an integrated and holistic curriculum specific subject content knowledge, such as mathematics, literacy, science and the arts, should be evident (Hedges & Cullen, 2005). Such knowledge aligns with the concept of children's working theories,

as referred to in *Te Whāriki*. Working theories is a term introduced in *Te Whāriki* and later defined as being “a unique system of ideas that is based on a person’s experience and provides them with a hypothesis for understanding their world, interpreting their experience, and deciding what to think and how to behave. This system is in a constant state of development and change” (MoE, 1998, p. 88). Children’s working theories, along with their dispositions, should therefore be the focus of assessment.

However, as acknowledged by Hedges and Jones (2012), children’s working theories have received far less attention than dispositions within the research literature. The need for teachers to have subject knowledge, as well as curriculum knowledge has been highlighted by Hill, Cowie, Gilmore and Smith (2010), who state such knowledge is necessary to foster future learning. This section will therefore explore relevant research that considers teachers’ beliefs about subject knowledge and the assessment of children’s subject knowledge.

Research exploring kindergarten teachers’ beliefs about and support of children’s emergent literacy undertaken by McLachlan-Smith (1996) who found a “gap between the rhetoric of literacy promotion by Head Teachers and the observed practice” (p. 278). The research involved interviews with 12 Head Teachers, as well as carrying out case studies in six kindergartens involving interviews with teachers and parents, observations and document analysis. Although a number of teaching practices to support children’s emergent literacy were noted during the interviews, these were not all evident when observing the teachers’ practices. McLachlan-Smith also noted that a strong relationship existed between the teachers’ beliefs that they had a social and moral

responsibility to support children's literacy learning and the recently introduced draft of *Te Whāriki*. However, the view that *Te Whāriki* put into words what teachers were already doing was also evident, suggesting that teachers' beliefs were not being challenged by the introduction of *Te Whāriki*, but rather the curriculum was being interpreted in ways that aligned with what teachers believed and were already doing.

In contrasting findings, Sherley (2011) explored kindergarten and new entrant (NE) teachers' beliefs and practices in relation to mathematics, including the assessment of mathematics. Using a case study approach, involving observation, interviews and questionnaires, teachers' beliefs and practices in five kindergartens and their neighbouring primary schools were explored. Sherley (2011) noted a lack of intentional teaching being used to support children's mathematical learning and development, perhaps provided evidence of kindergarten teachers' beliefs about their role in supporting children's mathematical learning. Intentional teaching has been defined as "the purposeful and deliberate actions of teachers, drawing on both their knowledge of individual children and professional knowledge and skills to provide meaningful and appropriate curricular experiences for all children in ECE" (McLaughlin, Aspden & Snyder, 2016, p. 2).

Despite formative assessment practices being explicitly promoted (MoE, 2004/2007/2009), the scarcity of intentional teaching observed within this study could be an indicator of the absence of planned responses to support children's future learning by teachers. It is worth noting that Sherley's research involved only kindergarten teachers, and as kindergartens employ only 100% qualified

and registered teachers, they are markedly different from most other ECE service types. It is therefore possible that the responses given by the teachers involved are not indicative of the beliefs and practices of teachers in the wider ECE sector.

A study focused on mathematics undertaken by Lim (2012) sought to explore how teachers use documentation, including learning stories, as part of their assessment practices. Lim explored the assessment of mathematics by teachers in three New Zealand kindergartens using interviews, purposeful sampling of learning stories from the portfolios of six children attending each of the kindergartens and interviews with their parents. Because all of the children included in the study were between three and five years of age (Anthony, McLachlan & Lim, 2015) this study is particularly relevant to the current study which focused on the assessment of four-year-old children.

Lim (2012) found that children's mathematical learning is not well documented in assessment. The teachers in Lim's study were invited to choose which portfolios were analysed, based on the criteria of portfolios needing to contain stories that included mathematics and concerning children who had an ability in and were interested in mathematics. It is therefore likely, given this type of sampling, that the teachers involved chose portfolios that had a higher number of mathematical related stories than would be average across the setting. It is probable that the portfolios included in the study are not reflective of the 'average' portfolio. Therefore, the finding that mathematical learning was not well documented is noteworthy.

This finding contributes to the growing body of research regarding the assessment of young children, and aligns with those of Davies (2011), who found that assessment narratives tended to refer to children's dispositions rather than their developing mathematical content knowledge. Providing further evidence of the lack of attention paid to assessing children's subject knowledge comes from Mawson (2011), whose Playcentre based study found that less than 8% of the learning stories analysed related specifically to literacy and/or mathematics. White (2009) challenges the central tenets of current assessment practices in the New Zealand ECE context by stating that what is noticed, recognised and responded to by teachers is in fact privileging some aspects of learning over others and suggests that assessment practice is not well served by any one approach on its own. "I suggest that there are significant epistemological and ontological tensions inherent in the current privileging of the learning story genre in contemporary assessment practice, yet to be explored, given its privileged position in New Zealand early childhood education discourse" (White, 2009, p. 2007). The studies discussed in this section suggest that the assessment of children's subject knowledge is somewhat limited and influenced by teachers' beliefs. The next section provides a critique of the research and literature focused on assessment within a diverse range of contexts and the assessment of children with diverse abilities and needs.

## **2.7 Assessment and Diverse Learners**

Within any ECE setting there are also a diverse range of children whose learning and development needs to be assessed. Studies relating to assessment for Māori and Pasifika children and for children with additional needs is specifically explored in this section. In the context of this thesis, the term 'additional needs'

refers to children who require additional learning support to engage in and achieve in ECE. It is however worth noting that the term 'needs' is itself controversial due to the complex assumptions and judgements about children which the term encompasses (Woodhead, 1997). The term 'Pasifika' is an overarching term used to describe "trans-culturally diverse peoples from the Pacific region who now live in New Zealand but continue to have family and cultural connections to the Pacific Island nations" (MoE, 2018a, p. 5).

### **2.7.1 - Assessment for Māori and Pasifika Children**

When looking at assessment focused on Māori and Pasifika children, only a small amount of research on this topic has been carried out. Arguably the most well-known is by Rameka (2012a), whose doctoral research specifically explored assessment within kaupapa Māori ECE settings. Rameka's doctoral study, and associated publications (Rameka, 2009; 2011; 2012b; 2013), sought to "examine the reclaiming and reframing of Māori ways of knowing and being within early childhood practice" (Rameka, 2012a, p. i) with assessment being valued as the vehicle for doing so. Three Māori ECE settings, two Māori immersion settings and a kōhanga reo provided the case study sites, where Rameka worked with the kaiako (teachers) for a period of five years as they grappled with their assessment practices and understandings. Input from the kaiako in each of the case sites varied: one site included the whole team in the study; while it was predominantly management who participated in the other two sites.

Through her research Rameka (2012a, 2012b) highlighted the importance of a kaupapa Māori approach to assessment. Within a kaupapa Māori approach dominant mainstream practices and structures are challenged by Māori in order

to validate and give legitimacy to Māori ways of being and knowing (Rameka, 2012b). Kaupapa Māori assessment acknowledges that Māori ways of knowing and being are unique, and that learning is deeply rooted within these. Within this approach assessment is culturally and contextually located, taking into account the child's culture and the specific context of their whānau and community. A kaupapa Māori approach to assessment also pays attention to identifying, promoting and protecting the child's spiritual characteristics and their connectedness to the universe (Rameka, 2012b).

Rameka (2012a) suggests that upholding a kaupapa Māori approach to assessment requires specialised knowledge, skill and understanding, not just of assessment, but also of te ao Māori – a Māori worldview. In 2009 the Kaupapa Māori early childhood assessment exemplars, *Te Whatu Pokeka* (MoE, 2009b), were introduced to the sector. With Rameka as the project director, a team of Māori educators had worked on developing a resource that drew on “Kaupapa Māori frameworks and exemplars of assessment” (Walker, 2008, p. 5). The resource aimed to support Māori ECE settings to incorporate kaupapa Māori approaches to assessment in ways that privilege and empower Māori children by recognising and respecting their cultural capital as a “powerful vehicle for the normalisation of success for Māori children and whānau” (MoE, 2009c, p. 47). The development of such a resource provides evidence of the need to engage in assessment practices that acknowledge and are responsive to differing cultural backgrounds.

While *Te Whatu Pokeka* relates specifically to Māori culture, other cultural groups also exist within the New Zealand context and some have questioned the

relevance of current assessment practices. For example, questions about the cultural responsiveness of ECE teachers' assessment practices for Samoan children have been raised by Luafutu-Simpson (2009), who carried out a study designed to examine ECE teachers' existing practices when assessing Samoan children's learning and then worked to enhance these practices. Luafutu-Simpson had found that mainstream assessment processes were not a good fit for Pasifika children. Working collaboratively with two Samoan ECE settings and with an ECE Pasifika Network group in an action research project, Luafutu-Simpson sought to examine teachers' assessment practices and the beliefs and experiences which underpinned these. A cultural conceptual framework was developed as part of the research, providing "an authentic Samoan lens in which Samoan educators could then visualise when assessing Samoan young children, but taking into account the learning and/or behaviours that Samoan communities value" (Luafutu-Simpson, 2009, p. 5).

Luafutu-Simpson (2009) has noted a paucity of research focused on the assessment of children whose cultures valued different knowledge, skills and attitudes from the dominant culture. As a result of her small-scale action research study, which involved Samoan ECE teachers, the 'Fale Tele model' was developed to support the authentic assessment of Samoan children through a conceptual framework which aligns with Samoan beliefs and values. Similar questions have also been asked by Tagoilelagi-Leota (2010), who queried whether young children are being over-assessed with lenses that are not culturally responsive. The need to engage in assessment practices, which are culturally appropriate and culturally responsive, was also a key finding of Rameka (2012a). To meet the needs of all of the diverse range of service types

in the New Zealand ECE sector it is important that learning stories focus on what is valued by individual families and taking into account their cultural values.

### **2.7.2 - Assessment of Children with Additional Needs**

As well as being responsive to a varied range of ECE contexts, assessment practices also need to be responsive to a diverse range of learners, including learners who have additional needs and those who are gifted and talented. This section of the literature review therefore specifically explores existing research and literature about the ways diverse groups of learners are currently assessed in the ECE sector.

Following the introduction of *Te Whāriki* and its strengths-based focus, changes in assessment practices for children with additional needs were required, as existing practices tended to have a deficit focus (MacArthur, Purdue & Ballard, 2003). It is also worth noting that prior to the introduction of *Te Whāriki* teachers had tended to focus on only assessing children with special educational needs (Bell, 1990; Wilks, 1993). The introduction of *Te Whāriki* however required a shift to ensuring that all children were being assessed and a more global approach to assessment.

Williamson, Cullen and Lepper (2006) explored using learning stories, which are underpinned by a strengths-based focus, as an assessment method for children with additional needs. The teams surrounding two four-year-old children, including parents, teachers, health and education professionals and support workers, were assisted to develop their knowledge of learning stories as an assessment method by a PD facilitator over a three-month period. Pre- and

post-project interviews were used to gauge the participants' views, understandings and experiences, with participants also giving written responses to four questions following the team meetings.

Learning stories were found to support parents to be engaged in the assessment process, and to be more empowering for parents, teachers and support workers. Through the learning stories children's interests and strengths were valued, as well as their skills, while supporting inclusive practices and collaborative relationships. The significant time required to engage in narrative assessment practices was a recurring barrier, for both teachers and early intervention (EI) specialists, which aligns with findings from other studies (Dunn, 2000; Loggenberg, 2011; Niles, 2016). The findings of this study, though small scale, provides support for learning stories as an assessment method which is supportive of children with additional needs.

Similarly, Dunn (2000; 2004) has argued that learning stories can be used effectively to assess children with additional needs. However, Dunn (2004) also noted that the strengths-based focus was of concern to some as it did not necessarily represent the child's usual skills or behaviour. Dunn refers to data she and others helped to collect as part of the *Kei Tua o te Pae* booklet specifically focused on inclusive assessment practices (MoE, 2004c). They found deficit thinking was apparent in meetings relating to individual learners with additional needs and within the next steps identified for their learning, and which did not always align with the strengths-based learning stories that teachers were writing. Dunn's (2000; 2004) findings suggest that while learning stories have potential as an assessment approach for children with additional

needs, the practical application of this approach presents potential challenges. Niles (2016), for example, found that some teachers did not know how to deal with assessing or documenting children's needs within the strengths based approach that underpins learning stories. While the teachers understood the need to focus on children's strengths, they were also aware that it was important not to ignore aspects of children's learning which required support.

As noted by Hill (2011) previous theories and practices, such as moving from a deficit to a strengths-based model, frequently persist in practice even if the rhetoric used by teachers has altered to reflect more current trends and terminology. Niles (2016) found evidence of such challenges within her research setting, where "Teachers supported children in areas which had been identified as needs, and areas children were developing in were regularly a point for discussion with families. However, this information was often not reflected in documented assessments" (p. 57). These findings suggest that teachers are uncertain about how to include assessment information relating to children's needs within the learning story.

Caulcutt and Paki (2011) have noted that the strengths-based focus underpinning *Te Whāriki* can be at odds with the accountability measures underpinning the EI resource allocation. EI tends to be more firmly underpinned by developmentally appropriate practices, with a focus on what children were not yet able to do. As a result, standardised norm-referenced assessment has been commonplace in EI, with a focus on particular skills aligned with the child's age with children's access to MoE funded EI being reliant upon the use of standardised assessments (Caulcutt & Paki, 2011). The different

assessment practices and focuses of the assessment “have formed the basis for conflicting perspectives” (Caulcutt & Paki, 2011, p. 36).

The assessment of gifted learners, who come under the heading of children with additional needs, was explored by Margrain (2009) who gathered examples of learning stories of young gifted children in four ECE settings to reflect on their usefulness for informing teachers’ responses to gifted learners. Checklists and standardised tests have sometimes been associated with assessing gifted learners. However, Margrain asserts that teachers need “assessment data that is more holistic, interpretive and reflective than numeric data, grades and marks” (Margrain, 2009, p. 3) and to pay attention to the broad curriculum which children are engaging in, whilst breaking down the belief that giftedness can only be assessed using standardised testing. Margrain suggests that learning stories have the potential to provide such assessment data for gifted learners, despite exemplars relating to gifted and talented learners not being included in *KTotP*. In a subsequent article exploring the same study, Margrain (2010) however acknowledged that learning stories often differ markedly in content, presentation, style and focus. Such variations can be problematic, although Margrain (2009; 2010) supports the use of learning stories to assess gifted learners and show their learning over time.

The studies discussed in this section suggest that ECE teachers are experiencing some challenges when assessing children with additional learning needs. Not only are the assessment practices used by ECE and EI specialists different, the completion of narrative forms of assessment are time consuming and those involved in supporting the children have varying understandings of learning

stories. In addition, the strengths-based focus underpinning *Te Whāriki* and learning stories poses a dilemma for ECE teachers when children have learning needs that require support. The need for increased alignment between the assessment practices utilised in ECE and specialised services is apparent, though as Caulcott and Paki (2011) note, this requires shifts in knowledge and practice on both sides.

## **2.8 - Sources of Assessment Knowledge and Beliefs**

Given the importance of teachers' knowledge and beliefs, it is useful to explore what influences these. One influence on teachers' assessment knowledge and beliefs is their engagement in initial teacher education (ITE) programmes (Hill, Smith, Cowie & Gilmore, 2013). In a study investigating student teachers' beliefs and understandings of assessment, including ECE ITE students, Hill et al. examined student teachers' assessment capabilities. Student teachers from four universities engaged in the study, with data collected via questionnaires, focus group interviews and facilitated conversations between teacher educators in a multiphase study over a period of three years. The number of student teachers participating in each phase of the study, which involved 10 data collection points, varied. The study found that upon completing their ITE programme, the student teachers were in a position to use assessment to support children's learning. Shifts in the participants' assessment knowledge and beliefs were evident by the end of their ITE programme, which included knowledge of formative assessment and the teachers' role within assessment.

Gunn and Gilmore (2014) undertook a sub-study within Hill et al.'s larger study, following a cohort of students as they undertook a three-year ITE programme.

The study involved 44 student teachers, where the student teachers discussed and described what they had learned about assessment through their ITE programme, as well as completing a questionnaire and describing a successful example of assessment. Strongly held beliefs about assessment were identified, particularly about the need to engage in formative assessment practices, and for using assessment “for identifying, tracking, furthering, and reporting on learning” (Gunn & Gilmore, 2014, p. 33-34). Such beliefs align with the current dominant discourse of ‘Notice, Recognise, Respond’ as promoted in *Kei Tua o te Pae*. Of note, the emphasis placed on formative assessment by these students is somewhat at odds with the findings of Lim (2012) and Stuart et al. (2008) who noted that planning for children’s future learning was only occasionally evident in teachers’ assessments.

Gunn and Gilmore (2014) found that student teachers complete their ITE programmes with a sound understanding of ECE assessment practices. Gunn and Gilmore noted that the participants’ understandings of assessment would continue to develop as the participants moved from being student teachers to beginning teachers in the sector as “they are poised to further develop their assessment expertise in the settings in which they gain employment” (Gunn & Gilmore, 2014, p. 35). These findings nevertheless contrast with the findings of Stuart et al. (2008) and ERO (2007; 2013) which indicated that many teachers’ assessment practices needed further development. While these studies involved much larger samples of teachers whose qualification were gained through a range of different ITE providers, the Gunn and Gilmore study included students from just one ITE provider. The results could therefore be a local anomaly, or it could be that students believe they have a sound understanding

but that they struggle to put this into practice in the sector. If, as the evidence suggests, a number of teachers in the sector do not have a thorough understanding of assessment it is possible that the practices and understandings which are modelled to and shared with beginning teachers do not align with what they have learned in their ITE programme.

The small-scale study undertaken by Loggenberg (2011), previously discussed in Section 2.6.2, sought to examine the assessment related content of ITE programmes. Although a questionnaire was sent to the programme co-ordinators of all 26 ITE programmes across New Zealand, only three responded. Such a limited response rate means that broad generalisations cannot be made from the data, however the study has been included as it is one of the only studies that has sought to gather this information. The participants reported that learning stories and annotated copies of children's writing or art provided the most useful assessment information, though one indicated that learning stories were not useful at all. Many of the responses provided by the participants were not cohesive, such as one reporting that observation methods were not taught, despite the emphasis placed on observation in both *Te Whāriki* and learning stories.

The degree to which the complex nature of narrative as an assessment method is considered within ITE programmes is unknown (Farquhar, 2008). The participants reported a belief that "teachers primarily learn to assess through pre-service teacher education and then through professional development and colleagues on the job" (Loggenberg, 2011, p. 65). Such beliefs reiterate the important role that ITE providers have in supporting beginning teachers'

knowledge, skills and attitudes about assessment, yet Loggenberg's findings provide some evidence of their being limited alignment in assessment related content across ITE providers.

Differences in assessment related content within ECE ITE programmes was previously explored by Kane (2005), as part of a larger study into ITE policy and practice across the sectors. In 2005, 20 providers offered a range of ECE ITE programmes, including pre-service and field-based offerings, with face-to-face and distance based programmes, with the most common qualification being a three-year, degree level qualification. Kane found that 45% of the 2005 ECE student teacher intake enrolled in University or College of Education programmes, with the remainder enrolled in private training establishments (PTE's), polytechnics and a very small number in wānanga. By 2015 the percentage of graduates coming from University based ITE programmes had dropped to 32%, while graduates coming from PTE's had risen to 40% (Education Counts, 2017). When comparing the 20 ECE ITE providers operating in 2005, Kane noted significant variation in the content within each of the ITE programmes and that only a few of the ECE teaching qualifications specifically addressed assessment within their programmes.

Following the completion of an ITE qualification teachers working in the sector require ongoing PD and professional learning (PL) as a means of further enhancing their knowledge and practices. PD has come to be considered to be external from the teacher whereby information is delivered to them with the intent of enhancing teacher practices (Guskey, 2000). In contrast PL refers to the internal process whereby individuals further develop their professional

knowledge (Timperley, Wilson, Barrar & Fung, 2007). PL emphasises teachers' own personal responsibility for their own ongoing learning and growth in regards to their professional knowledge and practice. It is worth noting that the terms PD and PL are sometimes combined as 'Professional Learning and Development' (PLD), as is the case in the New Zealand MoE commissioned 'Teacher Professional Learning and Development. Best Evidence Synthesis Iteration' (Timperley et al., 2007).

As outlined earlier, *Kei Tua o te Pae* was developed as a PD resource to support teachers' understandings of learning stories as an assessment method. Issues with the resource have been identified however, including that many key terms and concepts, such as what narrative assessment and summative assessment are, and information on how to collect data, are not explained and discussed (Perkins, 2013). This information may have been excluded because it was assumed those engaging with the resource understood them, but as Perkins notes, such oversights can influence beliefs and circumvent discussion in ways that prevent ideological positioning being open to critique. While learning stories are based on a narrative approach to assessment, Perkins (2013) noted, "There was no theoretical or research support evident for the use of narrative" (p. 74) within the books analysed. It is worth noting that the intent of *Kei Tua o te Pae* was to provide teachers with examples of documentation, and the resource itself acknowledges that these examples are not perfect, to support discussion amongst teachers. However, given that this is the only assessment focused resource which has been made available to mainstream ECE teachers, paying greater attention to positioning the resource and learning stories within the wider assessment context may have been useful. An increased emphasis on

explaining terminology and underpinning assumptions may have been helpful in supporting teachers to further develop their assessment knowledge.

Despite observation being described as a key tool in assessment literature (Fleer & Robbins, 2004; Fisher, 2008; Giardiello, McNulty & Anderson, 2013; Podmore & Luff, 2012), and the only assessment method specifically noted in *Te Whāriki*, observation is not explained within *Kei Tua o te Pae* and is scarcely referred to. The absence of discussion relating to summative assessment, despite it too being a core feature of assessment practices (MoE, 2011), is also of concern. According to Perkins, without information about the summative and formative purposes of assessment, teachers will find it difficult to develop their understandings of both purposes and to effectively use assessment information in formative ways.

A range of factors influence teachers' knowledge of assessment, including the learning they engage in during their ITE programme and the PD resources available to them. The findings of the studies explored here suggest that there is likely to be variation across ITE programmes in terms of what is taught about assessment, and that while beginning teachers believe that they have a sound understandings of assessment this does not necessarily transfer into their everyday practice. Concerns also exist in relation to *Kei Tua o te Pae* given the omissions and assumptions that the resource makes.

## 2.9 - Critique of ECE Teachers' Assessment Knowledge and Practices

Given the complexity of assessment, including methods used and potential purposes, challenges with assessment in ECE are often described. Within New Zealand these challenges included a dominant focus on learning stories as the primary method for assessment. For example, learning stories require teachers to have a sound understanding of the process of developing a learning story but also of assessment and how assessment information should be used to inform planning and curriculum. Substantial evidence suggests that teachers require on-going professional learning and support to effectively use learning stories as an assessment and planning method (ERO, 2013; Giardiello et al., 2013; Karlsdóttira & Garðarsdóttira, 2010; Stuart et al., 2008). While professional development specifically relating to *Kei Tua o te Pae* was initially readily accessible, more recent funding cuts (MoE, 2009d) mean that for the vast majority of early childhood settings there is little access to professional support and teachers are left to 'figure out' for themselves what assessment should entail.

Research investigating teachers' assessment practices, and particularly their use of learning stories, suggests variability in quality exists. This variability includes disparity between teachers' actual practices and their espoused theories of practice (Stuart et al., 2008), and their limited use of assessment to inform planning (Lim, 2012). Stuart et al.'s findings are based on a sample of services involved in the professional development programme relating to *Kei Tua o te Pae*, with 19 settings completing a survey and 18 services participating in case studies, alongside interviews with staff from seven tertiary level organisations.

While the results suggested that the professional development programme had a positive impact on the assessment practices within the case study settings, it was also noted that teachers described practices were not consistently evident in the assessment documentation gathered. Teachers only rarely included 'next steps' in their documented assessments, and when included these tended to be brief and generalised, despite teachers' references to engaging in formative assessment practices. Although assessment information was being used by teachers to inform their responses to children, this was not always documented and "these practices rarely became part of the written narrative" (Stuart et al., 2008, p. 9). These findings are problematic given that the 'next step' encompasses the assessment *for* learning aspect of learning stories.

Stuart et al.'s (2008) report also found that children's portfolios, a journal or folder containing a child's learning stories and other documentation such as art work, tended not to provide evidence of continuity of learning and children's progress. Instead the learning stories in the portfolios were often stand-alone pieces of data rather than being connected to each other to show children's learning over time or documenting how 'next steps' had been implemented. The report notes "There seems to be a tension between the role of assessment documentation as a repository of artefacts of learning, and its role as a tool of learning" (Stuart et al., 2008, p. 107), to the point that the portfolios were more scrapbooks of children's experiences. This finding suggests the portfolios were predominantly summative in nature. Similar concerns have also been voiced by Australian's Stonehouse and Gujer (2016), who noted that much of what they see are 'Doing Stories' rather than 'Learning Stories', focusing on the child's participation in the programme, rather than their learning.

These sentiments have also been reiterated by fellow Australians Fleet, Patterson and Robertson (2017), who stated that “some educators see documenting as making a Christmas present of happy snaps for families contained in a scrapbook called a portfolio” (p. 3). Here in New Zealand, ERO (2015a) has noted that assessment documentation in many services concentrated on documenting children’s participation in the programme rather than on documenting their learning. Farquhar (2008) has cautioned that ECE teachers need to avoid children’s portfolio’s being driven by a focus on record-keeping to meet accountability requirements, and rather to ensure they are focused on documenting children’s learning. The focus on assessment documentation for accountability purposes has also been noted by Mawson (2011), whose study found that some participants were concerned that learning stories were being written to meet accountability requirements rather than in response to specific learning by the child. Participants in Mawson’s study appeared to be under pressure to document assessment, with the setting requiring a minimum of two learning stories per term for each child; Mawson further noted that meeting accountability requirements seemingly put pressure on teachers across the ECE sector.

Evidence of teachers making limited use of assessment information to inform planning for children’s learning also comes from Lim (2012), as previously discussed. Of the 62 learning stories reviewed within her study, just 12 contained a ‘what next’ or an indication of planning for future learning. Where plans for future learning were included, they were often vague, such as comments about teachers continuing to provide support or opportunities. Given that none of these ‘plans’ were referred to in subsequent stories (Lim,

2012; Lim, Anthony & McLachlan, 2014) it is questionable as to how often learning stories were being used as a formative assessment method. Rather most were a summative account of learning at a particular point in time or as a record of the child's participation in an activity. Lim's study provides further evidence, along with that of ERO (2007; 2013) and the concerns raised by Blaiklock (2008; 2010), that learning stories are not being used to inform teachers' planning for children's learning. Given that learning stories were specifically developed as a formative assessment method (Carr, 2009), the ways in which they are being used appears to be contradictory to their purpose, potentially limiting their effectiveness.

According to Buchanan (2011), to date limited critical engagement with current assessment practices has occurred, including into the privileging or favouring of learning stories over other forms of assessment. Some critique of learning stories has been presented by Blaiklock (2008; 2010), who examined their usefulness through a critical analysis of the literature and his own experiences and beliefs. Blaiklock (2008) argues there is no substantive, empirical, research based evidence that verifies the effectiveness of learning stories as an assessment method, which Farquhar (2008) has also noted. Blaiklock also identifies issues around the reliability and validity of the learning stories written by teachers, as well as citing concerns around the amount of evidence each story is based upon and how frequently they are written. Blaiklock also critiqued the way that multiple perspectives are included, the ability for learning to occur across multiple contexts, and how learning stories link with *Te Whāriki* and the learning dispositions identified by Carr (1998a; 2001).

More recently, Zhang (2015) has argued that learning stories should not be endorsed as the only or best assessment method to be used by ECE teachers in New Zealand. Rather, Zhang calls for a comprehensive approach to assessment in order to address the multiple purposes of assessment, stating “assessment should be carried out in a range of ways and should not rely on one single method” (Zhang, 2015, p. 73). Undertaking a phenomenographic study that involved interviewing 24 teachers in 11 ECE settings, along with a parent from each setting and document analysis, Zhang sought to explore parents, practitioners and ERO’s views in assessment in New Zealand ECE settings.

Zhang (2015) notes that the MoE’s “unreserved endorsement and support” (p. 1) of learning stories and teachers’ lack of knowledge of alternate assessment methods meant that meaningful change to teachers’ assessment practices is challenging. Teachers’ understandings of assessment and assessment methods were found to be variable. At least one practitioner referred to wall displays being an assessment method, when in fact it is a method of documenting assessment information. Such a statement perhaps shows a lack of differentiation between assessment methods and documentation methods, and align with Perkins’ (2013) view that many teachers need to further develop their assessment understandings and practices. Zhang also noted that the ERO reviews used the terms ‘learning stories’ and ‘assessment of learning’ interchangeably, insinuating that they meant the same thing when they are not and that “ERO seemed to be confined to the production of learning stories, given that learning stories were the only assessment tool it mentioned” (Zhang, 2015, p. 9).

Much of the literature explored to date acknowledges the significant role that teachers' understandings of assessment has on how this critical aspect of teacher practice is implemented. The literature suggests that teachers may not be using learning stories to their full potential as an assessment method that informs future teaching practices. The need for on-going, sustained professional development is also highlighted, as is the need for more critique of learning stories as the dominant assessment method.

### **2.10 - Continuity Between the ECE and School Sectors**

The importance of continuity between the ECE and school sectors is well supported internationally (Dockett & Perry, 2007; Dunlop & Fabian, 2007) and in New Zealand (Peters, 2010). In 2015 the Minister of Education commissioned an 'Advisory Group on Early Learning', which recommended that a number of steps be taken to promote greater continuity of children's learning from birth to age eight (MoE, 2015b). In total 20 recommendations were made, six of which directly related to enhancing continuity between the ECE and primary schools. The report went on to note that curriculum and assessment practices across the early years, including both the ECE and school sectors, should align. This report provides clear evidence of the MoE's desire to enhance continuity between the sectors.

As children transition from ECE settings to school, they encounter a range of potential discontinuities, or differences, around curriculum, pedagogy, philosophy, the learning environment and assessment practices (Fabian, 2002; Peters, 2010; Wright, 2010). The potential negative impact of these factors on children's learning are important for teachers in both sectors to consider, as

continuity between the sectors is a key feature of effective transition to school practice (Dockett & Perry, 2007; Howie & Timperley, 2001; Peters, 2010; Timperley, McNaughton, Howie & Robinson, 2003). The ways assessment is undertaken in the two sectors has been identified as an area where significant variation and challenge may exist (Martlew et al., 2011; Wright, 2010). Yet, while research exploring teachers' assessment of infants and toddlers (see Cooper, 2012; Schurr, 2009; White, 2009) and children of mixed ages (see Davis, 2006; Turnock, 2009) does exist, to date parallel research focused specifically on the assessment of four-year-old children has not been located. Four-year-olds are identified as a specific age focus as this is the year in which children and families often prepare to transition to school, as most children start school aged five in New Zealand (Peters, 2010).

The need for such research is, however, highlighted by Wright's (2010) study and the more recent ERO (2015a) national evaluation report into the continuity of learning between the ECE and school sectors. These publications highlighted the need for enhanced assessment continuity between the sectors, with a focus on the assessment of four-year-olds as they prepare for the transition to school. The next part of this review will therefore review current assessment practices to support continuity as children transition to school. Contemporary assessment practices in schools will be discussed, followed by analysis of assessment practices which have sought to enhance continuity between the two sectors.

### **2.10.1 - Contemporary Assessment Practices in Schools**

The *New Zealand Curriculum (NZC)* places emphasis on formative assessment, whereby assessment information is used to improve both teaching and learning, noting the need to do so through the process of gathering, analysing and using assessment information (MoE, 2007). The MoE's (2011) position paper on assessment outlines its vision for assessment in the school system and promotes the use of assessment *for* learning, signalling a purposeful move away from a "narrow testing regime" (MoE, 2011, p. 4). Collecting assessment information through a multitude of means, from multiple sources, is promoted with emphasis placed on interpreting the information gathered so it can be used formatively to inform teacher's teaching and student's learning, though it does not tell teachers 'how to assess'. Individual schools and teachers make these decisions, with NE teachers using a wide range of assessment methods (Boereboom & Cramman, 2018). The MoE's online repository for resources to support teachers, TKI (MoE, 2018b), includes a plethora of assessment tools which teachers are encouraged to use.

School based approaches to the assessment of young children tend to be more formal and standardised (McLachlan, Edwards et al., 2013), such as the School Entry Assessment (SEA) tool (MoE, 1997). While the SEA tool is no longer available, the MoE (2015c) acknowledges its continued use in schools. ERO (2015a) noted that a diverse range of assessment practices were being used in schools to test NE children, with many schools creating their own assessment methods or modifying the SEA. A review of the school based assessment tools listed on the MoE's dedicated teacher support website, TKI, reveals 13 different assessment tools as being appropriate for children in year 0 (NE) or year 1 (MoE,

2017b). Eleven of the tools originate from New Zealand and five are standardised. For the most part these focused on assessing children's language, writing, mathematics and literacy via tests, interviews, observation surveys, work sample exemplars, learning progressions, and language screening tools.

In a study involving both ECE and school teachers, which focused on four-year-old children, Davies (2011) carried out a two-year long study investigating transition practices relating to mathematics learning and teaching between four ECE settings and two primary schools. Using a case study approach, practices supporting positive transitions in mathematics were explored using observations, interviews, document analysis, and photographs of children engaged in mathematical experiences. Davies found, in alignment with Mitchell and Brooking (2007), Mitchell (2008a) and Mawson (2011), that the most commonly used form of assessment documentation in the ECE was narrative assessment, which usually also included photographs. In comparison, the new entrant teachers indicated that they used specific assessment tools such as checklists or the 'Numeracy Project Assessment' tool [NumPA] (MoE, 2006).

While the MoE (2009c; 2011) supports the use of learning stories and narrative forms of assessment in schools, not all NE teachers use these. As noted by Sherley (2011), the five NE teachers involved in her study reported that learning stories were not a useful method for sharing specific information about children's mathematical learning. Children's portfolios, which contain learning stories, when shared were seen as a record of engagement rather than as a collection of assessment documentation by the NE teachers. The teachers in Sherley's study wanted more specific information about children's learning,

though none indicated that they had knowledge of *Te Whāriki*, which may have influenced their ability to understand and recognise the learning that was documented within learning stories that were shared. Sherley concluded that the differing assessment methods used in the primary school and ECE sector may contribute to the challenges experienced in sharing assessment information between the sectors that can support transition to school.

### **2.10.2 - Current ECE Assessment Practices to Support Continuity as Children Transition to School**

International, and national, literature suggests that continuity between ECE and school is enhanced when there is alignment between the two sectors (Dockett & Perry, 2007; Dunlop & Fabian, 2007; Peters, 2010), including in relation to assessment (Wright, 2010; Martlew et al., 2011). Despite these recommendations, continuity between the sectors here in New Zealand is not consistently evident (ERO, 2015a). In a national evaluation study focused on the continuity of learning between the ECE and school sectors as 374 ECE settings and 100 schools were reviewed over two terms in 2013, ERO found that just under half of the ECE settings had supportive or very supportive assessment practices for assisting children's transition to school. In ECE settings deemed to be engaging in quality assessment practices, assessment documentation was used formatively and was reflective of the strands of *Te Whāriki*. ERO (2015a, p. 16) also noted that a component of "good practice included services providing parents with a summative assessment report about their child's learning and encouraging them to provide a copy to the child's teacher at school".

Despite assessment practices in the ECE sector needing to be aligned with *Te Whāriki*, this was not evident in all services. "In a few services, assessment

practices were aligned to inappropriate teacher-directed and formal transition to school programmes” (ERO, 2015a, p. 18), including the use of standardised tests designed for the primary school sector. The use of unsuitable assessment and teaching practices provides examples of the ‘schoolification’ of the ECE sector whereby ECE teachers believe that they need to use inappropriate formal pedagogies to prepare children for school. Anecdotally I have observed ‘preparation for school programmes’ in ECE settings, where teachers engage in more formal assessment and didactic teaching with the intent of supporting children’s transition to school. The use of overly teacher-directed practices, such as extended mat times, rote learning and work sheets has also been noted by ERO (2011; 2015a), who recommended that many services needed to make substantial improvements to their programmes to ensure that teaching and assessment practices aligned with *Te Whāriki*.

Evidence of the disparate assessment methods used within the ECE and school sectors is clear. For example, learning stories were specifically developed as a way to assess children’s learning dispositions (Carr, 1998a; 1998b; 2001) in the ECE sector. In contrast, while the key competencies within NZC were purposely intended to align with the strands of *Te Whāriki* and their associated learning dispositions (Carr, 2006), no specific assessment method has been developed to assess the key competencies. Assessment methods commonly used in schools, such as tests and checklists, focus on assessing children’s skills and knowledge with particular emphasis on literacy and mathematics, as evidenced by the assessment methods listed on TKI. Successive ERO (2007; 2013; 2015a) publications have highlighted the need for ECE teachers to pay greater attention to assessing children’s skills and knowledge; something which the primary

sector has tools specifically developed for. Boereboom and Cramman (2018) do note that attention is also paid to children's socioemotional skills in the primary sector, which impact on their ability to learn, but that currently no nationally available tool has been developed to assess both children's academic and socioemotional skills.

An example of assessment being used to support continuity between the sectors can be found in the research carried out at Mangere Bridge Kindergarten, who explored the use of ECE approach to children's portfolios as a way of supporting children's learning as they moved from the kindergarten to school (Hartley, Rogers, Smith, Peters & Carr, 2010). This Centre of Innovation (COI) research project was funded by the MoE and took place over a three-year period from 2006-2009. A total of 259 children and their families were involved in the project, along with the kindergarten's three teachers, the two researchers and the NE teachers who taught in the two nearby schools. The research team came to view portfolios as much more than a formative assessment method, but rather as a potential way to connect the children and their family as they move between home, the kindergarten and school (Hartley, Rogers, Smith, Peters & Carr, 2012). Portfolios were viewed as having evolved from being an assessment method to an artefact that could support children as they transitioned to school.

Parents' experiences of sharing their child's portfolio's within this study varied however. While one parent found a NE teacher to be somewhat dismissive of the portfolio, another parent found that the NE teacher established a 'school version' of the portfolio for her child. One of the schools who participated in the study specifically developed their storage facilities to accommodate and

invite children's portfolios (Hartley et al., 2012). It is worth noting the mixed experiences of children and their families as they sought to share portfolios with NE teachers. The long-term involvement of the teachers in this project, and the relationships which were established, are likely to have had significant impact on the NE teachers' understandings of the portfolios and the information they contained. Certainly, this is not the case for all NE teachers, as Sherley's (2011) research highlighted.

In a study carried out during 2007-2008, Wright (2010) investigated how differences between the ECE and school sectors influenced children's learning as they transitioned to school. The study took place within a facilitated cross-sector PD network, where Wright was one of the facilitators. Teachers from three ECE settings and three primary schools worked together with the aim of strengthening literacy teaching and learning, and enhancing children's transition to school. Two children and one parent from each of the ECE were involved in the study, with data collected via observations, field notes, documenting cluster meetings, recording conversations, carrying out interviews, and gathering assessment documentation relating to the children involved in the study.

Wright (2010) found that the assessment practices employed in the two sectors differed significantly. In the ECE settings learning stories were the dominant method used for assessment purposes, while in the school settings work samples were commonly used, although there was variation between the schools, and other tools such as work sheets were also used. The findings demonstrated a variation between the learning that was valued within the two sectors, as assessment was "documented and presented differently, and it

revealed difference in the aspects of literacy learning that teachers took notice of; the process or the product of learning” (Wright, 2010, p. 106). The primary teachers were very well aware of the achievement criteria within the school curriculum, and their assessment practices sought to gain information relating to children’s progress in relation to these criteria.

The ECE teachers, in contrast, focused more on the learner and their learning dispositions. Wright noted that these differences might be a result of the different perceived understandings of the theoretical perspectives that underpin the curricula for each of the sectors. As such, Wright specifically noted the need for ECE and primary teachers to evaluate their assessment and literacy practices collaboratively to support greater continuity between the two sectors. As previously discussed, tools for assessing children’s skills and knowledge, and their dispositions, competencies and socioemotional learning, already exist.

Also of note, the primary school teachers in this study indicated that they rarely received children’s individual portfolios when they started school. This means that the assessment information gathered during the child’s time in ECE was not regularly shared with their primary school teachers. The variation in assessment practices, and foci, between the two sectors were found to be challenging for teachers. Although Wright’s findings can be critiqued because they are practitioner inquiry, which some view as wanting in terms of generalisability and objectivity (Mertens, 2015), the findings contribute to the growing body of evidence which suggests a lack of continuity between the ECE and school sectors in relation to assessment.

A Teaching and Learning Research Initiative (TLRI) project, led by Margaret Carr, has explored NE teachers' use of learning stories as a way of assessing children's progress in relation to the key competencies and learning areas of *NZC*. By adapting learning stories, teachers found they were able to assess these areas, and that learning stories provided "a way to make visible the actual learning that takes place" (Smith, Davis & Molloy, 2011, p. 19). Within the same TLRI project, O'Connor and Greenslade (2011) reported on their use of learning stories, which they had used since 2003, to document children's key competencies in the NE to Year 2 classroom of a special character school. Learning stories, photos, videos, planning and other written documentation were gathered and analysed as a way of assessing and planning for the child's learning. Together these examples provide evidence of the ways learning stories are being used in school, albeit attached to a funded project that included PD support.

As part of another TLRI project, Carr, Clarkin-Phillips, Resink, Anderson and Jack (2013), noted that children's portfolios were identified as a 'gateway' to support families to engage with and participate in their child's learning. The teachers also recognised the benefits of having relationships with the teachers of their neighbouring school, and sought to strengthen these relationships. A 'transition portfolio' was developed which provided a collection of learning stories documenting the child's learning to date, and which aligned with the key competencies. Between one and three learning stories relating to each key competency were included within the transition portfolio, with the examples ideally being chosen in collaboration with the child, their family and the teachers.

The transition portfolios were found to support NE teachers to be aware of children's interests, as an artefact to support language and literacy and a means to support children's developing sense of belonging. The development of the transition portfolios was seen as providing assessment information in ways that were "accessible, manageable, and meaningful for the transitioning child and their family and the new-entrant teacher" (Carr et al., 2013, p. 40). It is however worth noting that the explicit perspectives of the NE teachers were not included in the article by Carr et al. (2013) or the final TLRI report (Clarkin-Phillips & Carr, 2009). The inclusion of the NE teachers' perspectives on the transition portfolios would have added further weight to the findings of this project.

In 2013 Davis, Wright, Carr and Peters (2013, p. 5), who had been involved in the TLRI projects discussed here, developed a resource "in response to a strong interest in the use of Learning Stories in schools". The resource, incorporating a book and a series of five workshops on DVD, sought to answer common questions about learning stories and how these could be used to assess the key competencies. This resource provides some evidence of the growing interest in using learning stories as an assessment method in the school sector, though it does not itself provide information on how many schools are using them.

Further evidence of the assessment practices currently used to support continuity of children's learning comes from Mitchell et al.'s (2015) report to the MoE on the *Continuity of Early Learning*. Mitchell et al. found that most of the written assessment documentation was in a narrative format, and were primarily learning stories. Children's learning dispositions were emphasised in the written assessments, though other learning areas were apparent. The

school participants placed emphasis on both key competencies and skills/knowledge. The ECE teachers supported a strength's based focus, though some parents wanted information about children's needs. In both the ECE settings and schools, assessment information was collected via observation, informal conversation, work samples and specially designed tasks. In the ECE settings assessment information was documented in learning stories, as well as through photographs, wall displays, portfolios and planning documentation. Meanwhile the school based assessment information was collected and documented via more formal approaches such as running records, achievement ladders, diagnostic tests and more informal approaches such as portfolios and teacher comments.

While the report acknowledged a number of positives in relation to the assessment practices being used, such as the positive possibilities when schools and ECE settings collaborate and the potentially powerful role assessment has in supporting children's transition to school, a number of challenges and areas for improvement were also noted. Of note, some of the NE teachers did not understand the information contained in the portfolios, and others did not think they contained useful information. While most valued the emphasis on dispositions, some also wanted more assessment of children's language development and discrete skills, which has been shown by others to be lacking from assessment documentation (Lim, 2012; Sherley, 2011). The report acknowledged the need for ECE teachers to analyse the assessment documentation to ensure breadth and depth across all learning areas, and to be to ensure it depicts children's learning and progress over time. Mitchell et al. (2015) therefore suggested that additional professional resources, PD and

research was needed to support ECE teachers in the “gathering, analysis, interpretation, aggregation, and use of data” (p. 7).

Accompanying Mitchell et al.’s (2015) report to the Ministry was a ‘Report on the Literature Scan’ (Carr, Cowie, & Davis, 2015). The literature scan sought to “scope some of the literature” (Carr et al., 2015, p. 1) by “selectively reviewing research, policies and programmes internationally and nationally of relevance to the New Zealand context” (Carr et al., 2015, p. 4). The MoE specified the scan’s structure and over 300 relevant sources were identified. The structure specified by the MoE was built around three debates: an exploration of the educational outcomes valued and the educational outcomes to be assessed; who performs the assessment and who is the audience; and exploring the timeframes set for learning goals and the assessment of these, along with the intended and unintended effects of these timeframes. Following a discussion of the literature relating to these three debates, a more in-depth discussion of these areas followed based on practices utilised in other countries, where the three debates were then aligned to the notions of Competence, Community and Continuity.

Findings included that subject knowledge and attitudes to learning were both valued, and in fact closely connected. Assessment which supports children’s developing identity as a learner and supports their motivation to learn were also seen as foci, as was the need for assessment to take a strengths-based approach to assessment. Carr et al. (2015) noted the impact of underpinning theoretical positions on policy, practice and literature, whilst also highlighting the fact that teachers’ own theoretical positions influence the learning that is noticed,

recognised, responded to and documented across both the ECE and school sectors. The authors went on to note that the evidence within the literature scan supported the MoE's (2011) position on assessment, particularly in that assessment should be situated within relationships and connected to the child's family and community. Carr et al. also stated that assessment was valued in the short- to medium-term for tracking children's progress, but also in the long-term for supporting ongoing learning. The report also made reference to educational innovations in the New Zealand educational context, such as the use of narrative assessments, connections between *Te Whāriki* and *NZC* and programmes which have sought to enhance assessment strategies. While this literature scan provides a very useful summary of literature on the topic of continuity of early learning and includes data from a comprehensive data set, it does have limitations in that the parameters of the project were pre-set by the MoE and it is a 'scan' of the literature rather than a more in-depth literature review. However, given the extensive list of literature included

Of note, research reported in this section that demonstrates the use of learning stories in schools comes from TLRI funded research programmes, rather than from a 'usual' school or classroom. While this does not mean that other schools are not using learning stories as an assessment method, it is important to note this feature as the school teachers involved in these projects have had access to significant research and PD to support their learning. Such opportunities have not been available to all primary school teachers, and so it is important to note that the findings reported here are not applicable to the wider school sector.

The examples of assessment continuity outlined here suggest that while assessment has the potential to support children's continuity of learning as they transition to school, some aspects of current assessment practices need further strengthening and refinement. A range of assessment tools already exist in the ECE and school sectors, though each sector tends not to use the tools associated with the other sector. Given that more than half of the services included in ERO's (2015a) evaluation needed to improve their assessment practices to better support children's transition to school and their continuity of learning, it appears there is still much room for improvement.

## **2.11 - Chapter Summary**

This chapter has demonstrated that assessment plays a core role in supporting children's learning, and is a key responsibility of teachers. The assessment methods used by teachers are influenced by the curriculum, and in New Zealand the introduction of *Te Whāriki* necessitated a shift in ECE teachers' assessment practices. Learning stories, which were developed to specifically align with *Te Whāriki*, were quickly and widely adopted by teachers. However, ongoing concerns regarding ECE teachers' assessment practices have been repeatedly noted. The assessment of children's subject knowledge has been identified as an area of uncertainty, along with the assessment of diverse learners. ITE, in setting experiences and PD have been explored as sources of teachers' assessment knowledge and beliefs.

Despite the importance of continuity for supporting children's positive transitions to school, concerns have also been identified in relation to continuity between the ECE and school sectors, including in relation to assessment.

Although assessment has been identified as an area of current discontinuity between the two sectors, to date research has not been carried out which specifically explores the assessment of four-year-old children in ECE settings. The study reported on here has therefore been specifically designed to explore New Zealand ECE teachers' purposes, practices and knowledge in relation to assessing four-year-old children's learning. The following chapter will outline the methodology underlying the current study.

# CHAPTER THREE - METHODOLOGY

## 3.1 - Introduction

As explained in Chapter One, this research aimed to explore New Zealand early childhood teachers' purposes, practices and knowledge in relation to assessing four-year-old children's learning. To investigate this aim, three research questions were designed:

1. What do New Zealand early childhood teachers believe are the purposes of assessing four-year-old children's learning?
2. How do New Zealand early childhood teachers assess four-year-old children's learning?
3. What knowledge underpins New Zealand early childhood teachers' assessment of four-year-old children's learning?

This chapter will explain the underlying epistemology and theoretical perspectives, as well as providing detail relating to the study's methodology and the research methods utilised. Information about the research participants and data collection processes used will be detailed, followed by an outline of the steps taken to improve the legitimisation of the study. A description of the data analysis process is provided, and finally this chapter explains the ethical considerations taken into account throughout the study. As the research involved two phases, two separate samples were required. To aid clarity, an outline of the study participants is also included at the beginning of Chapter Four.

## 3.2 - Research Design

Crotty (1998) proposes four elements that need to be addressed when designing research: the epistemology that informs the theoretical perspective, the theoretical perspectives underlying the methodology, the methodology

underpinning the choice of methods, and finally the methods used within the study. The following section will discuss each of these elements of the research design.

### **3.2.1 - Epistemology**

Epistemology can be defined as “the theory of knowledge embedded in the theoretical perspective and thereby in the methodology” (Crotty, 1998, p. 3) and is an important consideration because it impacts upon the theoretical frameworks chosen, as well as methodology and methods. The epistemologies which underpin this study are constructivism and constructionism, while being influenced by a pragmatic worldview. Creswell and Plano Clark (2011) use the term ‘worldview’ to describe the philosophical beliefs and assumptions which researchers bring to their study.

Constructivism and constructionism are very closely connected, with constructionism emerging directly from constructivist beliefs about knowledge development. Constructivist approaches to knowledge see meaning as being constructed by people rather than ‘found’ (McLachlan, 2010; Phillips, 1995). Constructivism asserts that knowledge is constructed as people actively engage in constructing and reconstructing theory and practice (Carr & Kemmis, 1986). As such, “Knowledge is neither inside a person nor outside in the world but exists in the relationship between persons and the world” (Brinkmann & Kvale, 2015, p. 62). Constructionism, a development from constructivism, also views meaning as being constructed rather than discovered (Crotty, 1998). Constructionism however emphasises these constructs being shared with others, through language for example, while constructivism accentuates the

more cognitive and individual construct of knowledge. Despite such differences, the foundation of both epistemologies is that knowledge is actively constructed by people as they engage with the world around them. It is therefore possible that “multiple, contradictory, but equally valid accounts of the same phenomenon ..... can exist” (Onwuegbuzie, Johnson, & Collins, 2009, p. 125).

Pragmatism is also central to worldview that informed the research design. Within a pragmatic worldview of research, data is collected via the best means, or ‘what works’ in relation to the research question (Cohen, Manion, & Morrison, 2011; Creswell & Plano Clark, 2011). Pragmatism consequently involves adopting an eclectic and varied mix of research methods, which are chosen on the basis of their ability to answer the research question. Pragmatism can support the notion of multiple realities and truths, whereby knowledge is constructed based on the ways in which people experience the world (Onwuegbuzie et al., 2009). Pragmatism is therefore useful within this study, which seeks multiple perspectives relating to the research aim and questions. Pragmatism acknowledges that meaning, truth and knowledge are shifting and changing constructs (Johnson & Onwuegbuzie, 2004). Within a pragmatic approach the research questions drive the research design (Cohen et al., 2011). In the case of this study, the research aim and questions have led to the development of a mixed methods design, which utilises a range of data collection methods, in order to answer the various elements of the research aim and questions.

### **3.2.2 - Theoretical Perspectives**

Interpretivism is used in this study to explore how the participants construct knowledge. Interpretivism *“looks for culturally derived and historically situated interpretations of the social life-world”* (Crotty, 1998, p. 67, italics in the original). People’s knowledge and beliefs therefore have to be interpreted in relation to the culture in which they are created in order to help ensure they are fully comprehended. An interpretivist perspective suggests that people generate their own understanding of particular situations and contexts (Lincoln, Lynham, & Guba, 2011). Within this view, there is therefore no one objective truth or reality, but rather a multitude of truths and meanings that are discovered and constructed through people’s social interactions. This stance also aligns with constructionism in that multiple views of the same phenomenon are possible, as interpretivist approaches place significant emphasis on the role of context in understanding the meanings people make from their lived experiences (Greene, 2007).

### **3.2.3 - Methodology**

As a result of the pragmatic worldview adopted and the complex and multi-faceted topic being explored, a mixed methods approach to research design was deemed to be appropriate. Mixed methods research involves the deliberate collection and integration of both qualitative and quantitative research data (Klassen, Creswell, Plano Clark, Clegg Smith, & Meissner, 2012) and is therefore appropriate for exploring complex topics. Using a mixed methods research design allows for and encourages the collection of a broad range of data, making it possible to generate a deeper, fuller and richer picture of the complex nature of human behaviours through use of a wider range of data gathering tools.

While the term mixed methods research might first appear quite straightforward, in fact a myriad of different terms and definitions have been offered and critiqued (Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2012). The definition which has been adopted for this study states that mixed methods research designs involve “procedures for collecting, analysing, and ‘mixing’ both quantitative and qualitative methods in a single study or a series of studies to understand a research problem” (Creswell, 2012, p. 7). The use of either mixed methods or quantitative research designs has also been identified as a gap in existing research on the topic of the present study, as outlined in Chapter Two. The small amount of extant research is predominantly qualitative, with only a small number of studies looking using quantitative methods and only one using mixed methods design (see Stuart et al., 2008).

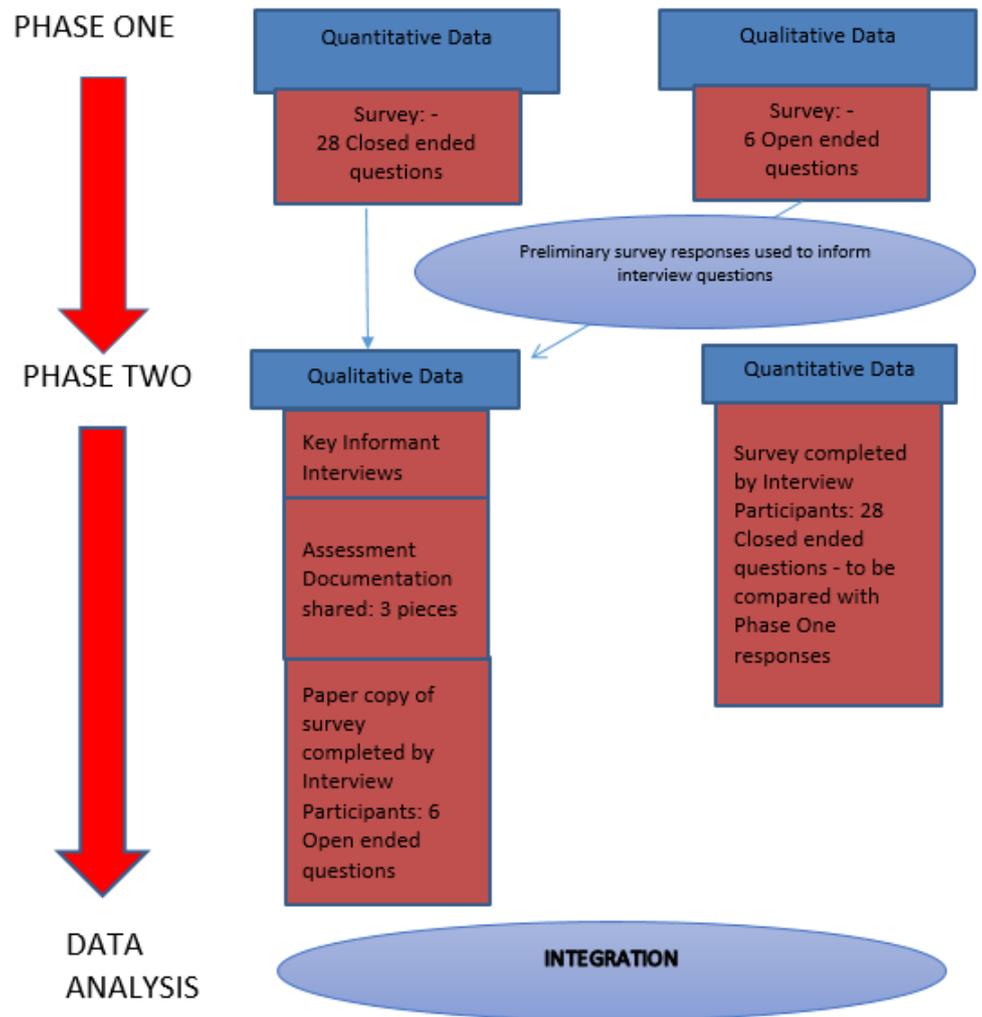
The use of a mixed methods approach is particularly applicable for research involving people and social phenomena (Denscombe, 2010; Mason, 2006), and methods selected can illuminate the knowledge constructed by individuals consistent with constructionism and constructivist approaches (Johnson, Onwuegbuzie, & Turner, 2007). Given the focus on the construction of individual beliefs and practices, the influence of context, and the usefulness of multiple sources of evidence, constructionism, constructivism and pragmatism complement mixed methods research. While both qualitative and quantitative research methods were implemented, the research had a greater qualitative focus. The research is a quan/QUAL study, which was explanatory and sequential, where the findings from phase one were used to inform phase two (Johnson & Onwuegbuzie, 2004). The integration of the quantitative and

qualitative data in a sequential way also aligns with a mixed methods research approach (Mertens, 2015).

### **3.2.4 - Methods**

Little is known about New Zealand early childhood teachers' purposes, practices and knowledge in relation to assessing four-year-old children's learning. However, research relating to ECE assessment in general does exist. The research therefore sought to explore teachers' purposes, practices and knowledge through an explanatory design, where the quantitative data is further explained through the qualitative results (Punch, 2009). The research was sequentially timed (Creswell & Plano Clark, 2011) involving two distinct phases, as shown in Figure 3.1. Phase one involved a nation-wide primarily quantitatively focused survey to gather evidence of teachers' current purposes, practices and knowledge in relation to the assessment of four-year-old children, which could then be compared with previous research on assessment. Phase two of the research involved semi-structured interviews with 14 key informants. The interview questions were based upon the phase one survey findings. Interviews were conducted with a range of experienced and accomplished teachers who represented the range of licensed ECE services located within the two provinces closest to my home. The interviews were designed to seek further explanation of the survey findings, from experienced ECE teachers. Figure 3.1 illustrates the two research phases and the ways in which the research methods and data are integrated.

Figure 3.1 - Overview of the Research Phases



### 3.2.4.1 - Phase one: Survey

Survey was chosen as a data collection method because of its ability to collect information from a wide range of people in a relatively short amount of time and at a relatively low cost (Creswell, 2012; Mertens, 2010). The capacity to include a wide range of participants was particularly important given the limited existing research on the topic and underlying perspective that different accounts may exist. The use of a survey allowed for a wide range of responses to be gathered from teachers working in a range of different service types across a wide geographical area. Carrying out a survey also provided the opportunity

to examine the findings in relation to an existing nationwide surveys (Mitchell & Brookling, 2007; Mitchell, 2008a, 2008b), part of which specifically examined ECE teachers' assessment practices (Mitchell, 2008a).

There are however challenges in using survey as a quantitative research method, including the inability to ask follow up questions to seek clarity or to provide assistance in understanding the questions (Fraenkel et al., 2012). Low response rates are often associated with surveys (Fraenkel et al., 2012; Mertler, 2016) and surveys also rely on self-reported data within a self-selected sample. As noted by Mertler (2016, pp. 118, emphasis in the original) it is the participants' "*perceptions of what they believe to be accurate*" which are recorded. Another challenge worth noting is that respondents may answer based on what they believe the researcher wants to hear (Mertler, 2016). Despite these challenges, it was decided that the use of a nationwide survey was appropriate and valuable given the focus on New Zealand teachers in the research aim and questions. The survey could then be complemented by the data collected in phase two of the study.

#### **3.2.4.2 - Phase two: Interviews**

As a research method, interviews are frequently associated with qualitative research (Mertens, 2010; Punch, 2009) and are a commonly used data gathering method (Roulston, 2010). Interviews, according to Turner (2010), allow for the collection of in-depth information from participants in terms of their experiences and points of view. Interviews are a valuable research tool because they allow people to share their own thoughts and viewpoints, allowing researchers "to find out what people think and how the views of one individual

compare with those of another” (Fraenkel et al., 2012, p. 451). Interviews therefore were a useful method for uncovering teachers’ purposes, practices and knowledge, with more opportunity to explore how these are constructed in the local context.

While there are a range of different interview types that could have been used to help ensure that interviewees were likely to be knowledgeable about the topic, key informant interviews were undertaken. Key informants have been defined by (Wolcott, 1988, p. 195) as being an individual who “appears to be particularly well informed, articulate, approachable, or available”. Key informant interviews were used in this study to enable conversations with people who were especially knowledgeable about the topic and the type of ECE setting in which they worked, and who are therefore exceptional information sources (Fraenkel et al., 2012). Interviews, and particularly key informant interviews, do however take significant time to organise and complete (Newby, 2014), as was the case in this study. Further information relating to the time taken to organise and undertake the interviews will be discussed further in Section 3.4.2.

### **3.3 - Participants**

The study sought the perspectives of a sample of qualified and registered teachers in licensed early childhood services. As at March 2015 when data collection began, there were a total of 27,343 qualified teachers working in the teacher-led ECE settings included in this study (Education Counts, 2018b). Table 3.1 below provides an overview of the numbers of settings within the different service types as at 2015.

**Table 3.1 - Number of ECE types as at 2015 (Education Counts, 2018a)**

Service Type	Casual Education and Care <sup>c</sup>	Te Kura	Education and Care	Home-based <sup>c</sup>	Hospital-based	Kindergarten	Te Kōhanga Reo	Playcentre	Total
Number of Services	9	1	2409	417	20	652	450	427	4385
Percentage of Sector <sup>a,b</sup>	<1%	<1%	55%	9%	<1%	15%	10%	10%	102%

Note: <sup>a</sup> Percentages relate to the composition of the sector in the year that data were collected

<sup>b</sup> The total adds up to more than 100% due to rounding error

<sup>c</sup> Responses from Home-based services and Casual Education and Care services were not sought during the survey as these service types did not meet the study's criteria relating to qualification levels.

The samples for both phases of the research included teachers who held an early childhood teaching qualification and who were registered, or who held a recognised alternative; Playcentre Level 3 or above or Te Kōhanga Reo's 'Te Tohu Whakapakari Tino Rangatiratanga' qualification. The decision to include only teachers who held a qualification was made to ensure that participants could reasonably be expected to have a strong understanding of assessment in their early childhood setting. In phase one qualified and registered teachers in teacher-led services, along with qualified teachers in parent-led services were invited to participate. In phase two, key informant interviews were conducted with teachers meeting the same criteria as in phase one, who worked at settings within the two closest provinces of my home. The relationship between the samples used in each phase can be described as being a 'nested relationship' because the phase two participants were a subset of those who were able to participate in phase one (Onwuegbuzie & Collins, 2007). Information relating to the study participants will be shared at the beginning of Chapter Four, directly followed by the findings.

### **3.4 - Data Collection**

Prior to data collection, approval to carry out the research was sought and granted from the Massey University Human Ethics Committee (Appendix A), with the research then occurring in two phases. In phase one, a predominantly

quantitative survey was distributed, while in phase two the same survey was repeated along with key informant interviews. As part of phase two, the interviewees also shared examples of their assessment practices, contributing further to the qualitative data gathered. Specific information relating to the data gathering undertaken in each of these phases is now presented.

#### **3.4.1 - Phase One**

The quantitative phase of the research involved the distribution of a nationwide survey to examine teachers' purposes, practices and knowledge about assessment at a national scale. An invitation to participate in the online survey was emailed to all licenced ECE services which cater for four year olds, as identified on the ECE Listing database (MoE, 2014a). The invitations for teacher-led services (Appendix B) and parent-led services (Appendix C) outlined the qualifications necessary to participate in the survey. Approximately 2500 emails were sent, along with 12 letters being mailed to Hospital-based services (Appendix D) whose emails were not included on the database. Three kindergarten associations also required organisation level permission prior to contacting teachers, which was duly sought and granted. Immediately following the initial survey invitation being sent out, a significant number of responses were collected, with the same pattern being repeated following the two reminder emails. As the invitation to participate was unsolicited, a small number of services requested they be removed from any future mail outs, which duly happened.

Because survey response rates are often low (Denscombe, 2010; Fraenkel et al., 2012; Mertens, 2010), as many potential respondents as possible were targeted

in order to help ensure that a sufficient number of responses were received. While a sample size of 100 participants had been identified as the recommended minimum sample size for survey research (Fraenkel et al., 2012), given the large target population size, the validity of the findings could be increased through the inclusion of a larger sample (Creswell, 2009). For this reason, the research sought to access as many qualifying participants as possible by inviting teachers to participate using multiple methods, including emailing settings directly and by publicising the research on an organisation website (e.g. Childforum) and in an education publication (e.g. Education Gazette) (Appendix E).

For practical reasons 'Survey Monkey', a web-based survey programme (Survey Monkey, 2014), was used to run the survey. Demographic information was collected from the participants, including their age, gender and ethnicity, so that they could be described and to determine how reflective the received responses were of the target population (Mertens, 2010). This information was also used to identify any potential response bias (Creswell, 2009, 2012) and allowed for some comparisons to be made to the wider ECE population.

The survey was available online for six weeks (Appendix F), with 440 responses collected in total. Many of the responses were incomplete as some participants stopped responding early in the survey, along with clear drop out points at each of the open-ended questions and participants were able to choose not to answer particular questions. The decision was therefore made to remove responses from people who stopped answering at or before Question Nine of the survey. The first eight questions related to the participants themselves, their qualifications, roles and experiences meaning that it would be challenging to

describe the sample without these questions being answered. A total of 380 participants remained in the survey and the individual response rates for each question were reported in Appendix G. However this is a low number of responses given that 27,343 qualified and registered teachers work in teacher-led services (Education Counts, 2018b), with unknown numbers in parent-led services.

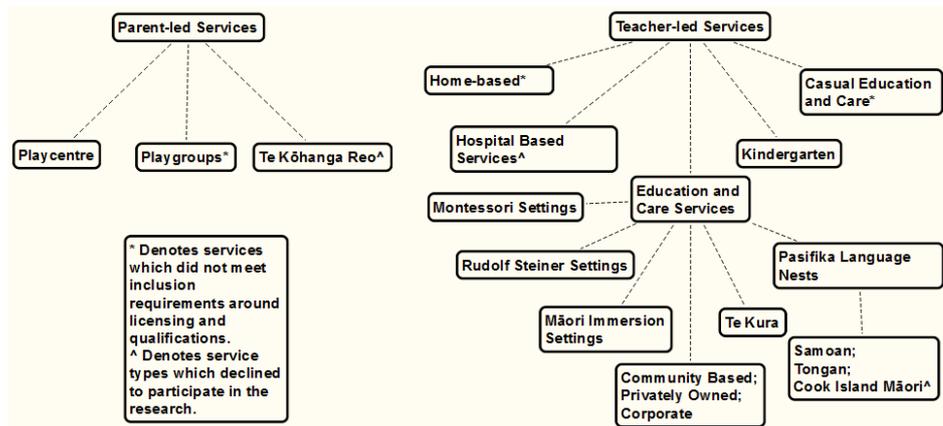
Because shorter surveys have been shown to have a higher response rate (Fraenkel et al., 2012; Mertens, 2010) care was taken to ensure that the number of questions asked was sufficient to gather the required information, but not so long that it became onerous or daunting for participants. A total of 33 questions were asked, with an additional optional open-ended question inviting participants to share thoughts relating to assessment which had not been covered in the survey. Six of the 33 questions were open-ended to enable respondents to explain in their own words (Nolan, Macfarlane & Cartmel, 2013) their knowledge and beliefs about assessment. The remaining 28 questions were closed-ended questions. Ten of these questions gathered demographic information and required respondents to choose the option which best described them or the setting in which they worked. One question asked the respondents to choose five words to describe their work environment from a list of 12. The remainder of the closed-ended questions used Likert-type scales where participants ranked items in an order of preference or selected their response from a continuum of responses (Ary et al., 2014). Likert-type scales are commonly used in education research (Punch, 2009) and explore the attitudes respondents hold in relation to particular statements or how often they engage in particular assessment practices (Fraenkel et al., 2012).

This survey gathered 440 responses, which represents an 18% return rate based on the number of email addresses to which the survey invite was sent. Given that there are more than 27,300 qualified teachers working in teacher-led services and additional teachers in the parent-led services, the return rate was in fact very low at less than 3% of those working in teacher-led services. The email invited the recipient to request other teachers in the setting to also take part in the survey, but it is impossible to know if this happened. Relying on contact information contained within the MoE database is somewhat problematic. Email addresses are for services rather than individual teachers, not all of the email addresses are current or accurate, and some emails are missing, meaning that the database is incomplete. The database is however currently the most accurate information source available to contact teachers through their service's listed e-mail, hence its use. Within larger organisations, particularly the corporate ECE services, the same email address was listed against a number of settings.

### **3.4.2 - Phase Two**

Key informant interviews with 14 teachers from 11 different licensed ECE service types located within the two closest provinces of my home, as shown in Figure 3.2, were undertaken in the qualitative phase to further examine teachers' purposes, practices and knowledge in more in-depth ways. Participants from the services within the two closest provinces were sought to minimise travel time and cost and to help ensure manageability of size of the data collection.

**Figure 3.2 - An overview of the Varying Service Types within the Research Region**



Interviews, as discussed earlier, were undertaken because they are a valuable tool for getting people to share their own thoughts and viewpoints, allowing researchers “to find out what people think and how the views of one individual compare with those of another” (Fraenkel et al., 2012, p. 451). An in-depth understanding of each interviewee’s purposes, practices and knowledge was sought in order to look for both variations and similarities between participants. The interviews ranged in length from 40 – 85 minutes, with an average length of 57 minutes, with each interview remaining tightly focused on the topic of assessment. Preliminary findings from the phase one survey were used to inform the semi-structured interviews in phase two, and will be discussed further later in this chapter when the data analysis processes used are explained.

Purposive sampling was used in order to identify key informants to interview who were representative of the wider population (Seidman, 2013). A stratified sample was also sought to help ensure that the phase two sample was reasonably representative of the sector composition and enabled participants from each service type to be included in “the sample in the same proportion as they exist in the population” (Fraenkel et al., 2012, p. 95).

In the case of this study the larger sample was broken down into the different types of ECE services in the research region, and a purposive sample was selected within each of these sub-groups to ensure that accomplished and experienced teachers were interviewed as key informants. The composition of the stratified sample is not entirely mathematically correct however. Despite making up a small proportion of the ECE sector, one participant from Te Kura was included in the study in order to represent the range of service types present in the region. Table 3.2 outlines the total number of each of the different ECE service types, the corresponding percentage of the sector which they comprise and the intended number of interviews to carry out in this study.

**Table 3.2 -Stratification of the Phase Two Key Informant Interviews**

Service Type	Total Number of Services	Percentage of Sector	Intended Number of Interviews	Actual Number of Interviews
Casual Education and Care <sup>a</sup>	9	0.2	0	0
Education and Care	2409	54.9	9	8
Kindergarten	652	14.8	3	3
Playcentre	427	9.7	2	2
Te Kōhanga Reo	450	10.3	2	0
Hospital-based	20	.4	1	0
Home-based <sup>a</sup>	417	9.5	0	0
Te Kura	1	.02	1	1
<b>Total</b>	<b>4385</b>	<b>99.82<sup>b</sup></b>	<b>18</b>	<b>14</b>

Note: <sup>a</sup> Interviewees from Home-based services and Casual Education and Care services were not sought during the interviews as these service types did not meet the study's criteria relating to qualification levels.

<sup>b</sup> The total adds up to 99.82% due to rounding error.

As shown in Table 3.2 the number of interviews actually carried out varied from what had been intended as willing participants from Te Kōhanga Reo and the Hospital-Based service could not be identified despite numerous attempts over a period of 10 months. Attempts to include interviewees from these service types were made by people with connections to the sector on my behalf, as well as emailing the services directly. While an interview with a teacher in a Cook Island setting was carried out, the interviewee later decided not to be included in the study.

The criteria for being ‘accomplished and experienced’ was that teachers had to have been teaching for more than five years and they were identified by those people recommending them for the study as being accomplished in regards to ECE assessment practices. Recruitment of interview participants were made at organisation level (e.g. to a Kindergarten Association) where appropriate (Appendix H), to ask permission to speak with teachers and to seek recommendations for teachers to approach. Where there was no overarching organisation overseeing the service, such as a standalone ECE setting, the individual setting was approached directly. Such settings were located by reading recent ERO reports to identify services that were deemed to be engaging in sound assessment practices. Leaders in the sector, including MoE funded ECE PD facilitators, staff within Initial Teacher Education programmes and people with connections to culturally diverse service types (e.g. Māori Immersion, Pasifika Language settings and Te Kōhanga Reo), were also approached, and asked to recommend services and teachers to contact, due to their well-established relationships and networks in the sector.

In the case of the culturally diverse ECE service types, the initial contact with the setting and potential participant was often brokered by the person recommending the participant. Doing so helped to establish relationships, which are fundamental elements of Māori (Bishop & Glynn, 1999) and Pasifika cultures (ERO, 2015a). One pre-visit took place, where I was taken to the prospective setting by someone who had an existing relationship with the team so that they could meet me face to face and ask questions about the research and what would be involved if they participated. In another case, a person with an existing relationship took me into the setting on the day of interview to

introduce me to the teachers, thereby helping to forge the relationship between the interviewee and myself. In another setting, a person who had an existing relationship with the setting asked if they would be interested in potentially participating in the study, and when they indicated this was the case, I then made contact with them.

Potential participants were contacted either by telephone, email or in person to discuss the research and their involvement, or the involvement of someone in their setting or organisation. During this initial conversation, relationships were established, and details about the research shared. If the potential participant was interested, the appropriate information sheet for teacher-led services (Appendix I) or parent-led services (Appendix J) and consent forms (Appendix K) were sent by email. Once the potential participant had indicated consent to proceed, and any necessary consent had been gained from the management of the centre (Appendix L), plans were made for the interview itself (Seidman, 2013).

The interviews undertaken were semi-structured, audio recorded and then transcribed in full by a contracted transcriber, who had signed a confidentiality agreement (Appendix M). The use of semi-structured interviews involved “developing a set of questions and format that you follow and use with all participants” (Lichtman, 2010, p. 141) but also allowed for follow up questions to be asked based on responses (Lichtman, 2010). The interview questions were guided by the findings of the preliminary analysis of the phase one data, the research aim and questions, the review of literature and my knowledge and experience related to the research topic. At the beginning of the interview each

participant was given a copy of the seven broad questions being asked (Appendix N) to help ensure that the same core information was gathered across all interviews. A set of more probing questions (Appendix O) had also been developed and were used to gather further information depending on the responses given and to clarify responses as necessary.

Demographic questions were asked at the beginning of the interview in order to provide information about the interviewee's workplace. Questions focused on the participant's knowledge, beliefs and opinions were then asked in order to develop a full and rich picture of the participant's views and practices relating to assessment. Field notes were written during and immediately after the interviews in an attempt to capture as much detail as possible about what happened during the interview (Nolan et al., 2013).

As part of the data collection process, interviewees were also asked to complete a paper copy of the phase one survey and to bring three pieces of anonymised assessment documentation relating to one four-year-old child to the interview. Completing the survey enabled collection of personal demographic data as well as further evidence of the interviewee's purposes, practices and knowledge to be gathered. The collection of this information also allowed for the interviewee's survey responses to be compared with those collected during the nationwide survey, looking for aspects of convergence and divergence. The demographic questions contained in the survey, along with the participant's responses to all of the questions, provided additional data about whether the interviewees were representative of the wider early childhood population.

Each interview began with a discussion of the assessment documentation which the interviewee had chosen to share in order to start with something familiar and non-threatening and as a way of stimulating recollection of their thought processes relating to the construction of the assessment documentation (Calderhead, 1981). Each piece of documentation brought to the interview was included as part of the data collection process as evidence of the interviewee's practices. In light of previous findings relating to a mismatch between teachers' actual assessment practices and their espoused theories (Stuart et al., 2008), the examples shared by the participants were an important part of the data collected because they provided examples of actual practices. Table 3.3 provides an overview of the research questions and the methods used to gather data relating to each of these questions. The two phases of the study involved the collection of a range of differing information, with the data gathered seeking to illuminate teachers' purposes, practices and knowledge.

**Table 3.3 -Overview of Methods Used to Address the Research Questions**

	Online Survey	Interviews	Interviewee's Survey	Document Analysis
<b>What do New Zealand early childhood teachers' believe are the purposes of assessing children's learning?</b>	Roles of Assessment Ways assessment data is used Perceptions	Roles of Assessment Ways assessment data is used Perceptions	Roles of Assessment Ways assessment data is used Perceptions	Evidence of purposes
<b>How do New Zealand early childhood teachers' assess four-year-old children's learning?</b>	Assessment methods Frequency	Assessment methods Frequency Self – reported descriptions of practice	Assessment methods Frequency	Shared examples of assessment to show practices
<b>What knowledge underpins early childhood teachers' assessment of four year old children's learning?</b>	Definitions Philosophy	Definitions Philosophy	Definitions Philosophy	

As noted earlier, Newby (2014) suggests that the organisation of and carrying out of key informant interviews can be a time consuming process; something which was found to be the case in this study. Interviews began in late October 2015 as the first candidates consented to participate. Recruitment was ongoing until November when it was suspended, due to end of year activities and a subsequent decline in consents. Recruitment and interviews resumed in January of 2016 and continued until July 2017 when the decision was made that willing interviewees from the remaining service types could not be located. Each of the interviewees was given a copy of the interview transcript and signed an authority to release the transcript (Appendix P), with one interviewee declining to have their data included in the study at this point.

### **3.5 - Legitimation**

The term legitimation has come to be used in the mixed methods literature to create a clear distinction from the terms traditionally associated with quantitative and qualitative research (Onwuegbuzie & Johnson, 2006). Legitimation is seen as a process for helping to ensure the integrity of the research in mixed methods designs. Onwuegbuzie and Johnson (2006) endorse using the term legitimation in order to provide a more neutral term that is suitable for both qualitative and quantitative researchers, and outline nine ways that legitimation can be enhanced within mixed methods research: sample integration; inside-outside; weakness minimisation; sequential; conversion; paradigmatic mixing; commensurability; multiple validities; political.

In the case of the current study, inside-outside legitimation was employed to ensure that the insiders, the participants, viewpoints were accurately presented alongside the outsiders, the researcher, viewpoint of the data. Weakness legitimation was also used, with the study specifically designed to minimise the weaknesses of any single research method by employing multiple, complementary methods. Conversion legitimation was also applied when qualitative data were quantified, by ensuring the data were appropriate for counting. Paradigmatic mixing legitimation was also utilised, whereby both qualitative and quantitative questions were asked within the survey as a means of gathering the data necessary to answer the research questions. Commensurability validity was also employed and involved both the qualitative and quantitative data being carefully considered in order to create a 'third viewpoint' based on the overall data. Finally, multiple validities legitimation was applied and involved attending to the legitimation of both the qualitative and

quantitative elements of the study, helping to ensure that the overall findings were heightened because of the attention paid to both elements.

The legitimization of the survey was enhanced in a number of ways. The survey was designed specifically for this study in order to help ensure that the questions asked related specifically to the research aim and questions. Along with the questions developed specifically for this survey, some questions from Mitchell's (2008b) study, along with questions from two more recent studies (Gunn & Gilmore, 2014; Hill et al., 2013) were also included. Using elements of an existing survey supported the efficient use of time during the survey development stage and also allowed for comparisons to be made with previous research. The survey was designed so that it could be completed anonymously, which can support participants to give more truthful responses to complex questions (Fraenkel et al., 2012). To encourage participation the survey questions were clearly worded, and worded in ways that supported the participants to believe that they had something meaningful to share (Cohen et al., 2011; Creswell, 2012). The survey was piloted with six early childhood teachers and researchers in order to check clarity, logic and flow with some small changes being made as a result of feedback received during the pilot. Piloting of the survey was carried out to help ensure internal consistency and construct validity (Mertens, 2015).

Several processes of legitimization were used to ensure the accounts reported accurately represent the participants' individual reality in relation to the research topic (Creswell & Miller, 2000), and not my own. Firstly, key informants were recommended by knowledgeable others, rather than being selected based

on my personal knowledge to help avoid potential bias. Care was taken to ensure that no leading questions were asked, and that my own tone and body language remained neutral and encouraging to avoid influencing or limiting participant responses (Seidman, 2013).

During interview transcription, pauses and laughter were included in order to capture as much of what was being said as possible, as well as any nuances. Transcripts were checked by me for accuracy, with comments being added relating to tone and timbre in order to more fully understand the meaning of the participant's words (Kvale & Brinkmann, 2009). For example, when participants had emphasised particular words or phrases these were underlined in the transcript to acknowledge the stress placed on the statement by the interviewee. Interview participants were also asked to check the transcripts providing the opportunity for respondent validation (Lincoln & Guba, 1985) and to add any thoughts relating to the topic following the interview. Audit trails of evidence (Cohen et al., 2011) were also kept so that data could easily be revisited.

During the data analysis specific attention was paid to identifying consistencies and variations between the interviewee's verbal responses and their paper based responses to the survey and the assessment documentation they had chosen to share. Triangulation undertaken in this way was an important tool in assessing the trustworthiness of responses (Creswell & Plano Clark, 2011; Greene, 2007). Interviewees' responses were summarised during the interview and any points requiring clarification were discussed at the time. Doing so allowed me to check that I was correctly interpreting their responses, whilst also

ensuring that accurate information was being obtained, both important elements of the interview process (Creswell & Plano Clark, 2011).

### **3.6 - Data Analysis**

Analysis of the data collected during both phases of the research involved the use of a range of both quantitative and qualitative data analysis methods, as well as mixed method analysis in which qualitative methods are used to analyse the quantitative data and vice versa (Creswell & Plano Clark, 2011).

#### **3.6.1 - Phase One**

A preliminary analysis of the survey data was undertaken. As each respondent replied to the survey they were attributed a respondent number from 1-440. These respondent numbers are stated at the end of any direct quotes from individual respondents in subsequent chapters. For the closed questions, this involved descriptive analyses and a review of the results in graphs generated by Survey Monkey. The open-end questions were thematically coded and the results from both question types were used to develop the questions used to guide the phase two semi-structured interviews. The sequential nature of the mixed method design of this study meant that data gathered during the qualitative interviews could be used to help explain the quantitative survey results in more depth (Klassen et al., 2012).

After the completion of phase two, the phase one data were revisited and analysed further. First the data were 'cleaned up' to remove responses from participants who had stopped responding at or prior to Question Eight. Closed response data were then analysed using the quantitative analysis programme,

Statistical Package for the Social Sciences (SPSS) version 22. The five open-ended questions asked within the survey were then analysed using thematic coding. Coding involved individual responses being grouped together in categories, based on common themes and recurring phrases, so that responses could be analysed (Denscombe, 2010; Nolan et al., 2013; Seidman, 2006). The coding process involved an inductive approach where, through being immersed in the data, it was possible to detect important and reoccurring themes and phrases within the data (Johnson & Onwuegbuzie, 2004) as the transcripts were repeatedly examined and interpreted.

Following coding, along with the thematic analysis where the meaning of the codes was considered in context (Joffe & Yardley, 2004), it was then possible to complete a content analysis and count the frequency of recurring themes and phrases which had been identified (Leech & Onwuegbuzie, 2011). Transforming the data in this way allowed for the application of quantitative analysis of the qualitative data that had been gathered by survey (Onwuegbuzie, 2003). Such analysis, referred to as cross-over mixed analysis (Onwuegbuzie et al., 2009), fosters increased integration of analysis methods.

Once all of the data were collated and ready for examination, a range of statistical analyses, including descriptive statistics were applied using SPSS. The analysis of the phase one survey data initially involved the generation of descriptive statistics. Descriptive statistics are those that are used to describe the responses to each question, along with information about data distribution and general trends. Descriptive statistics, according to Onwuegbuzie et al.

(2009), are able to enrich findings by providing detailed description of the survey participants and their responses.

While the number of responses was not large in comparison with the number of teachers in the sector, it was still possible to undertake a range of statistical data analysis to explore the relationships and differences between survey responses (Newby, 2014). The survey included a range of question types, including open-ended responses, as well as Likert scales and ranked response questions, which allowed for a variety of different statistical analyses to be used. The data generated through the application of descriptive statistical analysis were combined during this data analysis phase to support a detailed view of the data and to enhance confirmability and transferability (Onwuegbuzie et al., 2009). The findings reported in Chapter Four focus on the results of the descriptive analysis.

### **3.6.2 - Phase Two**

The transcription of the interviews was outsourced to help ensure the effective use of time. Following transcription, I then used NVivo, a computer software programme, to support the analysis of the qualitative data gathered during the interviews. Using NVivo, the data was thematically coded as nodes, along with the field notes that were made during and immediately after the interview. As previously describe in section 3.6.1, the phase two data was also coded through an inductive approach which sought to identify recurring themes and phrases within the data (Johnson & Onwuegbuzie, 2004). Examples of nodes/themes included beliefs about assessment, the communication of assessment, the negatives and challenges of assessment and transition practices. Based on the

themes that emerged, the data were then considered in new ways (Creswell, 2009; Goodwin & Goodwin, 1996) in order to identify patterns, alignments and divergences and to develop deeper understandings of the data. The interview transcripts were also saved as Word documents, so that searches for individual words or phrases could readily be carried out. The frequency with which words and phrases were used were then counted (Silverman, 2011). This application of descriptive statistics supported a more multifaceted analysis of the interview data through using both qualitative and quantitative methods of data analysis.

The 14 interviewees were all attributed a four-letter code based on their service type, as shown in Table 3.4. When more than one person was interviewed from a particular service type a number was also attributed based on the order in which the interviews were carried out.

**Table 3.4 -Overview of the Interviewee Codes**

<b>Service Type and Interview Number where appropriate</b>	<b>Interviewee Code</b>
Kindergarten 1	KGTN 1
Kindergarten 2	KGTN 2
Kindergarten 2	KGTN 3
Playcentre 1	PLAY 1
Playcentre 2	PLAY 2
Education and Care – Privately owned	PRIV
Education and Care – Community based	COMM
Education and Care – Corporately owned	CORP
Education and Care – Montessori	MONT
Education and Care – Rudolf Steiner	STEI
Education and Care – Te Kura	TEKU
Education and Care – Māori Immersion	MĀOR
Education and Care – Samoan based setting	SAMO
Education and Care – Tongan based setting	TONG

When quotes from the interviewees are included in the findings the following formula are used to acknowledge the source. The four-letter code will be stated first, followed by the page number from the corresponding interview transcript; and then the transcript line number. For example, PLAY 2, 7:31 would indicate

that the quote came from the interviewee at Playcentre 2, from page 7, line 31 of the transcript.

Phase two interviewees were asked to share three pieces of assessment documentation relating to one child that provided examples of their usual practices. These instructions were interpreted quite differently by some participants, with just seven of the 14 interviewees sharing the requested three documents. Two of these participants shared examples where there were two or more documents included within the same piece of assessment. In both cases more than one learning story was shared, but was considered by the interviewee to be part of the same assessment as they focused on the same area of learning and development. The remaining seven participants shared more than the three examples requested, ranging from four to 16 examples. A total of 88 pieces of assessment documentation were shared by the interviewees.

Content analyses of the assessment documentation shared by the interviewees was an important facet of the data analysis phase. The content of each piece of assessment documentation was reviewed, which involved examination of the content and what was communicated within the documentation (Fraenkel et al., 2012). The process of content analysis is similar to that of coding transcripts except that the categories are identified prior to the analysis and were based on existing knowledge. Additional themes and codes emerged as the analysis was completed, and supported the development of a rich and descriptive account of the document. Once again it was then possible to count the frequency of codes and themes and to apply descriptive statistical techniques.

### **3.6.3 - Data Mixing**

Key findings from the phase one and two data were then mixed in order to help answer the three research questions underpinning the study. The multi-layered steps of the analysis, as discussed in sections 3.6.1 and 3.6.2, meant that a range of data relating to teachers assessment purposes, practices and knowledge was collected. These data included both qualitative and quantitative survey results from respondents and interviewees, along with the interview findings and the examples of assessment documentation. Each of these data sets was then reviewed in relation to key findings, with findings from each being drawn upon to describe and provide evidence of teachers' purposes, practices and knowledge of assessment. During the analysis process, data that provided evidence of convergence and divergence from other data, was highlighted as a way of illustrating the breadth and depth of the data. Where convergence or divergence existed between the data sets, specific examples were used from the multiple sources to further strengthen the findings being reported.

### **3.7 – Limitations**

While this study is underpinned by constructionist and constructivist perspectives, as detailed in section 3.2.2, this was not without its challenges in regards to both data collection and data analysis. The constructionist and constructivist epistemologies are closely connected and recognize that knowledge is actively constructed by people as they engage with each other and the world around them (Carr & Kemmis, 1986). The constructivist underpinnings of this research foreshadow an emphasis on people and their active participation in the construction of knowledge. Therefore, paramount to the design of the study was the need to comprehend the participants'

understandings and to interpret these. With these underpinning epistemologies in mind, a number of specific steps were taken during both phases of data collection, such as the survey asking where respondents' knowledge of assessment had come from and about the role of mentoring in developing their understandings of assessment. The phase two interviewees were also asked how their assessment practices had changed over time as a way of exploring how their assessment knowledge had been constructed.

Despite these steps being taken, and survey and key informant interviews being chosen based on pragmatism and their ability to answer the research aim and questions, it must be acknowledged that other research methods would likely have supported a deeper level of exploration regarding how the participants' assessment purposes, practices and knowledge had been constructed. For example, using a survey did not allow for further questions to be asked or for clarification of points made within the open-ended questions (Fraenkel et al., 2012) which would have further aided the data analysis. During the semi-structured key informant interviews I was able to ask additional questions to clarify points made to aid interpretation of and analysis of the responses shared, but as the interviewer I had sought to remain neutral (Fraenkel et al., 2012). This meant that I did not contribute to the interviewees' construction of knowledge, which may have been the case had I chosen to use depth interviews or focus group interviews. Depth interviews look and feel like a conversation (Guest, Namey & Mitchell, 2013), meaning as the interviewer I would have had a more active role in the data gathering process and thereby the interviewees knowledge construction. Focus group interviews involve a small group of people being involved in a discussion on a particular topic (Guest et al., 2013)

and could have been used to explore how individuals and the team had constructed their assessment knowledge.

My increased involvement in the data collection process would likely have further influenced the data analysis process also as I would have been even more aware of how the participants had constructed their knowledge which would have further aided my interpretation of the data shared. It is important to note the limitations associated with the epistemological stance and research methods guiding this study, and the ways that these could have been further enhanced and strengthened. It is however also important to note that the study as it stands did seek to explore and interpret how the participants in both phases constructed their knowledge of assessment.

### **3.8 - Ethical Considerations**

Ethical concerns were an important consideration throughout the research process. A number of ethical issues were identified during the planning phase and steps were taken to minimise these, while further issues also arose during subsequent phases. Those identified prior to the research are discussed first, followed by those that arose during the study itself.

Three core principles in relation to ethics and research in education settings have been identified (Fraenkel et al., 2012). This involves ensuring that all participants are protected from harm, that the data gathered remains confidential, and that close attention needs to be paid to decisions about any potential deception of subjects. While deception was not a concern within this research, the first two principles identified needed to be taken into account.

Protecting all participants from harm is a core responsibility of the researcher (Creswell, 2009; Denscombe, 2010). While physical and emotional harm was highly unlikely given the nature of the research, it was essential that unforeseen harm was also considered, such as participants being identified. Gaining informed consent from all participants in the study was also critical as through the consent process prospective participants were given detailed information about the study, the purpose of the research, proposed timeframes, and what was likely to be required from them (Creswell, 2009). Participants were also made aware that they had the right to withdraw their data up to the end of data collection, should they wish to.

Careful attention was taken to maintain the participants' right to anonymity (Nolan et al., 2013; Punch, 2009) by ensuring that all participant identities were protected and kept private. Any identifying features of participants or the settings they taught in was not included in the descriptions of either the survey or the case study participants. All data collected was coded in ways that did not identify the original source, providing further protection against identification (Creswell, 2009). In terms of the survey, this was completed online and anonymously, though the researcher did check to ensure that no participant had named their service and the raw data was cleansed accordingly. The interview participants also completed a paper copy of the survey. Though this data was not anonymous, it did remain confidential, as it was being used as further evidence of the interviewee's purposes, practices and knowledge alongside the assessment documentation they shared and the interview itself.

In relation to the key informant interviews, the original copies of consent forms for both the organisation and the participant, were kept by the first supervisor in a locked filing cabinet, away from the data relating to that particular participant. The field notes, assessment documentation, audio recordings and paper copies of the survey relating to each interview were kept together and labelled 'Interview 1, Interview 2' and so on to ensure anonymity. A master list of participant names and the corresponding interview number was kept in an innocuously named computer file, separate from the interview file.

As previously acknowledged, transcription of the interview audio recordings was outsourced. Following transcription of the audio recordings each of the transcripts was checked against the original audio recordings before sending a paper copy of the relevant transcript to each interview participant. Interview participants were asked to review the transcript and to return a release of transcript form to the researcher to indicate it was a correct account of the interview and that their data could be included in the study. As stated earlier, at this point the teacher from a Cook Island setting chose to withdraw from the study.

The role and impact of the researcher was considered throughout, for, as McLachlan (2010, p. 95) states, "It's important to remember that all research involving people is subject to researcher effects". This included avoiding the use of leading questions, in both the survey and interviews (Seidman, 2013), and by ensuring that my body language and facial expressions remained neutral during the interviews. I am currently employed as a Senior Tutor within a University, meaning that some people may view me as an authority on the topic or as having

power within the interview relationship. However, this was minimised because there was no direct or existing relationship between the interview participants and myself. While I had previously met and worked alongside one of the interviewees, this was more than 13 years prior and there had been no contact between us in the intervening time, and so was not considered to have influenced the interviewee's responses. I had briefly met one of the other interviewees previously, but again this was not considered to be a direct relationship.

Some participants indicated that they were uncomfortable with being considered as an expert on the topic when they were not. In these cases, the notion of speaking with experienced and accomplished teachers in the sector to explore their purposes, practices and knowledge was reiterated. Other participants indicated that they saw me as an expert. In this situation the point was made that I am in no way an expert on the topic but rather someone with an interest in and questions about assessment. Doing so helped to ensure professional and equitable relationships were established between myself and the interview participants (Seidman, 2013). Interview relationships needed to be based on trust and mutual respect. Working to establish such a rapport also helped to ensure that accurate information was gained throughout the interview (Fraenkel et al., 2012).

Because the research involved interviewing people from different cultural backgrounds, including teachers from Māori and Pasifika backgrounds, it was critical that the interviews were carried out in respectful and appropriate ways. According to Kvale and Brinkmann (2009) cross-cultural interviewing can be

difficult because of the array of cultural factors which may affect the relationship, and because of differences around how language and gestures are used between cultural norms. In order to minimise such challenges the support of people with more knowledge of the participant's culture was sought from two academics within the University. Their roles include providing cultural support to University students and staff and both offered guidance and advice relating to interviewing people from Māori and Pasifika cultures.

The anonymisation of the assessment documentation, which teachers chose to share during the interviews, was an unanticipated ethical consideration. Despite all participants being asked to anonymise the documentation prior to the interview, a significant number of participants had not done so. In order to maintain the anonymity of both the interviewee and the child, each piece of shared documentation was checked as soon as possible following the interview and anonymised if necessary. This included covering the names of children, parents and teachers and in some cases covering photos that identified children.

### **3.9 - Summary**

This chapter has provided an overview of the research design underpinning this study. At an epistemological level, constructionism, constructivism and pragmatism provide the underlying theory of knowledge. The theoretical perspective of interpretivism has been used to explore how the study's participants have constructed their knowledge of assessing four-year-old children's learning. A mixed methods research design was developed to help facilitate the exploration of the complex and multi-faceted topic.

Phase one of the study involved the application of a nationwide survey, which was emailed to ECE settings asking for qualified and registered teachers to respond. The survey was predominantly quantitative, though some qualitative questions were also asked. Descriptive statistics were applied when analysing the data. Responses to open-ended questions were thematically analysed using an inductive approach.

Phase two of the study involved semi-structured interviews being carried out with 14 key informants, with the interview questions being influenced by the preliminary findings from phase one. Interview transcripts were thematically analysed, looking for alignment with and differentiation from the themes evident in phase one. The key informants also completed the phase one survey and shared examples of their assessment documentation as evidence of actual practices.

A range of ethical considerations were applied throughout the study, including the need to protect the study participants from harm and to maintain their anonymity. Cultural considerations, particularly in relation to the interviewees, were also applied and advice was sought from more knowledgeable others prior to carrying out interviews with Māori or Pasifika interviewees. Anonymising the assessment examples shared by the interviewees became another important ethical consideration to be undertaken by the researcher. Together, these steps sought to ensure that the research was undertaken in an ethically responsible manner. Chapter Four provides a mixed presentation of the findings from both phases of this study.



## CHAPTER FOUR - FINDINGS

Following an overview of the study participants, this chapter presents the findings from the present study. Findings related to the participants' assessment practices will be shared, including the assessment methods being used, participants' beliefs about varying assessment methods, time frames and barriers for completing assessment. The aspects of children's learning which are being assessed, practices for sharing assessment information with schools and barriers associated with doing so will also be outlined. The second section of the chapter reports the participants' beliefs about the purposes of assessment, with a focus on how assessment information is used. The final section of the chapter provides an examination of the participants' assessment knowledge and the potential barriers to knowledge development, paying attention to the sources of the participants' knowledge.

As discussed in Chapter Three, the response rate for each of the survey questions varied. To aid clarity, the response rate for each individual question has been included in Appendix G. Therefore, the findings shared in this chapter will refer to the percentage of respondents for each question, with *N* stated in the appendices. The highest response rate for a closed question was 379, while the lowest response to a closed question was 266, which was a subsection of a multifaceted question. It is worth noting that the next lowest response rate to a question was 283 responses. When looking at the open-ended question response rate a wider spread is evident, with 371 responses being the highest rate through to 206 as the lowest. Of note, the collection of 206 responses to one of the open-ended questions was somewhat of an outlier given that the next lowest response rate for an open-ended question was 297 responses.

Eighty-four respondents chose to respond to a final optional question. Response rates for individual questions are stated only when less than 300 responses were received. The participants who participated in the phase one survey are referred to as respondents, while the phase two participants are referred to as interviewees. The term participant will be used when referring to the study as a whole.

#### **4.1 - Participants in Each Phase of the Study**

Information about the participants themselves will now be outlined. To avoid repetition and to enable comparisons between the participants in each phase of the study, data relating to the two groups are presented at the same time and in two sections. First, the participants themselves and data relating to their gender, age and ethnicity are reported, along with information relating to their qualifications, teaching experience and current role. Following this, data relating to the participants' workplace is shared.

The first phase of the study involved teachers from both teacher-led and parent-led services who responded to an online survey. Of the 440 responses gathered, 380 of these were included in the final data set. Fourteen key informant interviews were then carried out in phase two of the study. Because phase two involved a smaller group, the small sample size has the potential to create exaggerated differences between the participants in the two phases. Nevertheless, it is worthwhile considering the similarities and differences between the groups to help explain the responses gathered during each phase.

#### 4.1.1 - Demographic Information Relating to the Phase One and Two Participants

The demographic data relating to the respondents and interviewees, as shown in Table 4.1, showed some similarities and some differences between the phase one and phase two participants. Key points relating to this data will be discussed, with particular attention paid to similarities between the two groups and with the education sector as a whole.

**Table 4.1 -Demographic Data Responses from Phase One and Two as a Percentage**

		Phase One Respondents	Phase Two Interviewees
<b>Age</b>	Under 30	7	7
	30-39	21	29
	40 - 49	38	14
	50 - 59	28	36
	60 and over	6	14
<b>Gender</b>	Male	4	0
	Female	96	100
<b>Ethnicity<sup>a</sup></b>	New Zealand European	83	79
	Māori	11	29
	Asian	3	0
	Pasifika	2	14
	Other	9	0
<b>Highest Qualification Held<sup>b</sup></b>	Playcentre Qualification	5	7
	2-year Diploma of Teaching (ECE)	6	0
	3-year Diploma of Teaching (ECE)	17	21
	Bachelor of Education (Teaching) (ECE)	38	43
	Bachelor Degree (Other discipline)	2	0
	Graduate Diploma of Teaching (ECE)	11	7
	Post Graduate Level Qualification	11	7
	Other	10	14
<b>Year of Qualification<sup>b</sup></b>	1966 - 1985	10	7
	1986 - 1995	18	17
	1996 - 2005	34	25
	2006 - 2015	39	50
<b>Number of Years Teaching</b>	10 or less	44	50
	11 - 20	33	29
	21 - 30	17	21
	31 or more	6	0
<b>Current Main Role</b>	Co-ordinating Supervisor	5	7
	Supervisor	12	14
	Head Teacher	32	29
	Assistant Supervisor	3	0
	Teacher/Educator	33	21
	Other	15	29

Note: <sup>a</sup>Respondents were able to identify more than one ethnic group with percentages therefore adding up to more than 100%

<sup>b</sup>Total adds to 99 or 101 due to rounding error

According to the MoE's (2014b) census summary report, 98% of the qualified teachers working in teacher-led services in 2014 were female. The gender make-up of the survey respondents was a fairly accurate representation of the sector itself, with 96% of the respondents ( $N = 296$ ) being female, while all 14 of the interviewees were female. Information relating to the age of teachers in the ECE sector is not available, so comparisons to the wider population cannot be made. Some differences in the ages of the participants are evident across the two phases, with the phase two respondents tending to be older. This could be because experienced and accomplished teachers were sought as interviewees, with the small and purposive sample also likely to contribute to the differences.

The MoE's (2014b) annual census summary indicated that 71% of ECE teachers identified as European/Pakeha, 9% as Māori, 11.5% as Asian, 7% Pasifika, 2% other and 1% not stated. The survey results from this study therefore include a higher response rate from New Zealand Europeans, Māori and Other, while the response rates from Asian and Pasifika teachers are lower than would be expected. The majority of interviewees also identified themselves as being New Zealand European, with 11 of the 14 doing so. The interviewees were a more homogenous group from a cultural perspective than the phase one respondents, but this is likely due to the smaller and purposive sample.

A Bachelor of Education (Teaching) (ECE) was the most commonly held qualification across both phases, followed by a 3-year Diploma of Teaching. The phase one category of 'Other', at 10%, included those holding the Te Kōhanga Reo's qualification and respondents who, for the most part, did fit within the categories offered. In phase two, one of the Playcentre respondents held a

Bachelor of Education (Primary) as well as a Playcentre qualification, with the time of completing the Playcentre qualification being noted. The interviewee from the Samoan based ECE also held a Primary Teaching qualification, and a more recently completed Graduate Diploma of Teaching (ECE). The interviewee from the Tongan based setting did not hold an ECE qualification.

A substantial proportion of the participants had completed their teaching qualification in the previous 20 years. Phase two explicitly sought interviewees who were accomplished teachers with five or more years' experience. All but one interviewee, from the Tongan based setting, fit these criteria. The Tongan based interviewee had worked in ECE for four years, though had a long-term involvement with the setting and had taught in the primary school sector.

Just over half of the survey respondents held leadership positions within their setting as head teachers, supervisors, coordinating supervisors and assistant supervisor, and 33% identified themselves as being Teacher/Educators, and 15% indicating 'Other'. Analyses of descriptions given for 'Other' revealed a small number were Relievers or Parent Educators in Playcentre, with the majority being Owners, Managers or holding other leadership positions with differing titles from those available in the survey. This means that the proportion of responses from those in leadership positions was in fact higher than initially indicated. When looking at the interviewees' main role in the setting, six of the 14 indicated they held leadership positions, and three indicated Teacher/Educator. Again, a number indicated 'Other' and then described other leadership terms, meaning that the total in leadership positions rose to 10 of the 14.

#### 4.1.2 - The Participants' Settings

Although Kindergartens made up 15% of the ECE sector in 2015 (Education Counts, 2018a), 33% of the responses came from those working in Kindergartens. As shown in Table 4.2, responses from those working in Te Kōhanga Reo were significantly lower than expected given the percentage of the sector they comprise. Responses from those in Playcentre were also slightly lower than expected. The response rate from those working in the Education and Care sector was fairly well aligned with the proportion of the sector that they comprise.

**Table 4.2 -Percentage of Response from the Service Types evident in the ECE Sector**

**Table 1 – Percentage of Responses from the Service Types evident in the ECE Sector**

Service Type	Percentage of Survey Responses	Percentage of Sector <sup>a b</sup>
Playcentre	8%	10%
Te Kōhanga Reo	1%	10%
Kindergarten	33%	15%
Education and Care	57%	55%
Correspondence School	1%	<1%
Hospital-based	0%	<1%
Home-based <sup>c</sup>	N/A	9%
Casual Education and Care <sup>c</sup>	N/A	<1%

Note: <sup>a</sup> Percentages relate to the composition of the sector in the year that data were collected (Education Counts, 2018b)

<sup>b</sup> The total adds up to 99% due to rounding error

<sup>c</sup> Responses from Home-based services and Casual Education and Care services were not sought during the survey as these service types did not meet the criteria relating to qualification levels.

Because the Education and Care sector brings together a diverse range of service types, this section was broken down further to show the parts of the sector the respondents came from, as depicted in Table 4.3. Publically available information from the MoE does not differentiate to this level of detail, so comparisons cannot be made.

**Table 4.3 -Percentage of Respondents from Education and Care Settings by Service Type**

<b>Education and Care Service Type</b>	<b>Percentage of Overall Respondents</b>
Education and Care – Privately owned	28
Education and Care – Community based	19
Education and Care – Corporately owned	3
Education and Care – Montessori	3
Education and Care – Rudolf Steiner	<1
Education and Care - Māori Immersion	<1
Education and Care – Te Kura	1
Education and Care – Samoan Language Nest	1
Education and Care – Cook Island Māori Language Nest	<1
Other	2

The largest sub-group of responses came from respondents in Privately owned services (28%), followed by Community based (19%). The response rate from those working in Corporately owned services was lower than expected (3%), given that five of the 10 largest providers by funding received were Corporately owned in 2016/2017 (Bell, 2017). The lower response rate may have been caused by confusion about the terms Privately owned and Corporately owned, which were not specifically defined in the survey. No responses to the survey were gathered from teachers working in Hospital-based services, or Tongan, Niuean, Fijian or Tokelauan Language Nests.

A stratified sample of the ECE sector was used to determine the phase two interviewees. Three interviewees were sought from kindergartens, two from Playcentres and one each from the following Education and Care services types: Privately owned, Community based, Corporately owned, Montessori, Rudolf Steiner, Māori Immersion, Te Kura, a Samoan based setting and a Tongan based setting.

Just 1% of respondents indicated they were working solely with four-year-old children, with 33% with 3-5 year olds, 32% with 2-5 year olds, and 31% with birth-5 year olds. The remaining 3% of respondents were working with children aged 1-5 years. In comparison, none of the interviewees worked with only four year olds, 14% with 3-5 year olds, 43% with 2-5 year olds, and 28% with children aged birth-5 years. Both of the Playcentre based respondents changed the survey to indicate working with children aged Birth-6 years.

When asked to choose up to five descriptors which best described their current work environment from a list of 12 terms, the vast majority of respondents chose positively focused terms such as being open to new learning, collaborative, reflective and rewarding. In comparison, the more negative terms of overwhelming, low morale, high staff turnover and uninteresting were indicated by less than 7% of respondents. The interviewees' responses were similarly positive. It is worthwhile noting that the interviewees completed a paper-based version of the survey. This meant that the interviewees' responses were readily identifiable, which may have impacted on their willingness to share negative responses. The majority of the interviewees were also in leadership positions, meaning that if things were not going well in the setting they were responsible for driving change and they were perhaps unwilling to share this was the case.

In the next section the phase one and two findings will be outlined, starting with the assessment practices reportedly used by the participants. The findings relating to their beliefs about assessment practices and the purposes of

assessment follows, before findings associated with the participants' knowledge of assessment are shared and an overall summary given.

## **4.2 - Assessment Practices**

The mixed method design of this study provided opportunities for participants to share their purposes, practices and knowledge in relation to assessing four-year-old children's learning. Key aspects addressed by participants were the assessment methods used, the frequency various methods were used, the use of learning stories, the typical timeframes for completing assessment documentation, and beliefs about assessment methods. As noted in Chapter Three, the survey was adapted from an existing survey (Mitchell, 2008a). For the purpose of consistency, the original language of the survey was maintained and is used in this chapter, despite its imprecise nature. For example, photographs were listed in the survey as being an assessment method, when they are typically considered a tool for collecting assessment information. The use of such terminology will be critiqued in Chapter Five.

### **4.2.1 - Methods of Assessment**

Survey responses from the respondents and the interviewees, along with the assessment examples shared by the interviewees, indicated that teachers are using a range of methods to collect assessment information. These methods have been broken down into two categories: formal and informal, as shown in Table 4.4. Formal methods were classified as those organised and planned for ahead of time. Informal methods were classified as those which occurred in the moment, as teachers noticed and documented what was happening. Photographs, audio and video recordings have been included as informal

methods because of the ready access that most teachers have to such equipment, meaning they are often used in reaction to something that occurs rather than in a planned way. Of note, these categories are consistent with those outlined in the revised version of *Te Whāriki* (MoE, 2017a), where both informal and formal assessment are acknowledged.

For the most part alignment is evident between the phase one and phase two findings, though interviewees reported more use of time samples, event recordings, running records, own tests and discussion with outside professionals. Interviewees indicated using conversations with children, examples of children’s work, and audio recording less frequently than the respondents. These variations may be due to the smaller phase two sample size and the different assessment methods associated with different service types.

**Table 4.4 -Percentage of Respondents and Interviewees Using Formal and Informal Assessment Methods**

<u>Formal Methods</u>	Percentage of Phase One Respondents	Percentage of Phase Two Respondents	<u>Informal Methods</u>	Percentage of Phase One Respondents	Percentage of Phase Two Respondents
Time Sample	60	85	Conversations with Children	95	85
Event Recording	70	90	Consultation with Parents/Whānau	99	100
Running Record	65	74	Discussion with Outside Professionals	96	100
Scatterplot/ Sociogram	24	27	Discussion amongst Educators	100	100
Incident/ Frequency Sample	63	60	Anecdotal/ Informal Observations	97	100
Published Test	9	9	Examples of Children’s Work	100	92
Published Checklist	19	9	Photographs	100	100
Own Test	27	36	Audio Recording	60	36
Own Checklist	40	45	Video Recording	80	75

Note. Percentage of survey respondents indicating use of the assessment methods once a year or more often. Percentages above 50% are in bold and percentages between 20-50% are shown in italics.

#### **4.2.2 - Use of Informal Assessment Methods**

The majority of survey respondents and interviewees indicated using informal methods to collect assessment information, as shown in Table 4.4. Ninety five percent (95%) or more of the respondents used all but two of the informal methods -- audio recording and video recording -- at least yearly. The same pattern was evident with the interviewees, though a smaller number (85%) reported using conversations with children as an assessment method. While the number of survey respondents using audio recording and video recording was lower, at 60% and 80% respectively, this was still high when compared to the percentage of respondents using formal methods.

Respondents indicated that the majority of informal methods were used on a weekly basis. As displayed in Table 4.5, six of the nine methods were reported as being used weekly by 61% or more of the survey respondents. Seventy one percent (71%) or more of the interviewees indicated five of those six methods. Of note, 96% of respondents and 93% of interviewees signalled that they use photographs as an assessment method at least once a week, and all respondents and interviewees indicated that they used photographs within a three-month timeframe.

**Table 4.5 - Percentage of Phase One Survey Respondents and Phase Two Interviewees Reporting Frequencies of Use of Informal Assessment Methods**

	Once a Week		2 – 4 Weeks		3 Months		6 Months		Once a Year		Never		Missing*	
	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two
<b>Conversations with Children</b>	<b>61</b>	<b>50</b>	<i>21</i>	<i>7</i>	<i>6</i>	<i>7</i>	<i>5</i>	<i>7</i>	<i>2</i>	<i>7</i>	<i>5</i>	<i>14</i>	<i>4</i>	<i>7</i>
<b>Consultation with Parents/Whānau</b>	<b>76</b>	<b>79</b>	<i>15</i>	<i>7</i>	<i>5</i>	<i>7</i>	<i>2</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>4</i>	<i>7</i>
<b>Discussion with Outside Professionals</b>	<i>13</i>	<i>0</i>	<i>29</i>	<i>21</i>	<i>30</i>	<i>21</i>	<i>15</i>	<i>29</i>	<i>9</i>	<i>0</i>	<i>4</i>	<i>0</i>	<i>9</i>	<i>29</i>
<b>Discussion amongst Educators</b>	<b>86</b>	<b>86</b>	<i>11</i>	<i>7</i>	<i>2</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>7</i>	<i>7</i>
<b>Anecdotal/Informal Observations</b>	<b>69</b>	<b>86</b>	<i>18</i>	<i>7</i>	<i>7</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>3</i>	<i>0</i>	<i>7</i>	<i>7</i>
<b>Examples of Children's Work</b>	<b>72</b>	<b>71</b>	<i>19</i>	<i>7</i>	<i>8</i>	<i>7</i>	<i>&lt;1</i>	<i>0</i>	<i>&lt;1</i>	<i>0</i>	<i>0</i>	<i>7</i>	<i>3</i>	<i>7</i>
<b>Photographs</b>	<b>96</b>	<b>93</b>	<i>3</i>	<i>0</i>	<i>&lt;1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2</i>	<i>7</i>
<b>Audio Recording</b>	<i>13</i>	<i>0</i>	<i>15</i>	<i>7</i>	<i>12</i>	<i>0</i>	<i>12</i>	<i>14</i>	<i>8</i>	<i>7</i>	<i>40</i>	<i>50</i>	<i>14</i>	<i>21</i>
<b>Video Recording</b>	<i>23</i>	<i>14</i>	<i>26</i>	<i>21</i>	<i>15</i>	<i>7</i>	<i>11</i>	<i>7</i>	<i>5</i>	<i>14</i>	<i>20</i>	<i>21</i>	<i>12</i>	<i>14</i>

Note. Percentages above 50% are in bold and percentages between 20-50% are shown in italics.

\* Denotes percentage of survey respondents who did not include a response in relation to the particular assessment method, but who had included a response for alternative methods.

Discussion amongst educators (86% in both phases) and consultation with parents/whānau (76% of respondents and 79% of interviewees) were also reported as being used weekly by a large number of respondents, and used at least every three months by over 90% of the participants. The survey did not ask what was discussed within these interactions, but based on statements made in the interviews it is likely to include what children have learned, gathering information about what has happened at home, children's interests and the sharing of potential planning for future learning. For instance, when discussing consultation with families, COMM explained that it involves:

*lots of feedback from what they're doing at home, and so then that makes an understanding of ....what learning they're bringing with them from outside environments, what other cultural components they're bringing with them, and then that can completely effect where we might go next (COMM, 6:5).*

Discussion amongst educators was similarly described as:

*We have a lot of conversations between all of the teachers on a daily basis saying 'have you noticed this?', 'what shall we do about this?', and is generally recorded in the individual planning (MONT, 1:6).*

The assessment examples shared by interviewees provided clear evidence of their using informal methods to collect assessment information. All of the interviewees shared at least one piece of documentation that included photographs. Of the 88 examples provided, 60% were, or included,

photographs. Evidence of informal methods included conversations with children and consultation with families being included in the assessment documentation. Statements within the examples, such as those made below, provide examples of children's and families' perspectives being included in the assessment documentation:

*I asked him 'What are you doing?', 'I'm making a book.... and writing the words' (KGTN 2, Example 1, Document 7); and*

*XXXX often sees the river when we drive over the bridge to go and see my parents... (CORP, Example 3)*

TEKU, as a distance education provider, relied heavily on information shared by families, as was evident in the fact that eight of the nine examples shared contained information that came directly from the families.

However, limited evidence of discussion amongst educators was apparent in the assessment examples shared. In the two cases where such collaboration was evident, it was not included as part of the original assessment documentation. For example, within the documentation shared by KGTN 2, learning stories written by other teachers were read as part of the planning for the focus child. Feedback from other team members was apparent via comments made on the documentation shared by KGTN 1 once it had been uploaded online. No reference was made to discussions with outside professionals in the examples shared, although MONT and COMM both talked during their interviews about seeking support from occupational therapists in relation to children's physical

development. The documentation shared by SAMO included an analysis of a video recording. Six specific examples of children's work, or work samples, were also shared – all by SAMO. Many of the photos included in the assessment documentation showed examples of children's work.

When explaining how they believe four-year-old children's learning should be assessed, 18% of the respondents ( $N = 297$ ) noted observation in their description. It is likely that the majority of respondents meant informal observation, as 10% of the respondents used the words 'informal' or 'informally' in their response to this question, and respondents usually named specific formal observation methods when referring to a formal method. Some survey respondents noted their belief that informal observations alone were appropriate, making statements such as:

*informal observations but not checklists* (Respondent 398); and

*Mostly through informal observation and communication with the child...* (Respondent 436).

Nine of the interviewees also talked about observing children informally and the assessment examples provide evidence of such practices being undertaken by using phrases such as:

*Over the last few weeks I have enjoyed watching you...* (MĀOR, Example 2).

#### **4.2.3 - Use of Formal Assessment Methods**

Formal assessment methods were infrequently used by the survey respondents.

The most frequently reported timeframe for using all but one of the formal assessment methods (own tests) was Never, as shown in Table 4.6.

**Table 4.6 -Percentage of Survey Respondents Reporting Frequencies of Use of Formal Assessment Methods**

	Once a Week		2 – 4 Weeks		3 Months		6 Months		Once a Year		Never		Missing*	
	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two	Phase One	Phase Two
Time Sample	4	7	6	0	12	21	13	14	25	29	<b>40</b>	14	13	7
Event Recording	9	7	9	0	13	14	14	21	25	29	<b>30</b>	7	13	21
Running Record	13	14	12	14	11	0	12	7	17	14	<b>35</b>	<b>29</b>	13	21
Scatterplot/Sociogram	1	0	4	7	3	0	5	14	11	0	<b>76</b>	<b>57</b>	16	21
Incident/Frequency Sample	2	0	9	0	13	14	14	7	25	21	<b>37</b>	<b>29</b>	15	29
Published Test	1	0	<1	0	1	0	1	7	5	0	<b>91</b>	<b>71</b>	16	21
Published Checklist	1	0	2	0	4	0	4	7	8	7	<b>81</b>	<b>71</b>	16	21
Own Test	7	14	6	0	4	0	4	7	6	7	<b>73</b>	<b>43</b>	16	21
Own Checklist	9	21	10	0	6	14	7	7	8	21	<b>60</b>	<b>43</b>	15	21

Note. Percentages above 50% are in bold and percentages between 20-50% are shown in italics.

\*Denotes percentage of survey respondents who did not include a response in relation to the particular assessment method, but who had included a response for alternative methods.

Running records were the only formal assessment method reported as being used weekly by more than 10% of the survey respondents, and were also the most frequently used in a 2–4 week timeframe. More than 10% of the interviewees however reported using running records, as well as their own tests and checklists on a weekly basis. Some explanation for the limited use of formal assessment methods was shared in the Phase two interviews. In particular, the time that it takes to carry out formal assessments was identified as a barrier:

*....and to be honest I don't have a lot of time to do things like running records and time samples in session because I don't often get time to literally go and get a piece of paper and write it down (PLAY 2, 2:24).*

Other interviewees also indicated that formal assessments were only undertaken when teachers had concerns about a child:

*..... however, if there are particular areas that we believe need closer assessing, looking at, observing, then that may be a time sampler or one of the other ways of doing it (STEI, 10:17).*

Amongst the assessment examples shared by the interviewees there was no evidence of published tests being used. SAMO did however include a published list of developmental milestones used as an informal checklist, while MONT shared three checklists relating to the child's progress with letter sounds, mathematics and the Montessori apparatus.

In response to the open-ended question about how four-year-olds should be assessed just 2% of respondents noted time samples, with less than 1% noting running records, and none referring to event recordings. None of the assessment documentation examples shared by the interviewees included evidence of or reference to information gathered through these types of formal observations. The assessment examples shared by STEI, as shown in Image 4.1 were somewhat similar to a running record, with photographs added, in that they included detail about what a child was doing over an extended period. Three interviewees, PLAY 2, STEI and COMM, indicated that formal observations, such as time samples, were only used when they had concerns about a child and wanted more specific information about aspects of learning.

Image 4.1 -Assessment Example from STEI

Page 1

The Journey into Life ... developmental steps.

Date: Wednesday 10<sup>th</sup> June 2015

Time of day: 10.30am to 11.20am

Child's name: *Sofia, Olivia, Cassia, Charlie*  
 4.7yrs, 3.3yrs, 3.1yrs, 3.3yrs

Observer: *Tracy, Tracy*

**A moment in time ...**

Today was a beautiful late autumn day and after morning tea the children were at play in the garden. As I *was* walking into the garden I saw a group of children gathering materials and setting up equipment to build with.

The children were making an airplane on the concrete area. *Olivia* was the pilot at the front. The passengers all found their seats.

*Olivia*: Ready to take off?



*Olivia*: Yes!

Page 2

*Olivia*: "Airplane going fast."

*Charlie*: "My holiday is not far."

*Olivia*: "Hey can you get off the wing."

*Olivia*: "I am going to walk to my holiday, it's not very far."

*Olivia*: got off and went to the bark area near the lower sandpit.

*Olivia*: "This is Taupo."



*Olivia*: "Holiday to northland."

*Olivia*: also got off the plane and went to Northland, which was the stone area.

*Olivia*: "Come on the airplane."

*Olivia*: was hanging the washing on the line.

*Olivia*: "I'll come soon".

*Olivia*: called out "where are you sitting on the plane".

*Olivia*: came back to see *Olivia*.

*Olivia*: "Oh we didn't have any petrol."

*Olivia*: "I'm only going to Taupo."

*Olivia*: "Taupo"

Page 3



The children got off the airplane and went down to the lower garden and Olivia carried on sitting on the airplane.

*Olivia*: "Look at me *Olivia* (Olivia making a plane noise)." *Olivia*

*Olivia* came over and sat on the airplane.

*Olivia*: "Look you don't sit on the wing. You sit on here on the seat", showing *Olivia*.

*Olivia*: "The plane bleed, go get a plaster now it's getting another bleed." started to fix the plane then was distracted by a fartal which was flying around close by.

*Olivia*: "Look a Tail *Olivia*."

*Olivia*: "Is that a Tail?"

*Olivia*: "That's a phleka-waka, a fartal".

*Olivia*: "Oh"

Then went to see what the other children were doing in the lower garden.

*Olivia*: "Children learn through play - by doing, by asking questions, by interacting with others, by setting up theories or ideas about how things work and trying them out, and by the purposeful use of resources" (Ministry of Education, 1996 p.82)

Reference: Ministry of Education, Te Whāriki (Te whāriki mātauranga mō ngā mokopuna o Aotearoa: Early Childhood Curriculum, Learning Media, Wellington, 1996.

Of note, between 13% and 16% of the survey respondents did not indicate their use of formal assessment methods, as shown in Table 4-3 in the column titled 'Missing'. The rate of non-response for the formal assessment methods was higher than that for the informal methods. One of the interviewees did not respond to this survey question, and interviewee non-response rates were also higher for the formal assessment methods.

#### **4.2.4 - Learning Stories**

Writing learning stories was the most commonly identified use of assessment information gathered about children. Using assessment information in this way was indicated as occurring weekly by 75% of respondents and less than 1% indicated that they did not use assessment information in this way. Learning stories were also the most commonly mentioned specific approach when respondents articulated their beliefs about how four-year-old's learning should be assessed. Whilst 27% of respondents specifically used this terminology, a further 4% noted using narrative assessment methods, which learning stories are a form of. Statements such as the following provided evidence of the value respondents placed on learning stories:

*I believe that the learning story format is the best form of assessment for young children (Respondent 189).*

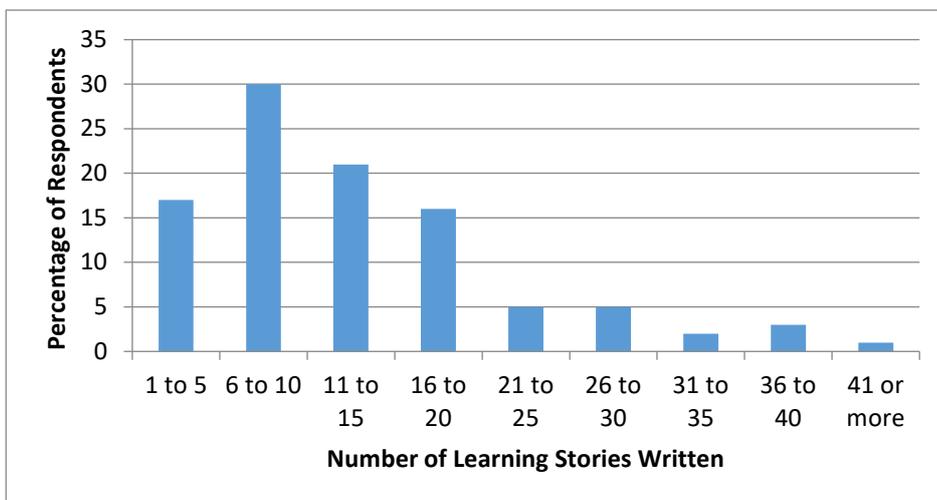
A small number of respondents did however indicate that they were less positive about using learning stories:

*I think learning stories have had their day (Respondent 193); and*

*I disagree with learning stories because I feel that even though they cover significant learning, it is such a small snap shot of time.....*  
(Respondent 259).

Respondents were asked to specify the number of individual, rather than group, learning stories they had written in the last four weeks of teaching (see Figure 4.1). The results show that 30% wrote between six and ten learning stories during the last four weeks of teaching, while 21% wrote 11 to 15. Eighty-four percent of the respondents reported that they had written between 1 and 20 learning stories in the previous four weeks, meaning an average of just over three learning stories were reportedly being written per week.

**Figure 4.1 -Percentage of Survey Respondents Indicating Number of Learning Stories written in the last Four Weeks**



Of the 88 assessment examples shared during Phase two, 48 (54%) were learning stories. For the purposes of analysing the assessment examples shared, the title of 'Learning Story' was defined as a narrative with photo(s) that includes Carr's (1998a; 2001) elements of 'Notice' and 'Recognise'. If these elements were not present then the documentation was classified as an anecdotal observation. Some of the interviewees, or their settings, had applied their own

terminology to what could be considered learning stories. The Rudolf Steiner based interviewee called their interpretation of learning stories ‘A Moment in Time’ (see Image 4.1). In the Tongan setting the title ‘Observations’ was used, as shown in Image 4.2, while the Māori Immersion setting had developed ‘Paki Ako’, as shown in Image 4.3, a translation of the term learning story. These examples were classified as learning stories in the data analysis due to their content.

**Image 4.2 -Assessment Example from TONG**

<b>OBSERVATIONS</b>		Goals: Ke mahino'i 'ehe fanau 'a e mahu'inga 'o e mata'i fika mo hono lahi 'o 'ikai lava peke lau 1-10 ka kenau 'ilo'i 'a e mahu'inga 'o e 1-10.	
NAME:			
DATE: 16/09/2015			
<p><b>Learning Stories:</b> 'I he 'emau taimi fika na'e ako'i ai 'a e lau 'o e 1-10, pea mau sio ki he tohi 'o e ngaahi mata'i fika. Na'e fiema'u ke mahu'inga 'a 'a e fanau 'i he mata'i fika pea na'e tuku ai 'a e fanga ki'i kaati na'e tohi ai 'a e ngaahi mata'i fika pea fekau kenau ngaue 'aki 'a e fanga ki'i va'a kau ke lau fakatatau hono lahi ki he mata'i fika 'oku nau fili.</p>		<p><b>Link to Te Whariki:</b></p> <p>Contribution-Goal 2: A realistic perception of what they know and of what they can and cannot yet do.</p> <p>Communication- Goal 1: Responsive and reciprocal skills, such as turn taking and offering.</p> <p>Exploration- Goal 1: The ability to make decisions, choose their own materials and set their own problems.</p>	
			
<p><b>Child Development:</b></p> <p>Na'e fu'u tokanga 'aupito 'a ki he activity he 'oku ne 'osi lava pe 'o lau 'a e 1-10. Na'e ki'i faingata'a 'a 'i he taimi na'e pehe atu ai ke ne fili mai 'e 3, mahino mai 'oku te'eki ke lava he'ene fakakaukau 'o fakapapau'i pe 'oku fefe 'a e mata'ifika koe 3. 'E hoko atu pe hono fakalotolahi'i 'o kene sio mo tohi 'a e mata'i fika.</p>		<p><b>Extended Lesson:</b></p> <p>Using some their favourite things to count with. Making up the numbers to 20. Adding objects together.</p>	

Image 4.3 -Assessment Example from MĀORI

July 2016



Sharing the love:

Kia ora

I have often observed your pleasure when you run, jump, climb, throw, tumble, roll, crawl, or pedal your way through the day. Your smile, squeals and laughter when engaging in physical activities planned or otherwise, is always a source of delight to you. Today I didn't need to remind you about inside play because you remembered all by yourself and got busy playing with everything with wheels. Tau ke e tama.

I noticed that you looked over at pepe who was having tummy time and you showed concern that she didn't have any toys to play with. You looked at me and asked 'what the bubu play with?' When I said that she was happy watching you, you pondered for a while and then reached over to give her some of your favourite toys. Pepe smiled at you and then you got up off the floor and brought other toys for her to play with.

I thought this was huge shift in your thinking T as in the past I have observed that you have a very definite perception and understanding of "mine," but today you eagerly and willingly shared your taonga. Often you find sharing and turn taking challenging particularly if you believe the process is not going to end in your favour. Your, actions today showed that by allowing you time and space you are willing to negotiate on your terms. With affirmation and assurance from me your confidence grew. So awesome !

Kaiako need to watch for and support you through this learning e tama until you become more confident and competent at following this process on your own. Kia kaha e

I think mama will be pleased to know how really hard you worked this morning because one of her aspirations for you is that you learn to share. I celebrate you I know how hard you have been working at learning the tikanga of the whare, and how to remember them all the time. You showed Manaakitanga, Aroha, Kaitiakitanga, Whakawhanaungatanga side today nurturing and upholding pepe's mana.

Nga mihi ki a koe e tama mo to whakaaro rangatira, mo to aroha ano ki tetahi atu.

Tau ke ake koe e tama.

Yours in partnership my friend,  
whaea

Of the 48 learning stories shared by the interviewees, 56% included the headings of 'Notice, Recognise and Respond', or associated derivatives such as 'What learning happened?', 'Where to next?'. However, as indicated in Table 4.7, the elements of 'Notice, Recognise and Respond' were evident even when headings had not been used. Twenty-one of the learning stories contained information relating to the elements of 'Notice and Recognise', while 27 integrated information relating to 'Notice, Recognise and Respond'.

**Table 4.7 -Overview of the Assessment Examples Shared by Phase Two Interviewees, including the number of Learning Stories and use of 'Notice, Recognise and Respond'**

	Total number of Assessment Examples Shared	Number of Learning Stories <sup>a</sup> Included	Use of 'Notice and Recognise' and 'Notice, Recognise and Respond'	
			N & R	N, R, R
KGTN 1	7	6	5	1
KGTN 2	10	8	5	3
KGTN 3	3	3	2	1
PLAY 1	3	3	1	2
PLAY 2	3	3	0	3
TEKU	9	0	0	0
PRIV	11	6	3	3
CORP	4	4	0	4
MONT	9	1	0	1
STEI	4	4	4	0
COMM	3	2	0	2
TONG	3	3	0	3
SAMO	16	2	1	1
MĀOR	3	3	0	3
<b>Total</b>	<b>88</b>	<b>48</b>	<b>21</b>	<b>27</b>

Note. <sup>a</sup> Learning stories were classified by the researcher as a narrative with photo(s) that includes Carr's elements of 'Notice' and 'Recognise'

Only one interviewee, TEKU, did not include a learning story within the assessment documentation shared. As explained, because Te Kura is a distance education provider:

*... our assessments are atypical because, they are information which is communicated directly by the family or the supervisor to us ....and we then build our assessments from those communications. .... Supported by samples of work, direct communication with children, or photo or video evidence (TEKU, 1:27).*

While the information described could be used to write a learning story, as stated, learning stories were not amongst the assessment examples shared by TEKU. SAMO and MONT both communicated the view that assessment needed

to be undertaken in a range of ways. Two of the 16 assessment examples shared by SAMO, and two of the nine shared by MONT, were learning stories.

Interviewees who articulated a belief that children lead their own learning were less likely to include notice, recognise and respond in the assessment documentation they shared. For example, of the six learning stories shared by KGTN 1, just one of these included the three elements of 'Notice, Recognise and Respond'. Such practices aligned with their expressed belief that children drive their own learning and that teachers therefore do not need to plan explicitly for learning:

*They are the facilitators of their own learning - they have an intrinsic drive to do so (KGTN 1, 21:5).*

STEI articulated similar views, and none of the four pieces of assessment documentation shared included the 'Respond' element. In comparison, all three of the examples shared by TONG and all four of those shared by CORP were learning stories, and each included the three elements of 'Notice, Recognise and Respond'. Based on the perspectives and examples shared by the interviewees, clear philosophical decisions were made about the information included within, and the focus of, the learning story.

#### **4.2.5 - Timeframes for Completing Assessment Documentation and Time Barriers**

Respondents indicated substantial variability in the usual timeframe for completing assessment documentation. Only 7% of the respondents indicated that they completed the assessment documentation on the same day that the

information was gathered, with 26% taking a week and 19% indicating that it took them a month or longer to complete this task. Overall, the results show a wide spread in the length of time respondents take to document the assessment information they gather about children.

When asked to explain the reasons for the time period they had indicated, a number of causes were articulated. Those taking a week or less sought to ensure that they were able to remember the details of the event, to keep up to date with documentation, and to share documentation in a timely way. As noted by someone who usually completes the assessment documentation within one week:

*I think one of the biggest challenges is to keep the learning stories current for the child and everyone involved in the child's learning*  
(Respondent 15).

Another reason given for completing the documentation within a week was so that the information could be used to inform teachers' responses to and planning for children:

*... so you can move onto the where to next part and have that documented when it happens* (Respondent 185).

When exploring the reasons why some took longer than a week to complete assessment documentation time, specifically the lack of it, was a significant factor:

*Learning stories can be so time consuming to write (Respondent 257).*

Time was also needed to gather information, discuss with others, collect photographs and then write up the documentation. Some also noted their centre's management requirements, with documentation being checked by another team member before it is shared, added further time to the process. Insufficient non-contact time was another reason given to explain the timeframe indicated, and will be explored later in this chapter. Respondents acknowledged that there was:

*too much paperwork and not enough time (Respondent 112),*

whilst being aware that:

*assessment is very important however the time restraints are huge (Respondent 271).*

A lack of time was identified as the barrier having the most impact on teachers' ability to assess children's learning. When ranking five potential barriers to assessing learning, 43% of respondents ranked 'time to assess children's learning' as the barrier having the most impact, while a further 43% ranked 'non-contact time to complete assessment documentation' as the biggest barrier. These findings were also repeated elsewhere in the survey as 'time to assess' and 'non-contact time' were ranked as the second biggest barrier by 33% and 28% of the respondents respectively. Just 7% indicated 'time to assess' was the barrier having the least impact, while only 2% of respondents indicated that this

barrier was 'Not applicable' to them. These results consistently demonstrate the significant impact time has as a barrier for teachers' ability to assess children's learning.

Within responses to the open-ended questions, very few specific statements were made about respondents having a lack of time to assess children's learning. Some interviewees, e.g. PLAY 2, did note using photographs as an assessment tool because they took less time than written observations. The amount of non-contact time respondents had to complete assessment documentation was identified as a substantial barrier, with 71% ranking it as having the most or second most impact. Just 5% indicated non-contact time as having the least impact, and 3% said it was not applicable, indicating that for most participants time was a significant barrier.

Frequent reference was made to the lack of non-contact time to prepare assessment documentation within the open-ended questions. The words 'non-contact' were used by 24% of respondents when explaining why they usually complete learning stories in the timeframe they had indicated, with the vast majority indicating that they had to wait for their non-contact time. Non-contact was often scheduled, with some signalling that this happened daily, while for others it was weekly, fortnightly and sometimes longer. Other staff being away sick or other events such as excursions were noted as negatively impacting on respondents being able to take their non-contact time. Other tasks that needed to be undertaken during non-contact time, such as internal evaluation, meetings, planning for excursions, also competed with time for assessment documentation.

Interviewees were explicitly asked about the allocation of non-contact time. While COMM and SAMO indicated that they had approximately four hours of non-contact per week, TONG indicated that staff in her centre had one hour per week and MĀOR shared that as a leader she was better at ensuring the teachers received their non-contact time than taking her own. Half of the interviewees made specific reference to completing assessment documentation outside of paid work hours. For example:

*We take laptops home and we do work at home, and then we find out we're nearly at burnout (KGTN 2, 18: 8),*

while another shared that they will:

*write these stories at midnight if I want to (PLAY 1, 12:18).*

PRIV, on the other hand, revealed that teachers in her setting were not allowed to complete learning stories outside of paid work hours. In contrast, STEI indicated that

*the practitioners don't have non-contact time... they are paid for their study time at home, for the preparation of their 'Moments in Time', and any other work that they have to do (STEI, 15: 34).*

The completion of assessment documentation outside of paid work hours was also evident within the survey responses. Using phrases such as completing assessment documentation in their own time, at home, at the weekends or in

the evenings, 13% of respondents, when explaining why they usually complete learning stories in the timeframe that they do, indicated that they did so outside of work hours. For example:

*Only have time to do these stories at home (Respondent 6), along with:*

*If they are not completed at work they must be done at home”*  
(Respondent 99), and:

*At my centre we get one hour per week to complete stories. However, I will stay behind after work to complete if needs, and will get some down at lunch time too (Respondent 100).*

Overall, it appears that a considerable amount of assessment documentation is taking place outside of work hours.

#### **4.2.3 - What is Being Assessed**

Information outlining the aspects of children’s learning being assessed by the participants in this study was gathered by analysing the information gathered from three sources: responses to three open-ended survey questions; the points of view expressed by the interviewees; and the assessment examples shared by the interviewees. The findings showed evidence of two foci in terms of the learning being assessed in ECE: 1) strengths, interests and dispositions; and 2) development, learning outcomes, skills, knowledge and working theories. These two foci will now be discussed.

#### 4.2.5.1 Strengths, interests and dispositions

The need to focus on children’s strengths, interests and dispositions was evident across the data sources. These three aspects featured in the survey responses, as shown in Table 4.8, with children’s interests being the most commonly used term.

**Table 4.8 -Percentages of Phase One Survey Respondents Referring to Strengths, Interests and Dispositions within Three Open-ended Questions**

	Strengths <sup>b</sup>	Interests	Dispositions
What comes to mind when you hear the word ‘assessment’? (N = 371)	11	22	16
Why, or not, is the assessment of four year olds important? (N = 307)	12	24	8
How should four year olds’ learning be assessed? (N = 297)	7	17	9

Note. Percentages between 20-50% are shown in italics.

<sup>a</sup> Percentages were calculated by counting the number of respondents who had specifically used these terms within their open-ended responses to the stated questions. Respondents may have indicated none, one, or any combination of these terms in their responses, thus percentages do not sum to 100.

<sup>b</sup> The term ‘credit based’ was included within strengths

Almost a quarter of respondents indicated that children’s interests were an aspect to consider when asked why, or why not, assessing four year olds learning is important. Identifying children’s strengths, or applying a strengths-based lens, was often mentioned, alongside focusing on children’s interests, though not as frequently as interests alone. For example, when explaining how they believed learning should be assessed:

*...through a holistic, achievements based system such as learning stories in a portfolio to show positive achievements based on the child’s strengths and interests (Respondent 28).*

When answering the survey, interviewees gave similar responses. Five of the interviewees noted interests, while four referred to assessing children's strengths. Applying a strengths-based lens to assessment was also discussed in the interviews:

*I believe in looking at what children can do and building on that if it's necessary, or just celebrating that as much as needed (PLAY 1, 4:40).*

While the majority of the interviewees applied this focus, MONT, SAMO and TONG also referred to using assessment to establish what children could not yet do. MONT, in the survey and interview, made it clear that she and her colleagues did not see the wider ECE sector's focus on children's interests in a positive way:

*Assessment should not just be about assessment around aspects of their interests but learning things in preparing for school..... (MONT, Survey Question 34).*

In their survey responses, three of the interviewees identified dispositions within the three open-ended beliefs related questions. During the interviews, seven of the interviewees made reference to dispositions, including all three kindergarten based interviewees and both interviewees from Playcentre. Dispositions were also referred to by a number of respondents, as Table 4.5 displays. For some, children's dispositions were the most important focus of assessment:

*Assessment should be done firstly on dispositions* (Respondent 92); and

*DISPOSITIONS, DISPOSITIONS, DISPOSITIONS!!!* (Respondent 292).

A small number of respondents did however acknowledge that assessing children's dispositions is difficult:

*I just don't get how you can accurately assess a 'disposition'?*

(Respondent 193).

Such comments demonstrate the challenges which some respondents can experience in relation to assessing children's dispositions to learning.

#### **4.2.5.2 - Development, learning outcomes, skills, knowledge and working theories**

Survey respondents also articulated beliefs about the need to focus on children's development, learning, skills, knowledge and working theories through the assessment process. As shown in Table 4.9, assessing children's development and their skills were the most commonly referred to aspects of what to assess, while learning outcomes and working theories were noted with less frequency.

**Table 4.9 -Percentage<sup>a</sup> of Phase One Survey Respondents Referring to Development, Learning Outcomes, Skills, Knowledge and Working Theories within Three Open-ended Questions**

	Development	Learning Outcomes	Skills	Knowledge	Working Theories
What comes to mind when hear the word 'assessment'? (N = 371)	16	4	14	11	2
Why, or not, is the assessment of four year olds important? (N = 307)	20	1	18	8	<1
How should four year olds' learning be assessed? (N = 297)	10	<1	10	5	0

Note: Percentages between 20-50% are shown in italics.

<sup>a</sup> Percentages were calculated by counting the number of respondents who had specifically used these terms within their open-ended responses to the stated questions. Respondents may have indicated none, one, or any combination of these terms in their responses, thus percentages do not sum to 100.

When discussing how four year olds should be assessed, a focus on assessing children's skills was also evident. Some respondents noted specific skills, such as gross and fine motor, social, writing, self-help and cognitive skills, but for the most part these skills were not specified. Children's skills were also a focus for the interviewees, with eleven making explicit reference to children's skills. During the interview PLAY 1 made 21 references to children's skills, with a focus on independence skills and social skills. SAMO, by comparison made 12 references to skills, with two of these referring explicitly to literacy skills. Children's skills were also referred to nine times by COMM, with four of these being to physical skills and foundation skills twice because:

*we view it as the important things to support them with before transitioning to school, is their foundation skills, not so much their academic learning (COMM, 5:4).*

As depicted in Table 4.9, the respondents referred to children's working theories and learning outcomes with less frequency, with no more than 4% of

respondents referring to these aspects in any of the three open-ended questions. This lack of emphasis was also apparent in the interviewees' survey responses, with none referring to either working theories or learning outcomes. Analyses of interview data revealed none discussed working theories, although two interviewees, TEKU and PRIV, mentioned learning outcomes. When describing their summative reporting system TEKU noted that learning outcomes were included within their system. PRIV made three references to learning outcomes, noting the inclusion of robust learning outcomes within the planning so that:

*at the end of the day they do have robust learning outcomes for their interests (PRIV, 12:32).*

#### **4.2.6 - Summary**

The participants in this study reported engaging in a range of assessment practices, with a strong focus on using informal methods to gather assessment information. The predominant use of informal assessment methods is underpinned by the participants' beliefs about the various assessment methods available to them, as well as their philosophical beliefs about assessment. The participants indicated a number of barriers impact the assessment process, with time to assess and document children's learning being particular barriers. The findings of this study suggest that the participants focus on assessing children's strengths, interests and dispositions, while other aspects of learning such as development, learning outcomes, skills, knowledge and working theories are paid less attention within the assessment process.

### **4.3 - Beliefs about Assessment and its Purposes**

This section will firstly explore respondents' and interviewees' beliefs about assessment, focusing on some of the contradicting beliefs about assessment which were shared, followed by findings relating to the respondents' and interviewees' beliefs about the purposes of assessment.

#### **4.3.1 - Contradicting Beliefs about Assessment Practices**

In an open-ended survey question respondents explained how they believe four-year-old children's learning should be assessed. This section primarily focuses on reporting the findings of the 297 responses received to this question, along with beliefs shared by the interviewees and evidence from the assessment documentation examples. The responses to this question will be compared with responses to closed questions that explored similar aspects of assessment. Findings relating to the participants' beliefs about using photographs, video and audio as methods for collecting assessment information will be specified, along with their beliefs about including information shared by children and their families. Knowing children well was identified as a key belief by a number of respondents; so the findings relating to this will be reported, along with respondents' mixed views related to using formal assessment methods. This section will conclude with the findings relating to the barriers relating to assessment methods identified by the research participants.

##### **4.3.1.1 - Photographs, video and audio**

Using photographs as an assessment method was mentioned by 14% of respondents in their responses to the open-ended question. This response is lower than expected, given that 96% of respondents had indicated in a closed

question that they were using photographs once a week to gather information about children's learning. All of the interviewees, however, made reference to using photographs to document children's participation and learning. Statements such as those below give insight into the ease and value that interviewees see in using photographs as an assessment method:

*Like I said before, .... we're big on the cameras.... which is easier for us, the anecdotal things that we do (SAMO, 12:35); and*

*And the photos are so rich, and just showed the delight and joy... (KGTN 3, 21:23).*

When looking at the assessment examples shared by interviewees, photographs are particularly evident with all interviewees including at least one assessment example that included photographs.

#### **4.3.1.2 - Information shared by children and their families**

Although responses to closed questions had indicated that discussion and collaboration with children, families and teachers was occurring frequently, the same emphasis was not apparent in the responses to the open-ended question being discussed. Specific reference was made to including the child's voice by 13% of respondents to the open-ended question. Statements such as the following were indicative of teachers' beliefs:

*allows them to voice their interests, comment on what they enjoy or what they find difficult (Respondent 143).*

Two of the interviewees referred to the child's voice within assessment, with KGTN 1 placing particular emphasis on this aspect of assessment. For her, unless the child's voice was gathered, the teachers' opinions had to be relied upon and assumptions are potentially made about the child's thinking and potential learning:

*start looking at children's voices first, rather than last (KGTN 1, 2:12).*

When looking at the assessment examples shared by the interviewees, just three of the 88 examples included examples of children's own voices. This finding may provide evidence of differences between the interviewees' espoused versus actual practices in that while the interviewees reported being aware of the importance of including the child's voice within the assessment process, their evidence of their actual practices did not frequently include this element.

Some interest in using formal assessment methods was also expressed within the survey responses given by the interviewees. While PRIV acknowledged that she did not believe enough ECE teachers use formal assessment methods, TONG voiced their belief in assessment being carried out formally:

*in the form of a checklist and a written report on their achievements*  
(Survey Q.24).

Both SAMO and MONT indicated that the assessment of four year olds should involve more than completing learning stories. As SAMO explained:

*What we find is that the learning story is not the be all of it. .... But it's not the only thing for us at this centre. We rely on lots of different things (SAMO, 25:18).*

#### **4.3.1.3 - Knowing children well**

While not an assessment method itself, 'knowing children well' appeared to be an important factor in the assessment process for study participants. When explaining how they believe four-year-olds should be assessed, knowing children well was noted by a small number of respondents as they described what came to mind when thinking about the word assessment. Nine of the fourteen interviewees also made specific reference to knowing, or needing to know, children well as part of the assessment process. Such a view was articulated by KGTN 3, who stated that:

*Knowing the children is a big part. What's important to them at the time. What's important to their family (KGTN 3, 4:37).*

STEI talked about knowing children intimately, while both PLAY 1 and PLAY 2 acknowledged that they knew more because they were assessing their own child. MONT shared her belief that:

*I personally think that we know our children incredibly well (MONT, 14:45).*

While interviewees did not specify how they came to know children well, this was clearly important to them.

#### **4.3.1.4 - Mixed opinions regarding using formal assessment methods**

A small number of survey respondents disclosed their belief that formal assessment of four year olds should not be undertaken. While just 3% of the survey respondents indicated that they saw no place for formal assessments, tests or checklists in ECE, when these views were shared, they were very firmly articulated:

*I do not believe in checklists or testing for four year olds (Respondent 358); and*

*NOT formal checklists – comparing children is mostly unhelpful (Respondent 386).*

Further evidence of such beliefs was provided when respondents were asked to explain their beliefs around why, or why not, assessing four-year-old children's learning is important:

*I don't believe assessment testing or tick sheets to find out what children can't do is necessary for four-year-old children (Respondent 362).*

Avoiding the use of 'tick boxes' or checklists was also stated by other respondents, as these statements suggest:

*I am totally against formal tick box assessment" (Respondent 92); and*

*No tick boxes (Respondent 399).*

Further evidence of such views was also evident when respondents ranked from strongly agree to strongly disagree, whether they believed standardised tests are a valid form of assessment. Less than 1% ( $N = 290$ ) of respondents to this question strongly agreed with this statement, with 30% disagreeing and 40% strongly disagreeing.

Although none of the respondents acknowledged using tests within the open-ended question, 2% did refer to checklists in their statements. When tests were mentioned, it was to indicate the belief that they were not an appropriate assessment method. Such views were made clear via statements such as:

*I see no room for standardised tests (Respondent 255).*

Some respondents were more open to the use of checklists however:

*I'm not averse to teachers having robust discussion to form checklists to target specific behaviour/learning outcomes either, .... (Respondent 280).*

For some, checklists were an opportunity to be aware of gaps in children's understanding and knowledge. Others noted a place for formal assessment, particularly if there were specific concerns.

#### **4.3.1.5 - Beliefs about barriers related to particular assessment methods**

A range of beliefs about barriers associated with particular assessment methods were shared across the study, including the range of assessment tools and

strategies available to teachers. Access to appropriate assessment tools/strategies was ranked as having the third, fourth or least impact on teachers' ability to assess children's learning by 87% of the survey respondents. However, those who gained their initial teaching qualification between 1966-1985 were the most likely to indicate this was the barrier of least impact, perhaps suggesting that over time they have been exposed to a broader range, or that they were taught about a broader range of assessment tools/strategies within their initial qualification. Respondents holding a GradDipTchg (ECE) or a PostGraduate Qualification were however less likely to state this was the barrier with the least impact, at 14% and 10% respectively, while 35% of respondents with a 2 Year Diploma and 30% of those with a BEd (Tchg) (ECE) identified this was the barrier having the least impact. Such findings may suggest that those with higher qualifications are applying a more critical lens to the assessment tools/strategies available to them. Of note, 13% of respondents indicated that this barrier was not applicable to them, the highest response across the five potential barriers, potentially indicating that these teachers are happy with the tools and strategies currently available.

During the interviews, TONG talked explicitly about there not being a range of suitable assessment methods in comparison to the primary school sector, and indicated that they would like to be able to compare children:

*With the early childhood there's nothing to compare them..... There's not a framework that you can put a dot here and say 'this is where this child is, and compared to other kids her age, and this is what she should know'. And there's nothing that says 'By the end of kindy your child*

*should be able to count from one to ten, your child should be able to hold a pen properly, should be able to write their names'. You know, those are things that we just make up (TONG, 12:23).*

MONT and SAMO had developed other assessment tools and strategies from those usually used in ECE, such as checklists, to assist them in assessing children's learning. These findings suggest that it was important for the interviewees that they had culturally and philosophically relevant assessment tools available to them.

#### **4.3.2 - Beliefs about the Purposes of Assessment**

Survey respondents and interviewees both signalled that the assessment information they gathered, and the resulting documentation, served a number of purposes. Purposes included sharing information with children and families, planning for children's future learning, monitoring children's progress, as well as sharing with outside agencies and with primary schools. Some of the participants in this study considered assessment a waste of time. These findings, along with the purposes of assessment and the frequency assessment information is used to fulfil these roles, are all discussed in this section.

##### **4.3.2.1 - Sharing assessment information with children and families**

Sharing assessment information with children and families was viewed as a key purpose of assessment. For example, 35% of respondents reported that the most important purpose of assessment was giving feedback on learning to children, with 29% indicating that sharing children's learning with their families was the most important purpose.

Using assessment information to give feedback to children at least once a week was indicated by 67% of respondents, while 74% signalled they provided feedback to families in the same timeframe. Seventy-five percent of respondents also indicated they use assessment information to write learning stories at least once a week. Learning stories were seen by some as something which children could look at themselves, giving them feedback on their learning and development.

*It is a form of feedback that children are able to access for themselves and a record of their learning that they can keep and treasure in the longer term (Respondent 348).*

Keeping the documentation free of jargon and using photographs were two strategies used to meet the needs of the audience:

*Lots of photos with a few words to tell the stories. We write for children and their families.... (Respondent 133).*

Of the 88 assessment examples shared by the interviewees, 22 of these were written to the child.

As shown in Table 4.10, several methods were used to share information with families. Informal contact with families was reported as occurring at least weekly by 95% of the respondents, with 55% reporting the weekly sharing of portfolios. When asked about ways parents and whānau were involved in the assessment process, parents were reported to have ready access to children's

portfolios at least weekly by 92% of respondents. Taken together these findings suggest that portfolios are used as a way of communicating children’s learning with families, although informal contact and discussions were much more frequently used.

**Table 4.10 - Percentage of Survey Respondents Indicating Varying Frequencies of Communicating Children’s Learning with Families**

	Once a Week	2 – 4 Weeks	3 Months	6 Months	Once a Year	Never	Not Applicable
<b>Informal Contact</b>	<b>95</b>	<b>4</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;3</b>	<b>0</b>	<b>&lt;1</b>
<b>Formal Discussions</b>	<b>13</b>	<b>17</b>	<b>21</b>	<b>19</b>	<b>8</b>	<b>12</b>	<b>10</b>
<b>Portfolios</b>	<b>55</b>	<b>26</b>	<b>15</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>Reports</b>	<b>11</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>7</b>	<b>25</b>	<b>22</b>
<b>Other</b>	<b>41</b>	<b>6</b>	<b>13</b>	<b>2</b>	<b>8</b>	<b>4</b>	<b>26</b>

Note. (N = 339). Percentages above 50% are in bold and percentages between 20-50% are shown in italics.

Reports and formal discussions were used less frequently, if at all, to share information with families. Reports providing a summary of children’s progress, were the least frequently used method of communicating with families, with 25% never using this method, and 22% indicating the method was not applicable. Formal discussions were used more frequently than written reports, though significantly less than informal communication methods. Formal discussions, based on the descriptions given by some respondents, were seen as being pre-arranged meetings that occurred when teachers or parents had concerns about children or in conjunction with Special Education (SE). While 13% reported engaging in formal discussions with families weekly, 12% acknowledged that they never did so, and 10% indicated that the method was not applicable.

Of note, 41% of respondents indicated that they were using ‘Other’ methods to communicate children’s learning with families weekly or more often. The

explanations provided of these methods show the impact of technology on the ways information is shared with families. References were made to using email, Facebook, phone calls, Skype and blogs, as well as electronic portfolios (ePortfolios) such as StoryPark and Educa. Five of the interviewees indicated they were using ePortfolios, while another was regularly using Facebook to share children's learning with families. With just under half of the interviewees using online tools to communicate children's learning with families it appears that online methods are becoming increasingly popular.

#### **4.3.2.2 - Planning for future learning**

Assessment information was reported as sometimes being used to plan for children's ongoing learning and development. Using assessment information to develop a programme for a group of children was the most frequent use of the information gathered in relation to planning, both in terms of those using it weekly (34%) or every 2–4 weeks (49%). Developing programmes for individual children followed closely behind at 33% and 43% respectively for the same timeframes. Meanwhile using assessment information to develop plans for individual children, with the term being associated with children receiving support from SE, was stated as occurring weekly or more often by 26% of respondents, and every 2–4 weeks by 38%.

Some of the interviewees talked explicitly about using assessment information to plan for supporting children's needs, such as:

*... he was still retaining some of his primitive reflexes.....so we've just been focusing on his physical skills, so setting up lots of fun experiences for him (COMM, 2:44).*

To plan the programme for children, TONG stated that she first sought to assess children's current knowledge and abilities in relation to specific goals, taken from *NZC* and *Te Whāriki*. MONT expressed that individual plans were developed for children based on the learning stories in their profiles and the checklists that the setting had developed for the Montessori apparatus and focus.

Other interviewees indicated that planning was more focused on responding to children's interests. For example, the assessment examples shared by KGTN 2 contained seven pieces of documentation, which she considered to be one assessment example. The interviewee had noticed the child's interest in literacy, and along with team members, had planned specific opportunities such as sharing her laptop, visiting the local library, providing opportunities for him to write his name and supporting him to publish a book:

*He kept coming back to it, he kept revisiting it ..... after the learning story had been done. And at the planning [meeting] we talked about our strategies, how we responded to him (KGTN 2, 2:15).*

KGTN 2's beliefs about planning contrast with those shared by KGTN 1, as previously shared in section 4.2.1. KGTN 1 sees her role as being responsive to children:

*...because the philosophy of our kindergarten is that we value children's choices, and our kids know 'if you want something, just ask'. So there was no need for us to set things up. And I think historically planning's been about that (KGTN 1, 6:37).*

Further evidence of such views was provided when five of the seven documents shared by KGTN 1 related to the child's interest in making watches, what she did and how the teachers responded to her requests. While the elements of 'Notice' and 'Recognise' were evident, there was no 'Respond' section or reference made to what teachers might do next in order to support that interest.

A number of respondents noted the need to complete learning stories quickly to ensure the learning being documented was current and could be used to inform planning. For a respondent who indicated that they usually completed learning stories within a week, doing so helped keep the:

*learning fresh, to the for-front for planning and up to date for the families/whānau (Respondent 399).*

Nevertheless, only 8% made reference to completing learning stories in the timeframe that they did in order to inform planning for the child.

#### **4.3.2.3 - Monitoring children's progress**

Less than half of the respondents indicated they used assessment information to monitor children's progress. When ranking five possible main purposes of assessment, monitoring children's progress was indicated as being the fourth

most important purpose by 36% ( $N = 288$ ) of respondents. However, in response to a different question, 47% indicated that they used the assessment information gathered about children once a week to monitor progress, with a further 37% indicating this occurred every 2-4 weeks. As shared by one respondent:

*Assessment is essential to the teaching professional at all levels as it is how we monitor progress, potential areas of growth, plan, and reflect on our practice (Respondent 388).*

If teachers are indeed using assessment information to monitor children's progress this frequently, it is somewhat surprising that it was ranked as being the fourth most important purpose of the five options available.

Further evidence of respondents' beliefs about using assessment information to monitor children's progress was provided when rating — from strongly agree to strongly disagree — a number of statements about their assessment beliefs. When asked whether they believed that by using assessment information they can track children's progress, 32% ( $N = 291$ ) strongly agreed and 39% agreed. In response to whether they used assessment information to determine if children have met developmental milestones, 8% of respondents strongly agreed and 35% disagreed. Of further note, 44% of the respondents strongly agreed and 50% agreed that assessment helps teachers to identify the particular learning needs of any child. The respondents appeared to be more comfortable with using assessment information to identify learning needs than for determining whether developmental milestones had been met. Considering that learning

needs are usually identified because children are not reaching developmental milestones, these findings suggest that philosophical, ideological or theoretical beliefs may impact on how assessment information is being used to monitor children's progress.

Six of the 14 interviewees also used the word 'progression' when asked what they believed was the purpose of assessment. SAMO shared that she believed that:

*it's really critical for a teacher to know where the child is at ..... in all areas of the strands of Te Whāriki (SAMO, 17:17).*

Similar views were expressed by MĀOR who spoke about using assessment to be able to see:

*where the child is sitting on the continuum of learning (MĀOR, 9:5).*

Within the assessment examples shared, there was very few references to children's developmental progress. For example, during the interview COMM stated that:

*we noticed that he struggles quite a lot with some of his physical skills, like he can't cross his midline and things (COMM, 2:20).*

There was however, no evidence of these findings in the assessment examples shared. Instead, the assessment examples focused on his engagement in the

programme and used a strengths-based focus to document his physical skill. These findings are perhaps indicative of teachers being unsure of how to document children's needs within a strengths-based curriculum and approach to assessment. While the study participants focused on assessing children's strengths, as discussed earlier, monitoring their progress and identifying potential needs does not appear to occur as regularly.

#### **4.3.2.4 - Sharing assessment information with outside agencies**

Research participants acknowledged sharing information with outside agencies; namely SE and ERO. Respondents however indicated that sharing information with such agencies was not viewed as a key purpose of assessment, with 88% ( $N = 285$ ) ranking it as the least important purpose of the five options available. Two respondents also indicated that it was not an applicable purpose of assessment – with this being the only time 'not applicable' was indicated across the five purposes.

To access SE support, formerly called Group Special Education (GSE), for children with additional needs, assessment information needs to be collected and shared. While the majority of respondents indicated that assessment was something required for all children, a small number indicated that assessment was only required if there were concerns about a child's progress. When invited to make a final comment at the end of the survey, the belief was shared that:

*Assessing should only be to help children get extra help if it is needed*  
(Respondent 127).

The extra help referred to meant gaining access to SE services. Another respondent also shared similar views when articulating why the assessment of four year olds is important, stating that:

*I don't think assessment at this age is important - except [for] children who clearly need extra support – GSE, speech etc. (Respondent 94).*

The question remains how teachers would know that children need support unless assessment had occurred, either formally or informally. Such statements appear to be an extension of findings reported earlier where only half of the respondents believed it was their role to monitor children's progress.

When asked what comes to mind when thinking about assessment, just 2% of respondents noted ERO, yet half of the interviewees made specific reference to sharing assessment information with ERO and needing to meet their expectations. Such a view was articulated in the following quote, highlighting a focus on compliance:

*This assessment here is just to make sure that 'Yep, as a teacher I'm doing my job'.... I've got pictures and I've got learning stories, I can actually show this to ERO and say 'Look – yep, I am following Te Whāriki, this is proof that I am, and this programme is being run accordingly (TONG, 16:12).*

For another interviewee:

*.. you write learning stories, you make assumptions about children's learning, you pump them out so that when ERO comes they look at your books and go, 'Wow, look I can see progression of learning' (KGTN 1, 28:38).*

Such responses suggest an ideological position whereby assessment is being carried out for compliance reasons, and to meet accountability requirements, rather than to support children's learning and development.

#### **4.3.2.5 - Sharing assessment information with schools**

Reference to the sharing of assessment information with primary schools occurred with less frequency than the other purposes. Only 8% of respondents reported sharing information with schools weekly, although 52% indicated sharing information with schools every six months. However, 19% of the respondents signalled that they did so just once a year, and 21% specified that they never shared assessment information with primary schools. During the interviews the sharing of assessment information with schools was explored, with an array of views and practices being articulated. Some did not automatically share information as they did not wish to influence the school teacher's expectations of the child:

*sometimes it's good to give teachers information about how children learn, but sometimes it's also good to make that judgement call for themselves (PLAY 1, 22: 36).*

In comparison, another interviewee thought that:

*a new entrant teacher would want to know as much as they could about who that child is, and what they know. And so I would think they would want access to everything that the previous service gleaned, and then draw their conclusions, or their assessment from that (TEKU, 24:29).*

Other interviewees shared that they do not believe NE teachers value and/or understand children's profile books and information that they contain, as is articulated in the following quote:

*I don't think it's valued and I don't think probably eighty percent of new entrant teachers actually look through them .... or really care or see them as being helpful (MONT, 25:14).*

Twelve of the fourteen interviewees indicated that it was up to parents to share the child's profile with the school, making statements such as:

*It's the parents' responsibility to take that information to the school (PLAY 1, 24:5).*

While children's assessment information was not usually passed directly on to schools by the interviewees, some indicated that they visited schools with children (SAMO; TONG; PLAY 1), had school teachers visiting the ECE setting (KGTN 2; KGTN 3; SAMO) and talked with teachers (PRIV; MĀORI; KGTN 1; KGTN 2; KGTN 3; COMM). None however explicitly mentioned sharing assessment information during these interactions. COMM shared that the setting is currently reviewing its processes around sharing assessment information with

schools and is considering setting up an email database so this information can be shared with the relevant teacher or school.

The two settings who did share assessment information directly with schools were KGTN 3 and MĀOR. Both of these settings are situated next to or on school grounds and the interviewees acknowledged the ongoing relationships that existed. KGTN 3 revealed that assessment information was shared in a range of ways:

*...to the local school we do transition visits, and we, when they start transitioning we try to take a different story with us each week and in the class over there they've started a book on their bookcase with the children's stories in there too .... it gives the teachers some prior knowledge of the children before they start as well (KGTN 3, 22:21).*

If, however, children were not attending this school, families were encouraged to share the child's profile book with the teachers; the same process as other interviewees undertook. MĀOR indicated that while children's profiles were shared with the school, this only occurred if the school wanted to see them and if the parents were happy for that to happen. If parents were comfortable doing the school visits on their own, then they took the profile books with them:

*because at the end of the day it's the family who have to have that relationship with the teachers (MĀOR, 20:8).*

When asked why they believed that the assessment of four-year-old children's learning was important, 29% of the respondents made reference to school in their responses. A number of respondents noted being able to share information about children with school as being valuable. Such information is seen as being important for supporting children's transition to school:

*so that teachers at school get clear information regarding the child's stage of learning and development (Respondent 39).*

Respondents also indicated a belief that the assessment of four-year-olds enables them to see where a child is at before they start school and for any areas of concern to be identified prior to starting school:

*As the child approaches school age, it is useful to understand if his/her development is meeting key milestones. If the child is significantly behind in a certain area of development, now is a good time to recognise that, and seek further assistance if necessary (Respondent 110).*

Some respondents signalled that they saw part of their role as being to ensure children are 'school ready'. For example, a respondent stated when explaining why they believed the assessment of four-year-old children is important, that:

*It [assessment] can show exactly where the child is at with their learning and can give you an idea if they are ready for school (Respondent 201).*

On the other hand, others were averse to the perceived pushdown from schools in relation to assessment and shared their beliefs in response to the same open-ended question, stating:

*I am not in favour of reading things like 'goal setting'. This seems to be pushing them into school type assessment when they should be just playing and learning to co-operate with others, not having to decide what they will learn next (Respondent 178).*

Others also acknowledged an increased pressure from schools, and parents, with one noting:

*Assessment is important for our four year olds as we do have a certain amount of parent expectation on what their child can do prior to leaving for primary school. We also have pushdown from the local primary schools as to what they expect new entrant children to be able to do when they arrive at school (Respondent 266).*

Other survey respondents articulated a belief that assessment in the ECE sector should not be like that carried out in schools. Typical statements about how four-year-olds should be assessed included the following:

*Not formally with tests – wait until they get to school (Respondent 16);*  
and

*WE DO NOT believe that children at the age of four should be tested and put into categories as the richness of the learning at this age is not something that can be tested effectively (Respondent 137).*

Along with the challenges involved in assessing children of this age, respondents indicated they were concerned that more formal assessment methods did not align with the ECE sector's strength-based focus through statements such as:

*Documentation of their play-based learning, not formal checklists. Assessment should be done positively, recognising children's strengths, interests and learning dispositions (Respondent 198).*

Many of the respondents articulated strong beliefs about the need to avoid using school based assessment practices:

*I guess I could say what I do NOT believe it should be—standardised, age-based, rigid – there is so much pushdown of the state curriculum being expected from whānau for our four year olds (Respondent 233).*

Some evidence of programmes operating to prepare children for school was apparent in the survey responses. A small number of respondents noted that they operated transition to school programmes, sometimes developed in consultation with the local school. Further description of such programmes was provided by the interviewees, where CORP made reference to the 'Be School-Ready Initiative', while PRIV talked about the 'Fab Fours' programme that operates in their setting, where the four year olds come together with a teacher

for a small group time lasting about 20 minutes. In an acknowledgement of the controversy around such programmes, PRIV indicated that the programme did not run if ERO were visiting:

*I guess in a way it's a bit like a new entrant little gathering. And I guess that.... well, we're probably not meant to, but we do do it to help them transition to school as well (PRIV, 34:10).*

TEKU and TONG referred to being aware of and incorporating the school curriculum into their programme. CORP and KGTN 2 acknowledged making links to the Key Competencies from NZC by including the five key competencies on the back of the child's certificate of attendance and by using the language of the document.

While a specific programme to prepare children for school was not operating in the setting, TONG shared examples of her beliefs about her previous experiences as a primary school teacher influencing her assessment practices. Statements such as the following illustrate this focus:

*Like the National Standards, you know, you're able to see where your child is because there is something to assess them against—here there isn't: within the early childhood there's nothing to compare them (TONG, 12:22).*

SAMO, who had also previously worked as a primary school teacher, shared that:

*Well, that's one of the main reasons why this centre was started years and years ago. It was [that] our children weren't transitioning very well into the primary level (SAMO, 10:25).*

When discussing this idea further, SAMO noted that children needed all of their skills, like taking risks and not being afraid, to be ready to start school. Such statements are indicative of her belief that preparation for school was not just about children's cognitive development. PLAY 2, also a former primary school teacher, had also sought ways to enhance continuity between the sectors by visiting the local school so that she could replicate practices such as the songs being sung with the children in the ECE setting.

#### **4.3.2.6 - Assessment as a waste of time**

A small number of respondents indicated that they did not see a place for assessment in the ECE sector. Statements such as the following, which was made when asked why the assessment of four-year-olds is important, indicate that some respondents see assessment as something 'extra' to do rather than as an integral element of the teaching and learning process:

*Perhaps instead of having to write learning stories and assess children, ECE teachers could get involved with play (Respondent 178).*

When explaining why, or why not, they believed the assessment of four year olds is important, some signalled that for them assessment itself was not important, stating:

*I don't really. I think children should be free to develop at their own pace without assumptions about what they should or shouldn't do*  
(Respondent 25).

As discussed earlier, some respondents also indicated that they believed assessment should only occur when there are concerns about a child's progress or to access additional funding. Taken together, these responses suggest that some respondents do not believe that all four-year-olds need to be assessed.

For a small number of respondents, the documentation of assessment information was regarded as a waste of time. The following statements, revealing such beliefs, were made when explaining why the assessment of four-year-old children is important:

*But really children's learning and teachers' responses all happen in the here and now, and the obsessive record-keeping and documentation teachers are required to do is in my opinion a waste of time* (Respondent 276); and

*Assessment is fine. All the time that goes into the written assessment for the parents is a waste of time. All the parents want to see are pictures of their children* (Respondent 332); and

*It seems a large amount of paper work and little advantage for the children to have teachers involved in more admin just to maintain a*

*portfolio that is nice to look at but is little more than a memento*  
(Respondent 178).

These statements suggest that some respondents did not value assessment documentation highly, particularly in light of the time that it takes to complete.

#### **4.3.3 - Summary**

The findings of this study indicate that the participants held a range of beliefs about the purposes of assessment. The findings however suggest a strongly held belief that the key purpose of assessment is to share information with children and their families. Beliefs about using assessment to plan for learning and to monitor progress were also evident within this study, though this was not deemed as important as sharing information with children and their families. Sharing assessment information with outside agencies, such as ERO and SE, had less emphasis placed on it by the participants as a purpose of assessment. The findings suggest that while some participants believed it was important to share assessment information with schools, this did not occur frequently. Participants held a variety of views about school based assessment practices and how these related to ECE assessment practices. A small number of participants indicated a belief that assessment is a waste of time, or is something that only needs to happen when there are concerns about a child's progress. The next section reports findings relating to assessment and the primary school sector.

#### **4.4 - Assessment and Primary School**

Given the focus of this research project on the assessment of four-year-old children, and therefore children's imminent enrolment at school, it is not

surprising that some survey respondents made explicit reference to school and school assessment practices. Respondents shared their views within the three open-ended questions relating to their beliefs about assessment and within their final comments. Based on the survey findings, specific questions about assessment and how it is used to support children's transition from ECE to school were then asked in the interviews. Data from both phases is now presented.

The majority of interviewees indicated that they did not share information directly with schools themselves, as this was deemed the parents' responsibility:

*We haven't, because the expectation has been that the parents take the profile on (KGTN 2, 28:1).*

COMM and PRIV indicated they shared assessment information with schools with whom they had relationships and who wanted access to this information. MONT, PLAY 1, SAMO and MĀORI signalled that they shared information with schools if given permission by the parents, which usually occurred if the school or the parents had concerns about the child and their transition to school. Just one interviewee signalled that they took responsibility for sharing assessment information with the school to which most children transition. When taking children on school visits KGTN 3 noted that:

*we try to take a different story with us each week... and in the class over there they've started a book on their bookcase with the children's stories in there too (KGTN 3, 22: 21).*

The teachers in this ECE setting also met with the school's NE teachers once each term to share information about children transitioning to school. If children were not attending the neighbouring school, then families were encouraged to share the portfolios with the school the child was attending.

Some interviewees noted the challenges they experienced in relation to sharing assessment information with schools. CORP acknowledged that sharing information with schools via a 'transitional report' was something she had done at a setting she had previously worked in, and something she planned to revive. PLAY 2, despite making repeated attempts to share assessment information with the school nearest to the setting, noted that:

*No, it doesn't go to school or anything – they've never been interested in... our feeding school anyway has never had an interest in seeing any assessment, and I know that they don't from the other early childhood providers either (PLAY 2, 13:1).*

Despite visiting the school with small groups of children and initiating conversations about ways to support continuity between the two settings, no progress had been made. KGTN 1 also expressed a similar belief that primary school teachers were not interested in accessing the assessment information about children compiled by the ECE setting, stating:

*they didn't read them historically. They didn't. Parents would take them down to the teacher, they'd flick through, "Oh, nice" and give it back (KGTN 1, 30:4).*

## 4.5 - Knowledge of Assessment

This section explores the findings relating to the participants' knowledge of assessment, by focusing on their knowledge of the concepts of assessment *of*, *as* and *for* learning, as well as the sources of their assessment knowledge. These sources included experiences in education, conversations with colleagues, professional development, initial ECE qualifications and MoE resources. The findings related to these aspects are reported next, along with barriers to knowledge development identified by the participants.

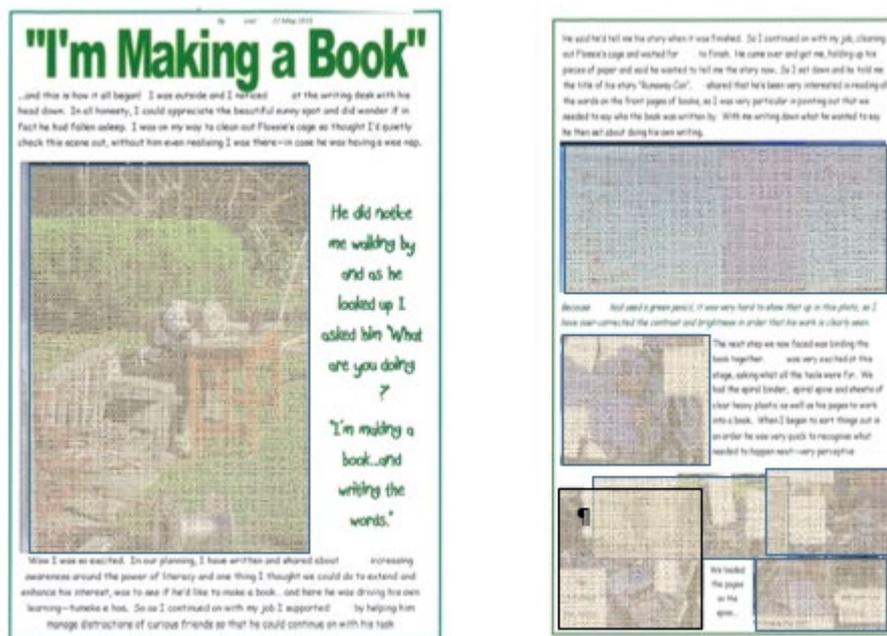
### 4.5.1 - Knowledge of Assessment *of*, *as* and *for* Learning

When asked to describe in their own words how assessment *of*, *as* and *for* learning were used in their assessment practices, 206 respondents replied. This response rate was considerably lower than the 295 responses given for the survey question immediately following, which explored where respondents' knowledge of assessment came from. In analysing the 206 responses, 42% of the respondents provided descriptions that aligned to some degree with the MoE explanations of assessment *of* learning, and 41% for assessment *for* learning. In contrast, only 12% of the descriptions aligned with the explanation of assessment *as* learning. When looking at the responses given that did not align with the MoE explanations, respondents tended to identify assessment methods (e.g. observation, photographs, conversations, work samples) and or other ways they used the information (e.g. wall displays, portfolios, evaluation of teaching) with the terms. The concept of 'Notice, Recognise and Respond' was noted by 5% of the respondents, with some equating the three words with *of* (*notice*), *as* (*recognise*) and *for* (*respond*). Further evidence of respondents' understanding of assessment *for* learning was apparent, as discussed earlier in

Section 4.3.2.2, in reporting the need to complete learning stories quickly so that they represented children’s current learning and could be used formatively.

When analysing the assessment examples shared by interviewees, 33% of the 88 examples included potential evidence of assessment *for* learning, indicated by headings or statements such as ‘Next Steps’, ‘What Next’ or ‘Opportunities and Possibilities’. None of the examples shared documented evidence of assessment *as* learning, though a small number did include evidence of children setting their own goals, as shown in Image 4.4.

**Image 4.4 -Assessment Example from KGTN 2**



In relation to assessment *of* learning, 13% of the assessment examples were checklists, work samples or summaries of learning. A further 20% involved the use of ‘Notice and Recognise’ and were therefore also classed as potentially being forms of assessment *of* learning.

#### 4.5.2 - Sources of Assessment Knowledge

Findings across both phases of this study suggest that the participants' knowledge of assessment is developed through their interaction with a range of sources, including their experiences in the sector, their conversations with colleagues, through their engagement in professional development and with MoE resources, and through their initial teacher education qualification. The emphasis the research participants placed on each of these sources of knowledge are explored next.

##### 4.5.2.1 - Experiences in education and conversations with ECE colleagues

Experiences in education, as shown in Table 4.11, was the most commonly identified source of knowledge about assessment by respondents. A total of 71% and 26% of respondents strongly agreed and agreed, respectively, that this was a source for their knowledge about assessment.

**Table 4.11 - Percentage of Survey Respondents Ranking where their Knowledge of Assessment Came From**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<b>Experiences in Education</b>	<b>71</b>	<b>26</b>	<b>3</b>	<b>0</b>	<b>0</b>
<b>Discussion with Colleagues and other Educators</b>	<b>60</b>	<b>37</b>	<b>2</b>	<b>1</b>	<b>0</b>
<b>Professional Development</b>	<b>58</b>	<b>33</b>	<b>8</b>	<b>1</b>	<b>0</b>
<b>Professional Reading</b>	<b>47</b>	<b>48</b>	<b>4</b>	<b>&lt;1</b>	<b>&lt;1</b>
<b>Additional Study</b>	<b>37</b>	<b>27</b>	<b>28</b>	<b>5</b>	<b>3</b>
<b>Initial ECE Qualification</b>	<b>35</b>	<b>41</b>	<b>15</b>	<b>5</b>	<b>4</b>
<b>MoE Resources</b>	<b>23</b>	<b>50</b>	<b>23</b>	<b>3</b>	<b>1</b>

Note. (N = 295). Percentages above 50% are in bold and percentages between 20-50% are shown in italics.

The role of experience in developing assessment knowledge was also evident within the interviews. For example, TEKU noted that she had been teaching for a long time and that:

*there are some things that you know because you've seen the patterns in so many children for so many years – you do see and acquire that knowledge (TEKU, 4:39).*

TONG, who holds a primary teaching qualification and who has not completed an ECE qualification, acknowledged that she had learned about assessment from her experiences in the sector, picking up on what others were doing and adapting primary sector tools she was familiar with.

The respondents also identified discussion with colleagues and other ECE educators as a key source in the development of their knowledge of assessment with 60% strongly agreeing and 37% agreeing this was the source of their knowledge. During the interviews, discussion with colleagues related to sharing information about children rather than in terms of learning from each other, while discussion about assessment with other educators was not mentioned at all. Mentoring was deemed as being important, very important or critically important by 84% ( $N = 297$ ) of the respondents. These findings provide further evidence of the value placed on learning from others, even though interviewees did not speak specifically about this.

#### **4.5.2.2 - Professional development**

More than half of the respondents (58%) strongly agreed, and 33% agreed, that their knowledge of assessment had been informed by their engagement in PD. The more time that had passed since gaining their qualification, the more likely respondents were to agree or strongly agree that PD was where their knowledge had come from. While 75% of those who gained their initial ECE qualification

between 1966-1985 strongly agreed that PD informed their knowledge of assessment, just 46% of those qualifying between 2006-2015 indicated the same ranking. These findings suggest that those who completed their qualification more recently were less positive about PD supporting their knowledge development than those who had completed their qualifications earlier.

None of the respondents noted that they strongly disagreed, and just one disagreed, with professional development contributing to their knowledge of assessment. PD was also acknowledged by twelve of the interviewees as informing their knowledge of assessment. For instance, MĀOR noted that:

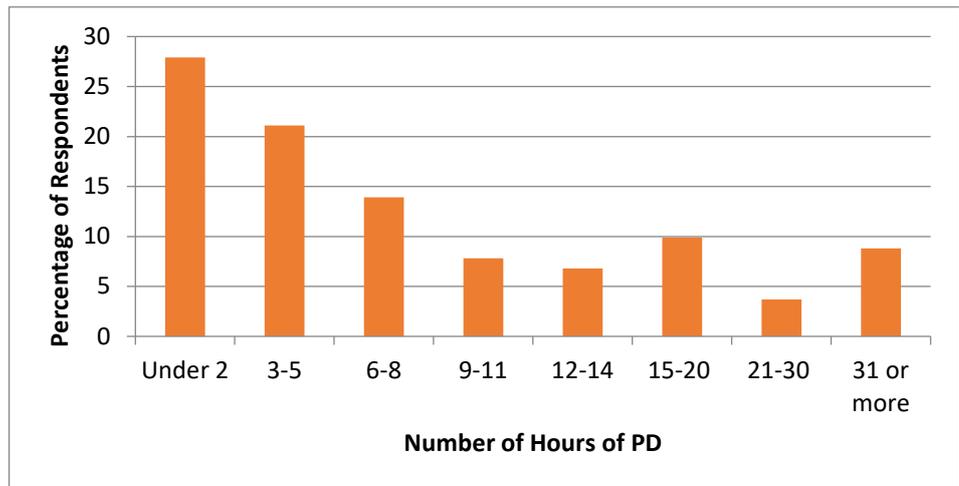
*I loved going to different PDs, and you know, hearing different perspectives, ... hearing speakers talk about [it]... because I always try to keep up with the trends or be aware of what the trends are (MĀOR, 19:15).*

Not all interviewees however talked about PD as contributing positively to their learning. COMM, for example noted that:

*I don't think I've attended any professional development specifically around learning stories that I've found really beneficial (COMM, 13:42).*

Respondents were asked to indicate how many hours of the PD they have received in the last 12 months relating to assessment. The results, as displayed in Figure 4.2, show that 49% of respondents had engaged in 5 hours or less of assessment focused PD during this period.

**Figure 4.2 - Phase One Reported Number of Hours of Assessment focused PD in the last 12 months as a Percentage**



Note. (N = 294).

In considering the number of hours of PD received in the last 12 months based on the service type in which the respondent is engaged, 71% of Playcentre respondents reported having had less than 5 hours PD. In comparison, 52% of Community based respondents and respondents from Other service types, along with 46% of Private and Corporate and kindergarten-based respondents indicated receiving less than 5 hours of PD during that timeframe. These findings suggest that Playcentre based respondents had received less PD opportunities when compared to other service types. The survey did not ask questions about the type of PD, e.g. whether it was carried out within the setting, self-driven or externally facilitated.

Of the 82 respondents who chose to make a final comment on the survey, 10 acknowledged wanting increased access to PD or on the challenges associated with accessing PD, as signalled by one respondent:

*I believe there should be more opportunities for teachers to develop their assessment skills, therefore more government provision for professional development (Respondent 136).*

Others remarked on the decrease in MoE funded PD opportunities in recent years:

*I think that the ECE sector has been disadvantaged by the reduction in professional development opportunities over past teachers (Respondent 246); and*

*I believe there should be more opportunities for teachers to develop their assessment skills, therefore more government provision for professional development. I also believe that the goal of 100% trained teachers should be reinstated and worked towards (Respondent 135).*

Of note, 4% of the responses to the final question specifically mentioned needing to have fully qualified and registered teachers in the setting. Given this question invited participants to add anything which they would like to say about assessment that had not been covered in the survey, these responses suggest that having qualified and registered teachers is a priority for at least some respondents.

Amongst the interviewees a variety of views about access to PD were evident. For instance, KGTN 2 noted that assessment had not been the focus of the PD

offered by their Association for a number of years, while KGTN 3, who worked in a different Association, signalled that:

*we've had quite a bit of professional development around assessment*  
(KGTN 3, 19: 17).

PLAY 2 and MONT both communicated that they believed that there were lots of professional development opportunities available, while PRIV disclosed that as the co-owner of the setting, she paid for in-setting PD now that the Government funded PD had been withdrawn. COMM shared that the setting had recently held a teacher only day, with the focus being on learning stories and developing shared expectations in relation to learning stories. TONG considered that they would benefit from specific support on assessment, as she questioned whether photos and learning stories on their own were enough.

Further evidence of survey respondents wanting to engage in PD was evident when asked to rank, from strongly agree to strongly disagree, whether they believed they would benefit from additional professional learning relating to assessment. The majority of survey respondents believed they would benefit from additional assessment focused PD, with 31% ( $N = 290$ ) of respondents strongly agreeing and a further 45% agreeing with the statement. When breaking these responses down based by service type, just 18% of Playcentre based respondents strongly agreed they would benefit from additional PD relating to assessment, compared with 50% of Community Based respondents. None of those holding a Playcentre qualification strongly agreed that they would

benefit from PD related to assessment. In contrast, 36% of those holding a Post-Graduate qualification strongly agreed that they would benefit from such PD.

#### **4.5.2.3 - Ministry of Education resources**

Respondents revealed mixed views in relation to the role of MoE resources. While 50% agreed that this was where their knowledge of assessment had come from, only 23% strongly agreed with the statement, while 23% were neutral. PLAY 2 and PRIV both referred to engaging with MoE resources, though neither stated specifically which resources these were. COMM was the only interviewee to refer to *Te Whatu Pakeka*, while only PLAY 1 and PRIV made reference to *Kei Tua o te Pae*. When respondents indicated when they had last viewed *Kei Tua o te Pae*, 72% specified that they had done so in the last six months, with a further 15% doing so within the last year. However, 12% had not done so for longer than a year, including five respondents who had never looked at the resource. When describing the ideas that came to mind when thinking about the word assessment, just three of the 371 respondents mentioned *Kei Tua o te Pae*, suggesting this resources is not at the forefront of the participants' minds.

#### **4.5.2.4 - Initial ECE qualification**

Respondents' beliefs about the impact of their ITE qualification on their knowledge of assessment were also diverse. While 35% strongly agreed that this was a source of their knowledge about assessment, this was comparatively lower than other sources and 24% were either neutral, disagreed or strongly disagreed. When breaking these results down to factor in when the respondents completed their initial ECE qualification, a pattern emerged. As demonstrated in Table 4.12, recent graduates were more likely to credit ITE as

a source of their assessment knowledge and the more recently the respondent had completed their qualification, the more likely they were to agree or strongly agree that their knowledge of assessment came from their qualification.

**Table 4.12 - Percentage of Survey Respondents Indicating Relationships between their Initial ECE Qualification and their Knowledge of Assessment based on Year gained Qualification**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1966-1985	19	23	27	15	15
1986-1995	29	31	31	4	4
1996-2005	28	49	14	6	3
2006-2015	47	46	6	1	0
<b>Total</b>	<b>35</b>	<b>42</b>	<b>15</b>	<b>5</b>	<b>3</b>

Note. (N = 295). Percentages between 20-50% are shown in italics.

However, during the interviews concerns about graduates' knowledge of assessment were raised. PRIV, for example, noted that:

*I don't see all the students coming out with brilliant understandings of everything (PRIV, 8:26).*

Such beliefs were also articulated by STEI, who stated that:

*I feel there's huge gaps in our training providers and what they bring, and how they teach people to truly observe (STEI, 22:3).*

COMM also articulated her view that students and new graduates needed to be better supported in knowing how to write quality learning stories. Taken together these responses indicate reservations exist regarding how well ITE programmes support graduates' understandings of assessment.

#### 4.5.3 - Knowledge of Assessment as a Potential Barrier

Knowledge of assessment practices was the barrier ranked as having the least impact by 42% ( $N = 282$ ) of the respondents from five possible barriers. Further evidence of respondents feeling confident about their knowledge of assessment was provided when respondents ranked, from strongly agree to strongly disagree, whether they believed they had a strong understanding of a range of assessment types. The vast majority of respondents indicated that they agreed or strongly agreed that they have a strong understanding of a range of assessment types, at 57% and 23% respectively, while less than 5% disagreed or strongly disagreed.

While generally positive about their own understanding of a range of assessment types, respondents were less affirming of other teachers' understanding of how to construct good assessments. When ranking, from strongly agree to strongly disagree, their beliefs about whether most ECE teachers understand how to construct good assessments, 25% ( $N = 291$ ) signalled that they disagreed or strongly disagreed with the statement. A further 38% signalled they were neutral, demonstrating that respondents had less belief in other teachers' assessment practices when compared with their own. Additional evidence of apprehension regarding other teachers' assessment practices is evident in the survey:

*I see little value in most learning stories I have seen in other contexts – they have little learning and focus mostly on activity and dispositions*  
(Respondent 315); and

*From my observation, learning stories are most often observations that are not necessarily indicating learning as such but documenting an event of some kind. These are often full of errors (Respondent 355).*

#### **4.5.4 - Summary**

This study's findings suggest that the participants' knowledge of assessment *of*, *as* and *for* learning is somewhat limited, despite the emphasis on assessment *for* learning evident throughout *Kei Tua o te Pae*. While a number of factors were identified as contributing to the participants' knowledge of assessment, their experiences in education and discussions with colleagues were identified as being a significant source of their knowledge. Although engagement in PD, with MoE resources, and through their ITE programme were seen as contributors to their knowledge of assessment, these were secondary to their experiences and engagement with colleagues. The participants' own assessment knowledge was not considered a barrier, though some did consider the assessment knowledge of other teachers a barrier.

#### **4.6 - Chapter Summary**

It is not surprising that a range of assessment practices and beliefs were articulated given the number of participants in the study. While a variety of assessment practices were evident in the findings, the majority of participants primarily use informal methods to gather assessment information relating to children's learning, with a focus on assessing children's strengths, interests and dispositions. The findings do however suggest that divergent views about assessment exist, with some participants indicating that learning stories are the best way to assess children's learning, while some others want to see a broader

range of methods being utilised, including the use of more formalised assessment methods. Some participants in the study articulated uncertainty about assessing children's needs, and how to document this information within the strengths based focus that underpins both *Te Whāriki* and *Kei Tua o te Pae*.

An assortment of beliefs relating to the purposes of assessment were also apparent. Sharing information with children and their families was seen as a primary purpose of assessment, with some focus on planning for children's learning and monitoring their progress also being evident. Sharing assessment information with others, such as outside agencies and schools was not found to be a principle purpose of assessment for the participants in this study. A small number of participants signalled a belief that assessing children's learning is not a good use of their time, and that assessment is only necessary when there are concerns about a child's progress.

The participants' knowledge of assessment appears to be variable. While some of the participants were able to articulate their knowledge of assessment clearly, others demonstrated a narrower knowledge base that was largely related to the use of learning stories. Surprisingly few participants were able to accurately explain how assessment *of*, *as*, and *for* learning are used within their own assessment practices, despite the MoE's focus on this area of assessment practices. The participants placed significant emphasis on their assessment knowledge having developed through their experiences in education and through their discussions with other teachers. While most participants did not believe that their own knowledge was a barrier to assessing children's learning, some had concerns about other teachers' knowledge and the assessment

knowledge of recent ITE graduates in particular. The findings of this study suggest that a range of different practices, beliefs and knowledge were evident across the participants. The next chapter discusses the findings in relation to existing research and literature.



## CHAPTER FIVE - DISCUSSION

### 5.1 - Introduction

The assessment of children's learning is important because of the integral connections between assessment, teaching and learning (Absolum et al., 2009). Teachers' perspectives of assessment are an important consideration, and are therefore what this study explored. Teachers' knowledge of assessment, including the purposes and methods for carrying out the assessment process, is worthy of specific consideration given that teachers' knowledge will impact on their beliefs and their understandings about the purposes of assessment and on the ways that they engage in the assessment of four-year-old children's learning (Pajares, 1992; Sylva et al., 2004). As noted by Dixon, Hawe and Parr (2011), teachers' beliefs also influence the ways they implement assessment and incorporate changes to their assessment practices.

Because teachers' perspectives of purposes, practices and their knowledge are such inter-related concepts, the key themes which emerged from the data outlined in Chapter Four will be discussed in this chapter. The themes include: teachers favour using informal assessment methods; teachers' limited knowledge of assessment; the role of experience in developing teachers' knowledge of assessment; the focus on some aspects of learning rather than children's holistic learning; the belief that the main purpose of assessment is to share information with children and families; and the view that sharing assessment information with schools is problematic. Chapter Six, the conclusion, will then explicitly address the three research questions underpinning the current study.

## **5.2 - Teachers Favour Using Informal Assessment Methods**

Findings indicated that the majority of the research participants predominantly used informal methods such as photographs, anecdotal observations and conversations with children, families and colleagues, to gather information about children's learning and development. Table 5.1 provides a comparison of the results across studies carried out by Mitchell and Brooking (2007), Mitchell (2008a) and the present study. The findings of the present study align with the earlier studies and all three studies found that the most frequently used methods to gather data about children's learning were informal methods.

**Table 5.1- Comparison of Percentage of Respondents Indicating Use of Assessment Methods Across Three Studies.**

	Assessment Method	Mitchell & Brooking (2003*) (2007 <sup>#</sup> ) (n = 401)	Mitchell (2007*) (2008 <sup>#</sup> ) (n = 402)	Present Study (2015*) (n = 373)	
				Use Indicated	Used in last four weeks
Informal	Photographs	90	96	100	99
	Conversations with children	90	93	95	82
	Work samples	89	90	100	91
	Discussion amongst Educators	87	86	100	97
	Consultation with parents	86	87	99	91
	Learning stories <sup>a</sup>	78	94	-	-
	Anecdotal records <sup>b</sup>	75	60	97	94
	Informal observations <sup>b</sup>	-	84		
	Discussion with outside professionals	-	42	96	42
	Video recordings	13	19	80	64
	Audio recordings	4	-	60	40
Formal	Event recording	41	19	70	18
	Running record	-	-	65	18
	Time sampling	40	16	60	10
	Own tests/Checklists	22	13	27 (Own test) 40 (Own checklist)	13 (Own test) 19 (Own checklist)
	Published tests	4	-	9	3

Note: \*Indicates year data was collected and <sup>#</sup>Indicates year findings were published.

<sup>a</sup> Learning stories were accidentally omitted as a method of assessment in the version of the survey circulated

<sup>b</sup> In Mitchell (2008a), anecdotal records and information observations were considered separate items, but in the present study were considered as being the same based on current use of the terms.

Data is not available for all assessment methods across all three surveys. Where data is unavailable this is indicated as –

Percentages add to more than 100 because multiple responses were possible.

Percentages above 50% are bolded and percentages between 20-50% are shown in italics

Of note is the reported increase in consulting with parents to gather assessment information between 2007 and 2015. These findings align with the emphasis placed on including families and their perspectives in the assessment process (Carr, 2001; MoE, 2004/2007/2009; Whyte, 2016). While the overall rates with which all of these methods were used to gather assessment information are shown to have increased over time, some patterns emerge when looking at when the respondents indicated they had last used each assessment method.

When breaking these results down to whether the method had been used in the last four weeks, which has been taken to be indicative of regular use, the present study shows that conversations with children, consultation with parents and the inclusion of work samples occurred less frequently than use of photographs or discussion with other educators. Given the advances in digital technology and its increased availability to teachers in the ECE sector (Carr & Lee, 2012) it is perhaps not surprising that the use of video and audio recording as an assessment method has increased dramatically in recent years, as is demonstrated in Table 5.1.

In regards to the use of formal methods to gather assessment information, a decrease in use was evident between the findings of Mitchell and Brooking (2007) and Mitchell (2008a). On the surface this pattern did not recur in the present study. However, further analyses of the reported use of assessment methods, as was shown in Table 5.1, shows that while the majority of the respondents in this study had indicated that they used event recordings as an assessment method, far fewer had done so in the last four weeks.

Similarly, while many of the 2015 respondents indicated that they used time samples, only a small number had used this method in the last four weeks. Such findings were more consistent with the levels of use indicated by the 2007 survey respondents in Mitchell and Brooking's study, though it must be noted that the 2007 survey did not specifically seek information about the frequency with which these methods were used. Responses from some of the interviewees suggested that informal methods of assessment were used more frequently because they were easier to complete and less time consuming.

Overall, these findings suggest that over time teachers have come to make less use of formal methods for gathering assessment information, including a reduction in the use of formal observation methods such as event recordings and time samples. The reliance on informal observations has been noted as a concern (Blaiklock, 2008), despite Featherstone (2011) noting that both planned (formal) and spontaneous (informal) observations are required as part of effective assessment practices. It is however important to consider that teachers may be making decisions about whether to use informal or formal observations in relation to the purpose of their assessment and what they are assessing. For example, the data gathered via an event recording is different from that gathered during an anecdotal observation. While each is appropriate for gathering assessment data, the nature and focus of the data gathered via each observation type varies. Therefore teachers need to be able to make decisions about which is the most appropriate tools to use depending on their purpose and what they are assessing. As noted by Carr (2008), it is important that teachers are using the right assessment tools for their purpose and what they are looking to assess.

The preference for using informal methods to collect assessment information over formal methods was consistent with many strongly articulated teacher beliefs about the need to avoid the use of formal assessment methods, such as tests and checklists, that were particularly evident in Phase one. Formal assessment methods were viewed by some participants as undermining the strengths-based focus of *Te Whāriki*. Such beliefs are arguably indicative of some teachers' philosophical beliefs about teaching and learning in the ECE sector. For some teachers, the role of the teacher is to be a 'facilitator' of

learning, rather than to actively 'teach' children particular skills and knowledge. Within such a view, children's learning is viewed as being intrinsic to them; as something that will naturally unfold through the provision of a stimulating learning environment, and aligns with developmental learning theories and long-standing romantic views of childhood that underpin much early childhood theorising (Piaget, 1954; Cleverly & Phillips, 1986). White (2009) argues that there is a tension between current sociocultural approaches to assessment and the role of the teacher in relation to fostering and supporting learning. She argues that contemporary assessment strategies require teachers to make subjective judgements about children's learning based on limited knowledge.

Despite some respondents articulating strong beliefs about avoiding the use of formal assessment methods in the ECE sector, this study also found evidence of formal assessments such as checklists and worksheets being used within the phase one and two survey responses. The assessment examples provided by some interviewees included checklists and worksheets. Checklists are used as assessment methods internationally, for example in England (Dubiel, 2014) and in the United States at a local or state level (Puckett & Black, 2000), and were previously used in New Zealand (Wilks, 1993; Niles, 2015). However, since the introduction of *Te Whāriki* and learning stories the use of checklists has not been promoted (Carr, 2001) and they are not referred to in either the original or revised versions of *Te Whāriki* (MoE, 1996; 2017a). A recent ERO report (2015a), however, found some evidence of standardised tests, usually used in primary schools, being used inappropriately in a small number of ECE settings, along with teacher-directed transition to school programmes which were overly teacher directed. It is important to note that no method of assessment is inherently

'good' or 'bad' (Bagnato, 2007; Snow & Van Hemel, 2008). Rather assessment needs to be fit for purpose. With each assessment method having different purposes, informed decisions must be made by teachers to ensure that they are using the assessment method or methods that align with their purpose, and that they are being used in the way they were intended (Snyder, McLaughlin & McLean, 2014).

Almost all of the participants in the present study reported that they used observations, both formal and informal, to gather assessment information. The findings of the present study, along with previous studies (Mitchell, 2008a; Loggenberg, 2011), do suggest that teachers are making less use of formal observation methods, except when following up on particular concerns about children's learning and development. Rather than seeing either formal or informal observations as 'better', the method associated with each should be used to gather information about children in complementary ways based on which are appropriate for the types of assessment information that is required—assessment which is fit for purpose (McLachlan, Edwards et al., 2013). If teachers are familiar with using both formal and informal observations methods, they may be better positioned to make informed decisions about which observation method provides them with the opportunity to gather the information that they need about a child.

It is worth noting that the revised version of *Te Whāriki* (MoE, 2017a) requires that teachers respond to children in the moment and plan to support children's learning in the future based on the assessment information which they have gathered, which implies the need for changes to teachers' assessment practice

(McLachlan, 2018). It is also worth noting that the revised curriculum document gives more explicit guidance to teachers in regards to naming a range of assessment methods than the original 1996 version did, including observations, photographs, video and work samples, and noting the need for the information gathered to be analysed.

Phase one results of this study align with previous findings that the vast majority of New Zealand ECE teachers are using photographs as part of the assessment process (ERO, 2007; Mitchell & Brooking, 2007; Mitchell, 2008a). How teachers are using photographs as an assessment tool and as an assessment documentation tool is less clear and possibly controversial. Survey responses indicated the preference to include lots of photos with just a few words may suggest that some respondents see the taking of a photograph as the assessment itself, rather than as an opportunity to gather information which is then assessed. Other respondents indicated that sometimes families just want to see photos of their children happy and engaged, suggesting that this form of sharing information with families can be as important for the families themselves as assessment information that describes the child's learning.

For some, it appears that the taking of a photograph has come to mean that assessment has taken place. This finding is supported by earlier work by Perkins (2010), who noted "At one end of the spectrum teachers are simply picking up a camera and 'snapping' without any specific pedagogical intent; they are simply capturing the 'moment' for a learning story they will write later" (p. 22). Such practices are not consistent with typical definitions of assessment, in which the assessment of learning and development occurs as information is interpreted

and analysed, through the application of professional knowledge or within the 'Recognise' phase of 'N, R, R' framework (Carr, 1998a). It is within the analysis of the assessment information that has been gathered that the learning is made visible, and it is within such analysis that what is noticed is recognised as learning (ERO, 2007).

Of note, Perkins (2013), in her critical analysis of *Kei Tua o te Pae* identified information about how to gather assessment data as a gap in the resource, as data gathering was not described in the three books included within the analysis sample, though it is illustrated in the examples. Perkins also noted that observation was only briefly mentioned. Instead, the term observation was replaced by the term noticing, though this term or the change to it was not clearly defined or explained either. Given the lack of guidance on how to collect robust assessment data, it is logical to "conclude that useful analysis is unlikely to follow if the data gathered for assessment purposes is inaccurate or incomplete, based on a passing or momentary "noticing" of a child" (Perkins, 2013, p. 77).

While the present study found that photographs were the most frequently used method for collecting assessment information, Perkins (2010; 2013) has noted that the MoE has provided little information or guidance about the use of photographs. The use of photographs occurs within almost all of the exemplars included within *Kei Tua o te Pae* and signals the central role that photographs play within learning stories, meanwhile little attention has been paid to supporting teachers to understand the role of photographs for broader assessment purposes. As signalled by Stuart et al. (2008), many of the portfolios

which they examined as part of their evaluation used photographs to record children's participation in the programme, rather than focusing on children's learning. The apparent reliance on photographs, not only as a method to collect assessment information but also as a documentation tool, suggests that EC teachers' assessment practices are dependent on a fairly narrow range of methods to gather assessment information and that these same methods are also often then used as part of the assessment documentation process.

In summary, the findings of this study show that teachers have a clear preference for using informal methods to collect assessment information relating to four-year-old children's learning and development. Teachers' assessment practices were found to predominantly involve the use of informal observations and photographs as methods of collecting assessment information, which was then often documented as a learning story. When more formal methods were used to collect assessment information, this was often because teachers had identified potential concerns regarding a child's learning or to access additional learning support. While teachers were aware of, and therefore somewhat knowledgeable about, a broader range of methods for collecting assessment information, they typically used only the informal methods on a regular basis. Learning stories were frequently referred to by the study participants, which is not surprising given they are the most commonly used assessment method (Mitchell, 2008; Loggenberg, 2011). However, teachers' understandings of learning stories and knowledge of how to effectively use learning stories as an assessment method and assessment documentation method were not clear. While teachers were using learning stories, questions remain about the quality of the learning stories being written.

Moreover, the findings indicate that for the majority of teachers, how teachers assess four-year-old children's learning is based on the use of a narrow range of assessment methods.

### **5.3 – Teachers Have Variable Assessment Knowledge**

As previously discussed, the findings of this study suggest that teachers predominantly use a limited range of assessment methods. The reliance on informal assessment methods, and particularly informal observations and photographs may be a result of their limited knowledge of assessment.

Specific information regarding the respondents' knowledge of assessment was collected during the survey as respondents were asked to describe how assessment *of*, *as* and *for* learning was used in their assessment practices. While almost half of those who did respond to the question accurately described assessment *of* learning, and assessment *for* learning, a much smaller number could correctly describe assessment *as* learning. Given the emphasis that is placed on assessment for formative purposes which is evident within learning stories (Carr, 1998a; 2001; MoE, 2004/2007/2009), it may have been expected that all teachers would be able to describe assessment *for* learning, even if they did not know what assessment *as* learning was.

Teachers in early childhood have access to several resources that emphasise the key concepts of Assessment *for* learning (AfL). For example, AfL is referred to in the full title of the MoE's ECE assessment resource — *Kei Tua o te Pae/Assessment for Learning: Early childhood Exemplars* (MoE, 2004/2007/2009) and AfL is given specific mention in Book 1, which introduces

the resource, and “discusses what assessment for learning entails” (MoE, 2004a, p. 2). In this resource, AfL is described as being ‘Noticing, Recognising and Responding’, and links these terms explicitly to the concept of formative assessment. Assessment *of* and *as* learning are not referred to within Book 1 of the resource.

Notably, the response rate for this question was lower than for the questions immediately before and after. This lower response rate may indicate that the respondents were unfamiliar with the terms, or did not know how to describe these terms in relation to their own assessment practices. The low response rate to the question, combined with the fact that less than half of those who did respond were able to do so correctly, suggests that these three terms are not well understood by the respondents. These findings imply that the respondents have fairly limited knowledge of the concepts of assessment *of*, *as* and *for* learning.

As noted by Ussher and Earl (2010) the shortening of the terms ‘assessment for summative purposes’ and ‘assessment for formative purposes’ has caused confusion for many teachers in the compulsory sector. Given that assessment *of*, *as* and *for* learning are closely associated with these terms, it is possible that teachers are also confused about these terms also. While research specifically exploring ECE teachers’ understandings of and knowledge about these three concepts has not been located, Stuart et al. (2008) noted limited documented evidence of assessment *for* learning in their evaluation of the implementation of *Kei Tua o te Pae*. Gunn and Gilmore (2014) however noted that amongst the student teachers in their study, assessment *for* learning was the dominant

construct, with evidence of strong beliefs relating to the formative purposes of assessment, though some evidence of assessment *of learning* was present.

The survey respondents however, for the most part, indicated that they believed that they had sound assessment knowledge. When ranking the barriers affecting their assessment practices, almost half of the respondents indicated that their knowledge of assessment had the least impact of the five potential barriers offered. Further evidence of respondents' confidence in their own knowledge was apparent in that most of the respondents indicated that they believed they have a strong or very strong understanding of a range of assessment types. These findings are however in contrast to the findings of ERO (2007; 2013), who noted that many teachers needed to further develop their knowledge of assessment. Despite being positive about their own knowledge of assessment, respondents were less affirming of other teachers' knowledge of how to construct good assessments. Some of the interviewees questioned other ECE teachers' understandings of and knowledge about assessment. Research specifically exploring ECE teachers' opinions of other teachers' assessment practices has not been located, meaning these findings make a contribution to the wider literature on assessment and are of particular importance to teachers working in teams, such as ECE centres or modern learning environments in schools.

Although the majority of the survey respondents and interviewees referred to using learning stories, their knowledge of learning stories was not always clear. Many of the responses given used the term learning stories in place of the word assessment, perhaps indicating that some teachers do not realise that they are

not the same thing. Others used the words assessment and learning stories interchangeably, again potentially indicating a lack of understanding about the difference between the two terms. Some teachers signalled that they were confused about what to include in learning stories and how often they should be written. These findings are similar to those of Niles (2016), who noted that without definitive guidance on how a learning story should be written and what should be included within it, the teachers involved in her study were continually navigating what should be included within the documented assessment.

When looking at the assessment documentation examples shared by the interviewees, evidence of a range of practices in relation to learning stories was evident. For example, less than half of the pieces of assessment documentation shared by the interviewee were considered learning stories by the researcher. Many, however, were anecdotal observations with photographs, rather than being a learning story that included the elements of N, R, R. Such findings align with those of Stuart et al. (2008), who noted that a tension appeared to exist between assessment documentation being a collection of artefacts, rather than being a tool to support learning. Concerns about the content of learning stories have also been expressed by Stonehouse and Gujer (2016), who acknowledged during a conference presentation on assessment documentation, that many of the examples which they have seen were 'doing stories' rather than learning stories. In such cases, the documentation focused more on describing what children were 'doing' rather than what they were 'learning'. The documentation reviewed in this study confirms these concerns.

Zhang (2015) has argued that the term 'learning stories' has become synonymous with the term 'assessment' in New Zealand, and there is confirming evidence in these data, with a number of respondents in both phases of this study using the terms interchangeably or using the term learning stories when the term assessment could equally apply. Respondents in both phases also frequently used the terms learning stories and assessment in ways that did not make it clear whether they were referring to methods of collecting assessment information, or if they were referring to methods for documenting assessment information. The use, or misuse, of language can add to or be indicative of teachers' confusion about assessment and the fact that learning stories are but one method of assessment available to them (Zhang, 2015). As demonstrated by the survey respondents and the interviewees the assessment documentation, which is generated as part of the assessment process, is also referred to as the assessment. The assessment documentation is in itself not the assessment. Rather the documentation provides evidence of what was ascertained about children's learning and development through the process of assessment and the analysis of the information gathered. As was noted in Brown's (2004) definition of assessment in Chapter One, assessment involves the interpretation, or analysis, of the information which has been gathered.

The ways in which terminology is used, or misused, can in practice create further confusion for teachers. Such challenges have been long standing in the sector, and perpetuated over time. For example, the nationwide surveys carried out by Mitchell and Brooking (2007), and Mitchell (2008a) which were drawn from for this study, used the terminology 'Assessment Methods' to describe a range of tools which can be used to gather assessment information about children.

Nevertheless, the method of collecting information is only part of the assessment process. The assessment in fact occurs as the information gathered is analysed. It is the process of analysis that creates the assessment, not the method by which it was collected (Brown, 2004). The findings of this study however suggest that this differentiation is not well understood by teachers.

The recent ERO (2015a) evaluation focused on enhancing continuity of learning as children transition from ECE to school also noted concerns about ECE teachers' assessment practices. The evaluation noted that many portfolios were a record of children's participation in the programme, rather than a record of the child's learning. When looking at the assessment examples shared in phase two, it is evident that while children's learning was explicitly noted in some of the examples, it was absent in others. Of the 40 examples that were not learning stories, none of these included an analysis of the information collected. Without such an analysis it is not possible to identify the learning that children are engaging in, as there is no description provided of what has changed. The 48 learning stories shared included the 'Recognise' element of the learning story framework, which is where the recognition of the child's learning is included. It is however worth pointing out that although children's learning is identified in the learning story that did not mean that it was done in a way that makes clear the 'new' learning. Rather, what the child was learning was noted in these examples, but comparisons were not necessarily made to what the child had previously been able to do, so opportunities for both formative and ipsative assessment were missed (McLachlan, Edwards et al., 2013).

Despite the focus on formative assessment practices, as discussed earlier, just a third of respondents indicated that they used assessment information on a weekly basis to inform their planning for children, with another half indicating that this occurred every 2-4 weeks. However, when looking at the assessment examples shared by the phase two interviewees only a third included documented evidence of planning for children's future learning. While statements indicating future planning, such as 'What next' and 'Possibilities and Opportunities', were included in 27 of the assessment examples shared, only two provided evidence of these having been carried out with children. Of note, the interviewees were invited to share just three pieces of assessment documentation, and were not specifically asked to include examples that linked together. However, if there were strong links between assessment and planning within the practices of the interviewees, it is likely that these would have been evident in most of the documentation shared. Instead just a small number of the examples provided evidence of continuity between assessment, planning and implementation. Such practices align with the findings of Stuart et al. (2008) who noted that children's portfolios infrequently contained evidence of continuity in children's learning and development whilst in the ECE setting, and that "While documented assessments were being used formatively, these practices rarely became part of the written narrative" (p. 9).

These findings may be a result of the changing emphasis on planning within publications relating to learning stories authored by Margaret Carr and colleagues. Originally the terms 'Describing, Documenting, Discussing, and Deciding' were used by Carr (2001) to explain the steps within the learning story process. *Kei Tua o te Pae* however used the terms of 'Notice, Recognise and

Respond' to describe the filter which teachers should apply as they assess and document children's learning via learning stories. By 2012 however 'Recording and Revisiting' had been added to the process (Lee et al., 2012), although these additions were not explained. Changes in terminology relating to the formative aspects of learning stories are also evident in the literature. Early writing related to learning stories (i.e. Carr, 2001) makes specific reference to teachers needing to 'Decide' what to do next to support children's learning: planning. Over time language that is more tentative has been used, such as "a suggestion of the possible pathways" (Carr et al., 2010, p. 212) and that planning "is not written for every story" (Lee et al., 2012, p. 109). Changes in terminology and emphasis, such as the examples given here have not been well explained and may therefore be impacting negatively on teachers' understandings.

Evidence of planning for children's future learning being omitted from the documentation has also been detailed in successive ERO evaluative reports. For example, in 2007 ERO indicated that just over half of the services in the national evaluation were "using assessment to plan for, and respond to, children's learning" (2007, p. 28). In 2013, ERO stated that in a quarter of the services involved in the national evaluation they did not identify the next learning steps for children, while in a small number of services assessment practices "were not responsive to children's age, interests or culture" (ERO, 2013, p. 8). ERO again noted in 2015 that in just over half of the services "Assessment records often focused on children's participation in activities, rather than on their learning" (2015a, p. 17). Using assessment information to inform teachers' planning is of course at the heart of formative assessment practices (Black & Wiliam, 1998), and the notion of assessment *for* learning (MoE, 2004/2007/2009; 2011), so the

pattern of findings in ERO's reviews and the results of this study highlight an area of concern related to teachers' assessment and planning practices.

International literature also emphasises the need to use assessment information to inform teachers' planning (Dubiel, 2016; Snow & Van Hemel, 2008). However, a seminal study undertaken in England found that teachers did not have sound understanding of the links between assessment and planning and that assessment information was not well used by many of the settings involved in the study (Moyles, Adams & Musgrove, 2002). The commonalities between the national and international literature on the topic suggests that many teachers do not yet understand the inherent links which should exist between assessment and planning.

Because most respondents, 59%, reported taking a week or longer to complete the assessment documentation of children's learning, opportunities to use the information gathered to inform teaching and planning may also be somewhat compromised. These findings provide further evidence, alongside those of ERO (2007, 2013) and Stuart et al. (2008) of teachers not using learning stories for formative purposes as they were originally designed. Given that learning stories are a time consuming form of documentation (Blaiklock, 2010; Loggenberg, 2011), it is worth considering why assessment information is usually documented as a learning story. Decreasing the time taken between gathering the assessment information and the documenting of it could potentially support teachers to use the information gathered more formatively.

In summary, the findings of this study signal that many teachers have somewhat restricted knowledge of assessment and assessment methods to use with four-year-old children. Teachers' knowledge pertaining to assessment *of, as* and *for* learning appears to be somewhat limited. Teachers' are not aware of the limited knowledge which they have relating to assessment and that the terms learning stories and assessment are not synonymous. Nor do teachers' appear to have a sound understanding of the complexity of learning stories and how assessment should be used to support planning

#### **5.4 - Teachers' Assessment Knowledge is Primarily Developed through their Experiences in the Sector**

The results of this study show that the participants' own experiences as a teacher were a strong influence on their knowledge of assessment, with almost all the survey respondents agreeing or strongly agreeing that their knowledge of assessment had come from their experiences in education. In addition to this, discussion with colleagues and other educators was also identified by almost all of the respondents as being where their knowledge of assessment had come from. When asked about the role of mentoring, the majority of the survey respondents had indicated it was important, very or critically important. Given that knowledge is often socially constructed (Bedrova & Leong, 2007; Lock & Strong, 2010; Vygotsky, 1978) it can therefore be argued that teachers' experiences, along with learning from others, make significant contributions to teachers' knowledge of assessment.

There are however, substantial challenges associated with teachers relying so heavily on their own experiences and engagement with colleagues and mentors

to inform their understandings of assessment. As noted by Reynolds (2007, p. 157) “an over-reliance on practical experience or working knowledge may not always lead to quality practices”. If teachers are not having opportunities to observe and discuss high quality practices, it will therefore be challenging to engage in quality assessment practices themselves. Given that successive ERO reports (2007; 2013; 2015a) have noted the need for increased attention to the quality of assessment practices in the sector, it is likely that many teachers are not able to observe their colleagues engaging in high quality assessment practices.

If the assessment practices in a setting that are being modelled to teachers are not of a high standard, then it is difficult for teachers to critically reflect on and develop their own practices further (Reynolds, 2007), and perhaps even maintain their current level of practice. While early childhood teams can operate as a ‘Community of Practice’ (CoP) (Wenger, 1998) whereby collaborative learning and development of practices occurs, being part of a CoP does not guarantee enhanced teaching practices. Even if teams are functioning as a CoP, these can become stagnant (Wenger, 2000) and even dysfunctional (Mládková, 2015).

Because current regulations only require that 50% of adults working with children aged Under Two and 80% of those working with those Over Two to be qualified, registered, and certificated teachers (MoE, 2014b), it is possible that a number of members of a CoP do not have assessment specific knowledge. Also of note, those in management roles are not required to be qualified, or hold teacher registration and certification. As a result, questions arise about the

quality of practices that teachers are observing amongst their colleagues and peers. Such questions were also previously raised by Cullen (2003), who questioned whether the qualifications of many of those working in the ECE sector were sufficient for enacting a curriculum as complex as *Te Whāriki*.

The phase two findings identified some concerns about the assessment knowledge of beginning teachers as they complete their Initial Teacher Education (ITE) qualification. Concerns about the effectiveness of ITE programmes were noted by the Advisory Group on Early Learning (MoE, 2015b) and more recently by ERO (2017). In its report evaluating newly graduated teachers, in relation to ECE graduates, ERO noted that while the beginning teachers identified as being confident or very confident in regards to assessment within the survey, when interviewed a lack of confidence and preparedness was evident. These findings were further supported by leaders in the ECE sector, who identified that assessment was an area of practice in which graduates were less prepared and confident.

Further evidence of student/beginning teacher knowledge in relation to assessment comes from Gunn and Gilmore (2014), who carried out a study examining ITE student teachers' feelings of preparedness in relation to assessment. While Gunn and Gilmore noted that students completing their ITE programme were "poised to further develop their assessment expertise in the settings in which they gain employment" (2014, p. 35), such development is reliant on students becoming a beginning teacher in a setting which supports their further learning. If beginning teachers are engaged in CoP's which are functioning well, powerful opportunities to engage in meaningful learning and

development in relation to their own practices are likely to arise. If this is not the situation for beginning teachers, then their learning and development is likely to be hindered, as the context where recently graduated teachers gain their experience impacts on their success as teachers (Ward, Grudnoff, Brooker & Simpson, 2013).

The assessment practices which student and beginning teachers have modelled to them in the sector are highly variable in quality, as shown by successive ERO publications (2007, 2013, 2015a). Mahmood (2013) asserts, in contrast to Perkins (2013), that high quality assessment practices are promoted within ITE programmes, yet the practices, which student teachers observe in the sector, are often different. Such a view is supported by Rose and Rogers, whose “findings revealed that the vast majority of student teachers experienced high levels of emotional and cognitive dissonance between the theories and principles obtained from their training and the pedagogic practices observed and experienced in teaching practice classrooms” (2012, p. 45). As student teachers enter the workforce and become beginning teachers, they may face challenges in implementing the practices that they have learned about within their teacher education programmes into the settings in which they work.

Concerns about beginning teachers’ lack of knowledge, including in relation to assessment, were shared by some of the phase two interviewees. Beginning teachers are often perceived as being a ‘novice’, where their skills and knowledge are viewed as being limited by their having only recently completed their teaching qualifications (Aitken, 2006; Ord, 2010). As such, beginning teachers, despite having engaged with current research and literature relating

to wise practice within their ITE programme, are often viewed as having little knowledge and skill in relation to teaching in the 'real world'.

When viewed as a novice, beginning teachers are unlikely to be considered as agents of change, and their perceived lack of knowledge and experience allows those in the sector to be dismissive of their points of view (Ord, 2010). Rather than seeking opportunities to learn from the beginning teacher, it is usually expected that the 'novice' will learn from their more experienced colleagues and assume the practices already established in the settings. Teachers continuing to do what they have always done aligns with Wenger's (1998) and Mládková's (2015) point relating to dysfunctional communities of practice.

While some apprehension was noted in relation to beginning teachers' knowledge of assessment within the study, this may be a result of recent graduates having been exposed to different assessment knowledge and practices that challenge existing practices. This knowledge may contest current practices and dominant discourses. As noted by Darling-Hammond and Baratz-Snowdon (2005) beginning teachers need to have opportunities to put into practice what they have learned within their ITE programme. However, given that beginning teachers are unlikely to have significant power within the relationships they have with their more experienced team members, it is questionable whether they would be able to critique current practices and regimes of truth (Foucault, 1980).

Evidence of prior knowledge influencing teachers' assessment practices was evident in the phase two key informant interviews, where four of the

interviewees held a primary teaching qualification. While three of these interviewees also held a recognised ECE qualification, one did not. When looking at the responses given by those with primary teaching qualifications, there was evidence of a different focus within the assessment process. The primary qualified interviewees worked in a range of service types, and it is by service type that the participants have been identified in this research project. It is however very difficult to differentiate whether the views held are a result of the participants' ITE qualification or the result of the service type in which they work. It is likely that a combination of both factors are influential.

For example, among the assessment examples shared by the interviewee from the Samoan setting were a number of worksheets and work samples of a child's writing, with the interviewee noting that more than the requested three assessment documentation examples had been shared because three would not show the range of methods used. The interviewee from the Montessori setting also included more than three examples for the same reason, and included a number of checklists or 'tick charts' which are not usually seen in the ECE sector. The use of tick charts to record children's progress on core areas of learning is underpinned by the Montessori philosophy (Chisnall, 2011); nonetheless, the interviewee also repeatedly articulated her belief that assessment should involve more than completing learning stories and the need to move beyond a focus on children's interests into a space where their future needs were also considered.

The Tongan based interviewee, the only interviewee holding a primary teaching qualification rather than an ECE qualification, described and provided evidence

of assessment practices more commonly associated with primary schools. These included her seeking to assess children's current knowledge and abilities in relation to specific goals from *NZC* and *Te Whāriki*, with an emphasis on identifying what children were not yet able to do or did not yet know. This interviewee also regretted the lack of National Standards for the ECE sector as a tool for comparing children with each other or guidance on what children should be capable of by the time they start school. Such a response may suggest that the interviewee, and perhaps many teachers, is unclear on how to use the learning outcomes within *Te Whāriki* for this purpose.

Existing research suggests that assessment is problematic for Samoan and Māori teachers (Luafutu-Simpson, 2001; Rameka, 2011, 2012a, 2012b, 2013; Tagoilelagi-Leota, 2010) from a cultural point of view. The views expressed by the Tongan interviewee may therefore provide further evidence of differing cultural expectations in relation to assessment. The views may also be a result of her holding a primary school teaching qualification, rather than an ECE qualification. Of note, the views expressed by this interviewee were different from those expressed by the other phase two participants, and National Standards do not in fact apply to NE children. The effective implementation of *Te Whāriki* and the assessment of children in relation to this curriculum however requires not only an understanding of the document itself, in theory and in practice, but also knowledge of child development (McLachlan, Edwards et al. 2013) and curriculum subject knowledge (Cullen, 2003). These data confirm that teachers' knowledge of assessment and its purposes, including culturally relevant assessment practices, influences the ways they carry out assessment.

As well as teachers holding a range of different teaching qualifications, completed at different points in time, initial teacher education (ITE) providers also vary from each other. For example through the provision of field-based or university-based qualifications, and what aspects of learning each provider prioritises (Kane, 2005), as well as through the qualifications of staff and emphasis on research. Variation between ITE programmes, across the entire education sector, was noted as a concern by ERO (2017). Perkins (2013) has drawn attention to the fact that there appears to be no published research exploring what assessment information each ITE provider includes within its courses. All of these variations, while a possible strength of the sector are likely to limit the amount of shared understanding and knowledge between ECE teachers, despite them holding recognised teaching qualifications.

In light of such variations in knowledge, the development of a cohesive and shared understanding of assessment within individual settings is a challenge: a challenge that is significantly more daunting when applied to the ECE sector as a whole. The findings of this study suggest that teachers have a wide range of assessment knowledge and understanding which, as discussed by the phase two interviewees, is in part a result of the differing ITE qualifications and programmes. To ensure greater synergy between ITE qualifications and programmes it may be that the Education Council, as the qualification accrediting body, needs to pay increased attention to the assessment related content within the various ITE qualifications and programmes.

Engaging in professional reading, additional study and using MoE resources helped to inform the respondents' knowledge of assessment, though these

were not viewed as being as important as discussions with colleagues and professional development. The MoE resources were the least likely to be a source used to inform respondents assessment knowledge. Given that whole service participation in PD and the depth of involvement of a PD advisor influences the effectiveness of PD (Mitchell & Cubey, 2003), it is not surprising that more individual forms of PD, such as reading, study and resources, are not viewed as positively as sources of assessment information. These findings are also perhaps not surprising given that the MoE last published assessment focused resources for ECE teachers in 2009, and MoE funded PD relating to *Kei Tua o te Pae* ceased in 2009 (Mitchell, 2011). The limited ongoing support for teachers in the sector might explain why teachers' understandings of assessment *for* learning are low, despite its emphasis within the assessment exemplars.

The need for professional development (PD) focused on assessment was evident in the results of the present study. PD has been shown to support teachers to develop and enhance their pedagogy (Mitchell & Cubey, 2003). When learning stories were developed as an assessment method, Carr (1998a) acknowledged their complexity and noted that it would be essential for practitioners to engage in PD focused on how to use the learning story framework, and the "focused and participatory observations that it demands" (p. viii). Despite the important role PD should play in supporting teachers ongoing learning, almost half of the respondents had engaged in less than 5 hours of PD relating to assessment in the 12 months prior to completing the survey. Almost all of the interviewees made reference to the importance of engaging in PD, although some expressed

hesitations about the usefulness of the PD they have experienced and that they did not always incorporate what they learned into their practices.

While the participants in this study indicated that their knowledge of assessment was developed through a range of means, the two most commonly referred to ways were through their own experiences as teachers and through their engagement with colleagues and mentors. The communities of practice in which teachers engage therefore appear to have a profound impact on teachers' knowledge of assessment and on their assessment practices. Given the ongoing concerns regarding the quality of ECE teachers' assessment knowledge and practices that have been voiced (ERO, 2007, 2013, 2015a; Stuart et al., 2008) this reliance on learning from other ECE teachers' is perhaps questionable in terms of supporting the development of effective knowledge of assessment. In light of the length of time since MoE resources focused on assessment were last published, and with the introduction of the refreshed *Te Whāriki*, it would be timely for additional support and resources to be provided, in conjunction with PD that supports teachers to engage with existing and new resources at a deep and meaningful level.

The findings of this study reveal that ECE teachers' knowledge of assessment is significantly influenced by their own experiences as teachers in the sector. Given the weighty influence of teachers' experiences on their assessment practices, it is worthwhile considering whether these experiences are adding positively to teachers' assessment knowledge or whether dysfunctional communities of practice are perpetuating poor assessment knowledge. While some research suggests that student teachers have sound assessment

knowledge when graduating from ITE (Gunn & Gilmore, 2014) and are poised to learn from their more experienced colleagues, research also suggests that beginning teachers are perceived as lacking knowledge (Ord, 2010; ERO 2017), and that some beginning teachers believe they are not well prepared to assess children's learning (ERO, 2017). Within such a construct, beginning teachers and the knowledge they bring with them from their ITE qualification is likely to be downplayed. Further complicating matters are the range of different ECE qualifications, available through a range of ITE providers. While little is known about assessment related content in the various ITE programmes, it is difficult to know what, if any, alignment exists between programmes. While other forms of learning were found to be somewhat influential on teachers' assessment knowledge, these were not deemed to be as significant as teachers' experiences in the sector.

## **5.5 - Some Rather Than All Aspects of Children's Learning and Development are Being Assessed**

When examining the aspects of children's learning which were being assessed by the participants in this study, two foci were clearly evident: assessing interests, strengths and dispositions; and assessing development, skills, knowledge and working theories. These two foci will be discussed in this section. Within the focus on children's interests, strengths and dispositions, more emphasis placed on children's interests within the assessment process. Maintaining a strengths-based focus within the assessment process was also important, and while dispositions were noted less frequently than strengths, the two were often noted. This emphasis is perhaps not surprising given that the original version of *Te Whāriki* used the terminology of children's 'strengths and

interests' somewhat frequently, at least five times, in the document. *Te Whāriki* is underpinned by a strengths-based focus in which children are viewed as being capable and confident learners.

Assessing children's dispositions was also important for a number of respondents, with a few noting it in their response to what comes to mind when thinking about assessment. For some respondents, dispositions were considered to be the most important focus of assessment, and half of the interviewees made reference to them during the interviews. Given the significant emphasis which has been placed on dispositions within the learning story framework, (Carr, 1998a; 2001; Carr et al. 2010; Carr & Lee, 2012) and *Te Whāriki*, it is perhaps not surprising that a number of the participants in this study noted a focus on assessing children's dispositional learning. Because curriculum and assessment influence each other (Puckett & Black, 2008), the emphasis on dispositions is not surprising. This emphasis was reiterated by Carr and Lee (2012) who stated that "Learning stories insist on including the dispositional [learning]" (p. 138), and was again reinforced by Lee et al. (2012) when stating that learning stories should be based on the dispositions connected to the five strands of *Te Whāriki*. However, challenges with assessing children's dispositions were identified by a small number of respondents. Niles (2016) noted similar findings, acknowledging a potential lack of understanding around dispositions and ways to document children's dispositional learning in meaningful ways.

The strengths-based focus underpinning *Te Whāriki* also appears to have created a situation whereby teachers are uncertain about how to assess, and

where to document, children's needs. While almost all of the survey respondents agreed or strongly agreed that assessment helps teachers identify the particular learning needs of any child, how teachers responded to these needs and how these needs were shared with families was less evident in the documentation. Amongst the assessment examples shared by the interviewees, all used strengths-based language that did not indicate that a need had been identified, but rather focused on the child's participation and interests. However, during some of the interviews it became apparent that the focus of the assessment was chosen because it was an area of need that the teachers had identified, and were working on with the child, though this was not specifically explicitly noted in the assessment documentation. Similar contradictions were noted by Niles (2016), who found that teachers were uncertain about whether to document children's needs, as this did not fit with the strengths-based philosophy that underpins *Te Whāriki*.

The second foci was on assessing children's development, their progress in relation to the learning outcomes of *Te Whāriki*, along with their skills, knowledge and working theories. However, none of the aspects covered within the second foci were noted as frequently as those in the first foci. While assessing children's development and skills was indicated by a small number of the respondents when answering the three open-ended questions, even fewer noted assessing children's knowledge. Such patterns were also evident within the interviews, where skills were referred to frequently by some of the interviewees and fewer referred to assessing children's knowledge. Learning outcomes and working theories, despite being core features of *Te Whāriki*, were noted by a very small number of respondents to each of the three open-ended

questions. In phase two, no references were made to assessing children's working theories, though two were made to assessing the learning outcomes of *Te Whāriki*.

Teachers' limited focus on assessing children's working theories could be as a result of the original conception of learning stories being focused on five learning dispositions, which aligned with the five strands of *Te Whāriki*. The early books of *Kei Tua o te Pae* also focused on supporting teachers to assess children's dispositional learning. Working theories have been described by Hedges and Jones (2012) as "the neglected sibling of the popular big sister, dispositions" (p. 34), with the authors going on to note that teachers found it challenging to communicate their understandings of working theories. It would be logical to suggest that if teachers do not have a good understanding of and knowledge about working theories then it is difficult to assess children's development in this area. The findings of the current study certainly suggest that teachers are paying less attention to assessing children's working theories than their dispositional learning. The more limited emphasis placed on assessing children's working theories, and knowledge by the respondents in the present study is perhaps the result of a larger debate about "the place of subject knowledge and skills learning in a holistic curriculum" (Cullen, 2009, p. 81). Mitchell et al.'s (2015) report to the MoE on 'Continuity of Early Learning' specifically noted that "Working theories could take a more dominant place in ECE assessment practice" (p. 7). The use of the word 'could' rather than 'should' here is notable and still leaves space for the current dominant emphasis of focusing on children's dispositional learning.

While some respondents made note of assessing children's knowledge, these references were at a lower rate than for interests and dispositions, and the same or lower in comparison to references to assessing children's strengths. The findings of this study align with those of Lim, Anthony and McLachlan (2014) who found limited documentation of children's mathematical learning, with mathematics being an aspect of subject content knowledge. Concerns regarding the dearth of assessment relating to children's subject content knowledge have also been raised by Blaiklock (2013), who noted his concern that the assessment of children's skills and knowledge were potentially being neglected due to the substantial focus on dispositions. Overall, there appears to be a growing body of research and literature in New Zealand and internationally which suggests that children's knowledge is often not the focus when assessing their learning (Fleer & Quinones, 2013; McLachlan & Arrow, 2015). The results of the present study align with these findings, and are supported by Mitchell et al. (2015) who called for teachers to engage in a systematic audit of assessment documentation to examine the aspects of children's learning being assessed as well as the depth and breadth of the assessment documentation.

Because of *Te Whāriki's* holistic focus, it follows that teachers should be assessing all aspects of children's learning—including their needs—as well as their strengths, interests, dispositions, development, the learning outcomes of *Te Whāriki* in all strands, their skills, knowledge and working theories. Findings in this study that show that participants are focusing on just some aspects of children's learning, rather than all, make it difficult to argue that a holistic view of children's learning is currently being enacted. Evidence of teachers' limited focus on children's skills and knowledge is longstanding. Wilks (1993) noted

that teachers considered children’s cognitive development difficult to assess, while McLachlan-Smith (1996) found that teachers focussed more on children’s socialisation rather than literacy or other cognitive areas. More recently, ERO (2015b) noted that teachers continued to prioritise *Te Whāriki’s* strands of belonging and wellbeing in comparison with communication and exploration. While this ERO report related specifically to teachers’ practices with infants and toddlers, other ERO reports have noted similar concerns. For example, in 2007 ERO noted that the assessment practices in less than half of the services demonstrated the breadth of children’s learning and development. ERO then later reported that assessment information “related only to aspects of *Te Whāriki* and was usually the *wellbeing* and *belonging* strands, and the principle related to *relationships*” (2013, p. 15, emphasis in the original).

It is worth noting however that *Te Whāriki*, in fact, talks about adults’ responsibilities in regards to meeting children’s needs, and to uphold their rights. As stated in *Te Whāriki*, “The curriculum builds on a child’s current needs, strengths, and interests by allowing children choices and by encouraging them to take responsibility for their learning” (MoE, 1996, p. 20). In this statement children’s needs are given the same priority as their strengths and interests, though in practice children’s needs have been somewhat demoted as teachers have focused primarily on children’s strengths and interests (McLachlan, 2013; McLachlan, Edwards et al., 2013).

The participants in this study only infrequently referred to identifying, responding to and documenting children’s needs. Instead, participants focused on children’s strengths and interests, which aligns with the strengths-based

approach evident in learning stories (Carr, 1998b; 2001a). However, despite indicating a focus on children's strengths and interests, a little less than half of the survey respondents agreed or strongly agreed that they used assessment information to determine whether children had met developmental milestones. How, or if, this information was then used to inform teachers' planned responses to support children's ongoing learning was not evident. During phase two, almost half of the interviewees used the terms 'progression' or 'continuum of learning', or something similar. These results suggest that teachers may be somewhat confused about whether they should be assessing children's needs and how to do such assessment, as well as how to document this information within a form of assessment that prioritises focusing on children's strengths (Niles, 2016). It may be that information about children's needs is used as teachers respond 'in the moment' to children, but that this is not documented.

The question however remains — why are they not documenting their assessment of children's needs? By only paying attention to what is 'working well' teachers are not supporting the whole child, which is in breach of both *Te Whāriki* and New Zealand's obligations as signatories to the United Nations Convention on the Rights of the Child (United Nations, 1990), which states that children have rights to health and education. In 2007 ERO noted that just over half of the services involved in their national evaluation exploring the quality of assessment practices in the ECE sector engaged in assessment practices which demonstrated the breadth of children's learning. By their own definition, to capture the breath of children's learning, assessment needed to take into account children's skills and interests, their dispositions, and parents' aspirations. Of note, children's needs are not explicitly mentioned here by ERO,

providing further evidence of the focus on children's strengths and interests which has permeated the sector.

The findings of this study reveal that rather than assessing all aspects of four-year-old children's learning, teachers are primarily focussed on assessing their interests, strengths and dispositions. These findings suggest that teachers' assessment practices attend to a narrow foci, rather than taking into account children's holistic learning. Teachers appear to be knowledgeable of the fact that they need to pay attention to all aspects of children's learning, but in practice this does not appear to be the case. Rather, assessment of four-year-olds development, skills, knowledge and working theories does not occur as frequently, despite *Te Whāriki* making the need to do so clear. The assessment of children's subject content knowledge, such as in relation to mathematics and literacy, appears to be a gap in many ECE teachers' current assessment practices. The findings also demonstrated that many teachers are experiencing a tension between upholding the strengths-based focus that underpins *Te Whāriki* and the learning stories framework whilst also assessing and documenting children's needs, which is also required by *Te Whāriki*.

## **5.6 - The Main Purpose of Assessment is to Share Information with Others**

Sharing assessment information with others outside of the teaching team was identified as being the main purpose of assessment, and in particular the ability to share information with children and their families. Of less importance to the study's participants was the sharing of information with outside agencies, or using assessment information to inform their planning and to monitor children's

progress, as is discussed later in the section. The sharing of assessment information with schools will be discussed separately, in Section 5.7.

Being able to share information with children and families was noted as being a major purpose of assessing four-year-old children's learning. The survey results showed that a significant proportion of the respondents saw this as the most important purpose of assessment, with more than half using assessment information to share information with children weekly, and three-quarters sharing assessment with families in the same timeframe. Given the emphasis placed on sharing information with families within the learning story framework (Carr, 1998a, 1998b, 2001), it is perhaps not surprising that this has become a particular focus for ECE teachers. One of the underpinning foundations of learning stories was that they allow the sharing of assessment information in a way that is meaningful and accessible to families and encourages their participation in the assessment process (Carr, 1998a, 1998b; MoE, 2004/2007/2009).

The visual nature of learning stories, which usually include photographs, was seen as a real strength by participants (Carr, 1998a; Carr & Lee, 2012), and one which allowed families to see what their child was doing at the ECE setting. Given that almost all of the survey respondents, and all of the interviewees, signalled that they used photographs as an assessment method, it is evident that photographs are a widely utilised tool. The richness of photographs as a way of sharing information with families was explicitly acknowledged by some survey respondents, and by some of the interviewees. The emphasis placed on the purpose of assessment as being to share information with children and families

that was evident within the present study is admirable and worthwhile and is supported by extant research (Featherstone, 2011; McLachlan et al., 2013b). However, this appears to have become the dominant focus. Such a focus is both a strength and a weakness, as it excludes other possible foci for assessment, such as for planning and tracking children's progress over time. The other purposes of assessment, as explored by Bagnato (2007), are relegated to a side-line position where teachers paid them limited attention. This narrow focus on the purpose of assessment is of concern and worthy of further research.

Given that most respondents, 59%, reported taking a week or longer, with some taking a month or more, to complete the assessment documentation of children's learning, it is likely that families do not see the assessment documentation until quite some time after it was collected. Although a number of the respondents talked about completing assessment documentation as quickly as possible so that it could be shared with families, and others indicated that they sought family input before completing the documentation, the length of time taken to complete this task was substantial for most. As noted by Blaiklock (2008; 2011), learning stories take significant time to write, which impacts on the length of time it takes before these can be shared with families. Teachers may however be talking with families to share information with them and to gather additional information and ideas for future planning from them as they complete the documentation, although this point cannot be confirmed in these data.

Studies exploring the use of ePortfolios do however, for the most part, suggest that ePortfolios support teachers completing and sharing assessment

documentation with families in more timely ways (Goodman & Cherrington, 2015; Hooker 2016). Ensuring that assessment information is shared with families as soon as possible is important for ensuring that families are kept up to date regarding their child's learning. Families would then be in a position to share additional information, which can be used formatively by teachers. The timely sharing of information from both teachers and families is also important if the information is to be used formatively to inform teachers planned responses to children (MoE, 2007).

Some evidence of assessment information being used to inform planned responses to children was evident within the assessment examples shared by the interviewees. The documentation provided by two of the teachers highlighted the ways in which assessment information could be used to inform teachers' responses to children, with these responses also being documented. The cyclic nature of the documentation provided by these two interviewees, where assessment informs planning and teaching, was somewhat in contrast with that shared by the other interviewees. These examples align with the assessment for formative purposes approach as was promoted within learning stories when they were originally developed (Carr, 1998a, 1998b, 2001). The other interviewees however tended to share 'one off' pieces of documentation, which were not connected.

In contrast, one of the kindergarten based interviewees shared assessment documentation that was connected in terms of focusing on a child's interest but which did not include any evidence of planning, as this was not considered to be part of their role as the teacher. This teacher described herself as a facilitator

of learning, rather than as a teacher, whereby her role was to provide the environment in which children knew that they could lead their own learning. Although infrequent, the terminology of 'facilitator' was evident in the survey responses also. The use of this language provides further evidence that some teachers are grappling with their role as an EC teacher within a sociocultural context, and appear to be somewhat 'stuck' in a developmental framework. These findings align with those identified by White (2009), who noted a tension in regards to the role of the teacher in fostering and supporting learning whilst engaging in sociocultural approaches to assessment. Bell (1990), in a study carried out prior to the introduction of sociocultural theory to New Zealand ECE teachers, however also found that some teachers were uncomfortable with the term 'teacher'. In findings similar to those of the present study, Bell found that some teachers were more comfortable responding to children's interests rather than initiating learning.

The challenges associated with defining the role of the teacher within a non-prescriptive curriculum underpinned by sociocultural theory, such as *Te Whāriki*, have been noted by Nuttall (2003). The role of the teacher within the assessment process, according to Cullen (1996), was also not definitively explained in *Te Whāriki*. The findings of this study suggest that some teachers, such as the interviewee described above, do not feel comfortable in owning the 'role of the teacher' and the intentionality which this requires. The role of intentional teaching is a new concept for ECE teachers in New Zealand (Batchelar, 2016), whereby "Intentional teaching is purposeful involvement in children's play to extend and promote children's learning" (Kirkby et al., 2018, p. 4).

Another purpose of assessment is so that teachers are able to monitor children's progress, learning and development (Snow & Van Hemel, 2008), though the results of this study suggest that this is not universally well understood. This study purposely sought the participants' perspectives about how they used assessment to inform their planned responses to children's learning, as is required by *Te Whāriki*. Such a focus does not negate the fact that teachers may use assessment information as they respond to children in the moment (Dubiel, 2016), though how teachers did this was not explored within this study. Through the gathering of assessment information respondents indicated that they were able to track children's progress, as well as their strengths and interests. What was less clear from the responses were the aspects of children's learning and development that teachers were monitoring and what children were being monitored against — themselves, other children in the setting, learning outcomes in the curriculum or developmental norms. Some of the respondents acknowledged that they used their knowledge of developmental theories of learning to make decisions about children's progress, and others talked about gauging children's progress "on the continuum of learning", although the theoretical or research base for the continuum was not made clear. To make judgements about children's progress and learning teachers' require both developmental theory and subject content knowledge (Bagnato, 2007; The Gordon Commission, 2013; McLachlan, Edwards, et al., 2013; Snow & Van Hemel, 2008).

In contrast, other respondents sought to distance their practices from making any sort of judgement about children's progress. For these teachers, making judgements about children's progress was viewed as applying developmental

theories of learning to their teaching practices, something they viewed as inappropriate given the sociocultural underpinnings of *Te Whāriki*. Viewing children through a developmental lens was seen as jeopardising the strengths-based focus that underpins *Te Whāriki* and ECE philosophy, potentially creating a situation in which children's needs might be foregrounded rather than their strengths and interests. Such a view shows a misunderstanding of sociocultural theory, which does in fact provide a theory of learning and development (Vygotsky, 1978). Bodrova and Leong (2008) argue that teachers often 'cherry pick' aspects of sociocultural theory and ignore the central role of genetic potential and developmental status in Vygotsky's theory, which is what appears to be happening in these data. Just as teachers display limited understandings of the purpose and types of assessment that are appropriate to young children, they display limited understandings of sociocultural theory. Both have implications for ITE and PD for future teachers.

Most of the participants in this study suggested that the documentation of children's learning is about noting what children are doing and their interests. Less emphasis was placed on identifying where children are at in comparison to their own previous learning, to other children of similar developmental status or to any expectations set for children in the curriculum or what the next steps in their learning may be. Within such a view, learning is seen as being essentially maturational, and has a long history within the ECE sector (Cleverly & Phillips, 1986; McLachlan, 2013). This enduring belief is however in contrast with more recent views of the role of the teacher in ECE, whereby teachers are required to play an active and intentional role in supporting children's learning (Hedges &

Cooper, 2018; Hedges, Cullen & Jordan, 2011; Leggett & Ford, 2013; McLachlan, Edwards et al., 2013; McLaughlin, Aspden & Snyder, 2016; Sylva et al., 2004).

*Te Whāriki* positions teachers as having an active role in the teaching process, and this role is also evident within learning story framework within the ‘Respond’ step of the process (Carr, 2001). The active role which teachers are required to take within both the teaching and assessment processes is also evident within *Kei Tua o te Pae* and *Te Whatu Pōkeka*. ERO (2007; 2013) have however lamented the limited evidence of teachers actively engaging in the teaching and assessment processes. Taken together, the results of the present study and existing research literature suggest that teachers’ beliefs about their role is somewhat at odds with MoE policy. It is however unclear whether this is because teachers have misunderstood the policy, or whether it is because they disagree with it.

The sharing of assessment information with outside agencies was however ranked as the least important purpose of assessment by a large proportion of the survey respondents. The two outside agencies which were specially noted by the study participants were ERO and SE. Referrals to SE did not appear to be something which happened frequently, findings were supported by earlier research by Aspden (2003), who found that most teachers in her study made one to three referrals to SE per year. While the teachers in Aspden’s study, for the most part, rated themselves as being quite confident making referrals to SE, a “number of teachers did acknowledge that their lack of experience in the domain of special needs affected their decision making in referral” (Aspden, 2003, p. 93). Some of the teachers were also concerned that they may be wrong

about needing to make a referral, and Aspden called for the development of new assessment tools to support teachers to identify children who require additional support and for teachers to “have a strong grounding in understanding the milestones and progression of development” (Aspden, 2003, p. 129).

Providing ERO with evidence of engaging in the assessment of children’s learning was specifically noted by two of the interviewees and suggests that, for at least some teachers, accountability to outside agencies is of importance to them. These two references were in relation to compliance, and being able to prove to ERO that assessment of children’s learning was occurring. This may have been related to notions of accountability, and needing to demonstrate that they were upholding the ECE regulations (MoE, 2013). While small in number, some survey respondents indicated a view of assessment being a waste of time and something they did in order to meet accountability requirements. Such views align with Apple’s (2004) notions of job intensification, where there is much to be done and the teachers’ focus is on getting it done. As noted by Mawson (2011), some teachers report being under pressure to meet accountability requirements, providing evidence of job intensification. However, it appears that for the vast majority of teachers that assessment for outside agencies and accountability is not a major focus.

In summary, the findings of this study suggest that teachers believe that a main purpose of assessment is to share information with others: namely, children and their families. Sharing assessment information with children and families was seen as being of primary importance by a significant proportion of the study

participants, which is a significant shift from an earlier study carried out by Wilks (1993). The shift to a focus on sharing assessment information with children and families is likely due to the emphasis of sociocultural theory, the emphasis given to involving children and families in *Te Whāriki*, and the similar emphasis within the learning story framework. However, as noted by Bagnato (2007), assessment has multiple purposes and this is something that teachers may need to be supported to better understand. The development of such understandings is particularly important given the ‘cherry picking’ of particular aspects of theories, or the misinterpretation of theories, which are guiding teachers’ assessment practices. While other purposes for assessing four-year-old children’s learning were identified, these were generally seen as being less important than sharing with children and families. Other purposes included using assessment information to plan for children’s future learning, to monitor children’s progress, and to share with outside agencies such as SE and ERO, and for accountability purposes.

## **5.7 - The Sharing of Assessment Information with Schools is**

### **Problematic**

Sharing information with schools was deemed another purpose of assessment, though there was less emphasis on doing so in comparison to the other purposes. The majority of participants indicated that the assessment information was shared infrequently. Such findings suggest that while participants are aware that assessment information should be shared with schools, a number of barriers hindered the sharing process. Wright (2010) similarly noted challenges associated with the sharing of assessment information with schools, including the focus of the assessments themselves.

While the ECE sector tended to focus on the process of learning, the NE teachers in Wright's study tended to focus on the product of the learning. The focus on two different aspects of learning has the potential to create situations in which teachers from each sector are 'talking past' each other, not fully understanding or valuing the assessment focus of the other sector. These findings around assessment and transition have also been found in other studies, both nationally (Belcher, 2006; Davies, 2011; Sherley, 2011) and internationally (Cassidy, 2005; Dockett & Perry, 2007; Martlew et al., 2011).

Further complicating the sharing of assessment information with schools is the fact that different assessment practices are used within the two sectors (Sherley, 2011; Wright, 2010). Therefore, NE teachers may not understand the assessment practices used in the ECE sector, or the strengths-based way in which assessment information is documented. As noted by Wright (2010), the assessment information shared with school teachers needs to be understood by them. It also follows that the assessment documentation shared by ECE settings needs to be more than a 'scrapbook' or 'photo album' documenting the child's participation in the programme. Rather assessment documentation should provide evidence of the progress children are making over time in regards to their strengths, interests, needs, learning and development. The increased focus on pathways between ECE and school, and on the learning outcomes, within the revised version of *Te Whāriki* (MoE, 2017a) might support ECE teachers to think more about the information which they provide to school teachers.

Moreover, in the present study, there was variation evident in the participants' understandings of the ways assessment information could be, or was being, used to support four-year-old children's transition to primary school. For some, assessment information was viewed as being useful for themselves as ECE teachers for monitoring children's progress, and identifying whether children were 'ready' to start school. Notions of children needing to be 'school ready' is aligned to a maturational approach to the transition to school and have been common in the United States (Graue, 2006), and are becoming increasingly evident in the United Kingdom (Robert-Holmes, 2015). Peters (2003) notes that while formal 'readiness' tests are not part of children's transition to school here in New Zealand, informal measures have continued to reside in the sector.

One of the arguments for using a school readiness based approach is to use assessment information and teachers' knowledge of children to identify those who are not ready for school. Within such a 'filling the gaps' view (Peters, 2003), additional support can be put in place in order to help prepare them for school. Within the present study, knowing where children were at with their learning and development at age four was seen as useful for ensuring that access to additional supports, such as Special Education (SE), could be put in place if necessary before children started school. The responses given in the survey suggest that getting such support in place before children start school was seen as particularly important, perhaps signalling beliefs about needing to prepare children for school and wanting children to have a good start at school.

Discontinuity between the ECE and school sectors has long been identified as an issue (Peters, 2010; Dockett & Perry, 2007), with assessment being explicitly

recognised as a potential aspect of discontinuity internationally (Martlew et al., 2011) and nationally (Wright, 2010). The participants in the current study identified that they primarily used informal methods to gather information in order to assess children's learning and development. In contrast, New Zealand primary school teachers typically use both formal and informal methods to gather assessment information (Sherley, 2011; Wright, 2010), though formal methods are often used more regularly in the school sector than in ECE (Wright, 2010).

There was nevertheless some evidence of assessment practices more commonly associated with primary schools being used in the ECE sector in the present study. The assessment practices of three services types -- the Tongan, Samoan and Montessori settings -- included evidence of assessment practices usually associated with primary schools. The interviewee from the Tongan setting, who holds a primary teaching qualification rather than an ECE qualification, described identifying specific learning goals from *Te Whāriki* against which to assess children. Meanwhile, the interviewee from the Samoan setting, who holds primary and ECE teaching qualifications, included examples of worksheets and a list of developmental milestones. The interviewee from the Montessori setting, who holds a Birth-Eight qualification, included a number of checklists amongst the assessment examples shared. This perhaps indicates that the setting type in which the interviewee works and what they learned within their ITE qualification both influence and impact on their assessment beliefs (Ord, 2010). As noted by McGee and Penlington (2001), what teachers do in practice is governed by their knowledge and beliefs. In turn, teachers' philosophical and cultural backgrounds, as well as the ITE programme and the settings in which

they work influence teachers' knowledge and beliefs, as previously discussed in section 5.4.

It is certainly necessary to ensure that teaching and assessment practices utilised in the ECE sector are appropriate and aligned with *Te Whāriki*. This however does not mean that assessment practices more commonly associated with the school sector could not be adapted and adopted by ECE teachers, such as some of the assessment methods listed on TKI. In turn school teachers could do the same in regards to adapting and adopting ECE assessment, such as learning stories (O'Connor & Greenslade, 2011; Smith et al., 2011). Across the two sectors methods exist for assessing children's skills and knowledge, and their dispositions and socioemotional skills. Perhaps, rather than seeing the available methods as being sector specific, it is conceivable that there is a place for all of these assessment tools in both sectors based on their purpose and as a means for enhancing continuity between the sectors.

Issues of school-readiness can be complicated and have significant implications for assessment. In the present study, some participants in both phases specifically noted the need to avoid a 'pushdown' of the school curriculum into the ECE sector, while others identified that structured programmes designed to support children's preparation for school were operating in their settings. Some of the expectations relating to preparing children for school came from parents, as well as from primary school, and from the participants themselves. For example, one interviewee referenced a 'Fab Fours' programme running in their setting, while noting that this programme did not operate if ERO was visiting. The 'hiding' of this programme suggests recognition that the programme may

not align with the play-based philosophy of learning underpinning the ECE curriculum, *Te Whāriki*. In contrast, another teacher talked openly about the setting's school preparation programme and the way it supported children to transition to school.

The notion of 'schoolification', where the more formal school based pedagogy and practice is pushed down into the ECE sector has, for the most part, long been resisted within the ECE sector (Alcock & Haggerty, 2013; Cullen, 2003). The development of *Te Whāriki* was in itself in part about ensuring that the school curriculum and pedagogies associated with teaching older children did not creep down into the ECE sector (Carr & May, 1993). Adherence to beliefs about avoiding 'formal' assessment in the ECE sector has implications however. For example, recent calls not to participate in a project designed to develop a common, international formal ECE assessment framework, undertaken by the Organisation for Economic Development (OECD), have been forthcoming (Carr, Mitchell, & Rameka, 2016; de Vocht, Mackey, & Hill, 2016), as part of a larger international resistance movement against assessment of learning against a benchmarked assessment tool.

Rather than ECE being preparation for school, it is valued for its own sake, and "One of the maxims of early childhood education is that it does not exist to prepare children for school" (Cullen, 2003, p. 287). School is nonetheless the next stage in children's educational journey, and so it cannot, and should not, be ignored by ECE teachers. How teachers have gone about ensuring children's successful transition from ECE to school has however varied. Some teachers, such as those discussed, have focused on the notion of 'readiness' and wanting

to ensure that each child has the skills and knowledge that they believe they need to thrive in the school environment. What constitutes readiness is however difficult to define and difficult to measure (Dockett & Perry, 2009; Graue, 2006). This challenge is likely further complicated by the fact that ECE teachers' pay greater attention to children's dispositions than to their working theories (Hedges & Jones, 2012), which are only one 'measure' of readiness. The findings of the current study suggest that ECE teachers are less likely to focus on assessing children's skills and knowledge, in effect the learning outcomes presented in *Te Whāriki*. It is worth noting that the revised version of *Te Whāriki* includes 20 learning outcomes, following advice from the MoE convened Advisory Group on Early Learning (MoE, 2015b), that recommended a tighter focus on outcomes of children's learning (McLachlan, 2017).

Despite teachers' awareness of the need to share information with schools and develop collaborative working relationships, the findings from the present study suggest that parents are primarily charged with being responsible for sharing assessment information relating to their child, usually in the form of a portfolio, with the school. Similar findings have been noted by ERO (2015a), who went on to note that while services encouraged parents to share this information with the schools, they did not provide a sound justification of why it was important to do so. It is evident that this is an area of practice in which there is little collaboration between the ECE and school sectors and a great need for better processes. When exploring these practices further through the interviews, some of the interviewees did talk about developing professional relationships with school teachers, and some were working to establish systems for the

sharing of assessment information, so there is some local work happening, but more is needed.

In exploring the reasons why assessment information was not shared with schools, a number of views were evident. Some wanted to ensure that the school teacher was able to form their own opinions about the child, while other respondents thought that school teachers would want to know as much as possible about the child and so they should therefore be sharing information with them. Other participants, and in particular the interviewees, were of the belief that school teachers did not understand and/or value the assessment information gathered, and therefore did not share it with them. Such findings align with those of Sherley (2011) and Wright (2010), as previously discussed. Notably, the two interviewees who were more regularly sharing assessment information with school teachers were located next to a school, or within a school's grounds. This proximity created ongoing opportunities to engage with and build relationships with the school teachers, and for the teachers to meet once a term with the NE teachers as well as have teachers take children on their weekly school visits.

The recent MoE 'Community of Learning' (CoL) initiative (MoE, 2018c), in which education settings, including ECE settings, are encouraged and supported to work collaboratively and reciprocity to enhance teacher practices relating to a shared goal or achievement challenge. While the CoL's have the potential to enhance greater collaboration between teachers in the ECE and school sectors, by August 2017 just 279 ECE settings were involved in the 210 CoL's which had been established (MoE, 2018c). In comparison 1734 schools were involved in

the CoL's (MoE, 2018c), suggesting that at this point in time ECE settings involvement is small which may be, in part, because unlike schools ECE settings receive no funding to participate in the CoL's (MoE, 2018d).

The CoL framework does however provide an opportunity for greater collaboration between the sectors, with the potential to also enhance continuity between the ECE and school sectors. The need for greater continuity between the sectors in relation to assessment was evident within the findings of this study. Assessment continuity between the sectors is underpinned by the development of shared knowledge and understandings about assessment by teachers from both sectors (Dockett & Perry, 2007), such as that developed through collaboration. Shared understandings would also help progress the more effective sharing of assessment information between the two sectors (Wright, 2010). As noted by Mitchell et al. (2015), it is challenging for teachers across both sectors to develop shared understandings about assessment but opportunities for reciprocal learning, such as those promoted and possible through the CoL's model, foster cross-sector professional development and learning.

Related to knowledge of the assessment practices used in schools, participants' knowledge was somewhat limited based on their experiences and qualifications. For example, interviewees who held a primary teaching qualification made specific reference to assessment practices they had used, while ECE qualified interviewees spoke more broadly about assessment in schools rather than mentioning specific assessment practices or methods. When survey respondents noted school assessment practices this was to indicate that they

did not believe ECE assessment practices should be like those used in schools. The survey responses suggest that ECE teachers have a perception that assessment practices in schools are based on frequent use of standardised and formal testing of children.

As this study did not include school based teachers, or gather information about school teachers' actual assessment practices, it is important to note that it is the ECE respondents perceptions of what happens which have been reported here. New Zealand based research specifically exploring ECE teachers' knowledge of school assessment practices has not yet been undertaken, although Hill et al. (2013) noted that the view held by many ECE student teachers' in the first year of their ITE programme was that teachers would be observing children as they engaged in assessment activities. Such views are perhaps a result of the students' own experiences of assessment in the schooling sector and these views are perceived as still being applicable to the ECE sector. As noted by Darling-Hammond (2014) student teachers' are influenced by their own experiences, and the "apprenticeship of observation" (p. 548) that having being a student themselves involves.

Findings from this study signal that the sharing of assessment information with schools is viewed as being problematic. ECE teachers appear to be unsure of the ways that they can use the assessment information they have gathered to support children as they prepare to transition to school, or how to share that information with school teachers in a way that is useful to them. The differing approaches to assessment, including the assessment methods used and the ways in which the assessment information is used, seems to create further

discontinuity between the two sectors. Parents are often left to be responsible for sharing assessment information relating to their child, despite the ECE and school teachers being the ones with the professional knowledge about assessment. This may be because teachers in both sectors have limited knowledge of the assessment practices used in each other's sectors.

## **5.8 - Chapter Summary**

The findings of this study paint a picture of ECE teachers with varied knowledge of assessment in its broad sense, as well as the various assessment methods available to them and the multiple purposes of assessment. Although some teachers are able to articulate a sound understanding of assessment, many others struggle to accurately describe key terms and use terminology in ways that indicate they have an incomplete understanding of these terms. Learning stories were commonly referred to, and the most used assessment method and assessment documentation method. Despite the frequency that learning stories are being used, questions remain about the quality of the learning stories being written and teachers' understandings of this complex assessment and documentation method. Findings of this study suggest that teachers believe that they would benefit from PD specifically focused on further developing their assessment knowledge.

Sharing assessment information with children and families is considered by teachers to be the primary purpose of assessment. While other purposes of assessment are acknowledged, such as planning, monitoring progress, accountability and sharing information with outside agencies and schools, none of these was found to be as important as sharing information with children and

their families. Given that learning stories are so widely used, and their inherent focus on sharing assessment information with children and families, it is perhaps not surprising that many teachers have come to see this as the focus of assessment. However, assessment has multiple purposes, and all of these are important and should be addressed.

Teachers predominantly use informal methods to collect assessment information relating to children's learning and development. Photographs and informal observations, such as anecdotal observations, are the most commonly used methods for collecting assessment information. While teachers are aware of the formal methods for gathering assessment information, these methods are not implemented as frequently as informal methods. As indicated previously, learning stories are widely used by teachers as a method to guide their assessment and documentation practices via the framework of 'Notice, Recognise and Respond'. The methods which teachers use to assess children's learning are likely influenced by their knowledge of the tools and of assessment in general, and assessments purposes. Given that teachers' knowledge of assessment was found to be predominantly developed through their experiences in the sector, it is worthwhile considering how these experiences are supporting teachers to develop sound understandings of assessment. Although ITE qualifications were found to play a role in supporting teachers' knowledge of assessment, opportunities to enact this knowledge were potentially limited. Furthermore, the range of different qualifications and potential variation in assessment related content across qualification possibly further enhances inconsistency in relation to assessment.

Teachers in the study reported focusing on assessing children's interests, strengths and dispositions, rather than their holistic learning and development. The focus on assessing only some aspects of children's learning is problematic in terms of ensuring that all children are being assessed in alignment with *Te Whāriki*. Some teachers also appear uncertain about how to assess and where to document children's needs, given the strengths-based focus of *Te Whāriki* and the learning story framework.

The aim and research questions underpinning the current study will be answered in the following chapter. The methodological approach will be reflected upon, with recommendations for the sector and future research also outlined. Concluding comments will then be made to summarise key findings from the study.

## CHAPTER SIX - CONCLUSION

The aim of this study was to explore New Zealand ECE teachers' assessment purposes, practices and knowledge in relation to the assessment of four-year-old children's learning. Three research questions were used to investigate this aim:

1. What do New Zealand early childhood teachers' believe are the purposes of assessing four-year-old children's learning?
2. How do New Zealand early childhood teachers assess four-year-old children's learning?
3. What knowledge underpins New Zealand early childhood teachers' assessment of four-year-old children's learning?

To answer these questions, constructivist and constructionist epistemologies, along with a pragmatic worldview, were adopted. Interpretivism was utilised to explore how the participants construct knowledge. A mixed methods, explanatory sequential design was developed, involving two phases. Phase one involved a predominantly quantitatively focused nationwide survey. Phase two was predominantly qualitatively focused and involved key informant interviews with 14 teachers from nine different service types within the ECE sector, as well as the interviewees completing the phase one survey and sharing three pieces of assessment documentation.

The structure of this conclusion is divided into five sections, beginning with a summary of the findings relating to the research questions and the resulting conclusions. Recommendations resulting from the findings are offered, followed by a discussion of the strengths and limitations of the research design.

Finally, suggestions are made regarding areas requiring further research and concluding thoughts are presented.

## **6.1 - Summary of Findings Relating to the Research Aim and Questions**

Teachers were found to have a range of purposes, practices and knowledge relating to assessing four-year-old children's learning, though these were found to be somewhat constrained in comparison to international recommendations for quality assessment in early childhood. Specific findings relating to each of these aspects are summarised next.

### **6.1.1 - Teachers' Purposes for Assessing Four-year-old Children's Learning**

Sharing information with others outside of the teaching team was believed to be the main purpose of assessment, and in particular sharing information with children and their families. The study results also showed that many teachers believed that a purpose of assessment was to share information with schools, though sharing the information was often viewed as being the parents' responsibility, and many barriers and challenges were identified in the actual practice of sharing this information. Beliefs about using assessment information for planning and for monitoring children's progress were evident, though these purposes were not found to be as important as sharing information with children and their families. The focus on children and families aligns with guidance provided to teachers by *Te Whāriki* and its emphasis on socio-cultural theory, as well as through the learning story framework (Carr, 1998a; 2001) and *Kei Tua o te Pae* (Ministry of Education, 2004/2007/2009). However, the significant emphasis placed on the purpose of assessment as being to share information with children and their families has the potential to

undermine the multiple purposes of assessment (e.g., formative uses, monitoring children's progress, sharing information and identifying additional needs). Teachers need to be supported to further develop their understandings of the multiple purposes of assessment, and the importance of these purposes, if they are to more fully understand assessment and its roles.

### **6.1.2 - Teachers Assessment Practices**

The study found that teachers mainly used informal assessment methods to collect information about children, primarily using informal observations and photographs. Sitting alongside the restricted range of assessment tools being used, teachers also reported a narrow focus in relation to the aspects of children's learning which were being assessed. Rather than focusing on all aspects of children's learning, teachers were primarily focusing on their interests, strengths and dispositions. As a result, children's knowledge, skills, working theories and the learning outcomes of *Te Whāriki* were not being paid the same attention by teachers. Assessment information was frequently documented in learning stories, with learning stories being widely used by teachers. The assessment of children's needs, and the documentation of this information, posed additional problems for teachers. The sharing of assessment information with schools was also viewed as being problematic by many, in part because it was parents who were expected to share the information and the varying assessment methods used within the two sectors.

Taken together, findings suggested that teachers were relying heavily on using learning stories to assess and to document children's learning. The formative aspects of learning stories, as they were originally developed, however, were

often overlooked or not well understood by teachers. Therefore, teachers' substantial reliance on learning stories combined with the narrow focus on interests, strengths and dispositions, is likely to be limiting the ways assessment information is gathered about children's holistic learning and development.

### **6.1.3 - Teachers' Knowledge about Assessment**

Teachers were knowledgeable about the range of assessment methods and tools available to them, though this did not mean that they were regularly using all of the methods and tools they were aware of. Teachers' knowledge of assessment was shown to be variable. Some teachers articulated sound understandings of assessment and assessment terminology, while others were not able to accurately describe or use assessment terms. A number of teachers used the term 'learning stories' as though it were interchangeable with assessment, despite learning stories being just one assessment method available to teachers. Teachers' knowledge of assessment was shown to be strongly influenced by their experiences in the education sector, although the majority of teachers believed that they would benefit from increased PD explicitly focused on assessment. The findings of this study suggest that while teachers have adopted learning stories as an assessment method, in some ways little has changed in relation to teachers' knowledge of assessment since the introduction of *Te Whāriki*, with some of the findings paralleling those of Bell (1990) and Wilks (1993). It is therefore suggested that many teachers' would benefit from further developing their knowledge of assessment in regards to: what assessment is; why it is important; the multiple purposes of assessment and; the range of assessment methods and tools which can and should be used to gather information about children's learning and development.

#### **6.1.4 - Special Consideration of Four-year Olds**

Most children transition to school around their fifth birthday (Peters, 2010), meaning that what happens for them as four-year-olds has the potential to impact on their transition from ECE to school. Despite the importance of effective transition to school being well established (Dockett & Perry, 2007), including in relation to assessment (ERO, 2015a ; Wright, 2010), prior to this study, there was limited research on the assessment of four-year-old children in New Zealand. This study thus provides some evidence of teachers' purposes, practices and knowledge of assessment, which can be used to strengthen and enhance the assessment of four-year-old children and in support of effective transition to school for children.

#### **6.2 Recommendations Arising from the Study**

The findings of this study suggest a number of implications related to assessing four-year-old children's learning in ECE. The primary implication is that change is needed in assessment purposes, practices, and knowledge within and across the sector. This change should include a broadening and extending of teachers' assessment purposes, practices, and knowledge. A key step in extending teachers' current beliefs is to further develop their knowledge of assessment and enhance their practices, as improving knowledge is a precursor to challenging their beliefs. It is through changes in knowledge that changes in beliefs can occur (Pajares, 1992), and, Beswick (2005) noted, "It is unreasonable to attempt to change the practice of teachers without changing their beliefs" (p. 40).

While the findings of this study have noted that resources and PD are not the biggest influencers on teachers' assessment knowledge and practices, this may be because of the limited supports which have been provided by the MoE in the last decade or so (Dalli, 2010; Mitchell, 2011). The development of such resources could provide the impetus to start assessment related conversations amongst teachers. Assessment focused resources could also signal to teachers that the status quo is no longer adequate by presenting alternate assessment methods which teachers could use within and alongside of the current focus on learning stories. Leadership needs to be shown by the MoE in the assessment space in a way that taps into ECE teachers' passion for and commitment to supporting children's learning.

Teachers' engagement in PD, specifically focused on assessment, will be an important step in supporting teachers' to further develop their assessment knowledge. As noted by Mitchell and Cubey (2003), for PD to be most effective it needs to build on from teachers' current knowledge and skills, while providing theoretical and content knowledge about alternate perspectives. When teachers analyse data relating to their own teaching with the support of a PD facilitator, discrepant data can be used to support the challenging of assumptions and the extension of thinking and knowledge (Mitchell & Cubey, 2003). Discrepant data is data which illuminates an aspect of teacher practice or child outcomes that is not congruent with existing personal views of that aspect.

Increasing teachers' assessment knowledge through PD is however on its own unlikely to be enough, as changes in beliefs and practices are likely to be incremental. To increase knowledge and shift practices, critical reflection is

required in order for real change to be achieved (Smyth, 1992). Teachers' assessment practices can be shifted through their introduction to new methods and approaches, which may help reveal discrepant data (Timperley & Robinson, 2001). Therefore, as knowledge is enhanced, beliefs can be transformed, and teachers' assessment practices are more likely to be altered to better mirror their revised knowledge and beliefs.

Change is also needed to help ensure that New Zealand ECE teachers' assessment purposes, practices and knowledge align with international research and literature relating to quality assessment in ECE. Key areas for change include increasing the quality of learning stories written, increasing the range of assessment methods used, and developing understandings relating to the multiple purposes of assessment and what constitutes assessment. Several processes will support teachers in achieving these changes, and these will now be outlined.

In-depth, sustained Ministry of Education funded PD that supports change in relation to assessment is required. Given that the Ministry has overall responsibility for ECE provision, it is their responsibility to ensure that all teachers are engaging in high quality assessment practices, as highlighted by repeated recommendations for Ministry funded PD by ERO (2007; 2013; 2015a). PD should be targeted to support teachers to develop their understandings of learning stories. Further calls for support for teachers in relation to assessment comes from Mitchell et al. (2015) who, in their report to the MoE, specified that "We suggest it is the right time for the development of further professional

resources, professional development and research focused on gathering, analysis, interpretation, aggregation, and use of data” (p. 7).

Given that learning stories are the most commonly used assessment method in the sector, it is critical that all teachers understand this method of assessment and are positioned to use them well. Learning stories have the potential to be powerful tools for exploring the integrated aspects of children’s learning and for sharing assessment information with children and families. However, the potential of learning stories lies in teachers’ abilities to effectively gather assessment information, observe children, analyse the information gathered and write high-quality narratives about children’s learning. Given the complexity of learning stories, and the sophisticated understandings and skills they require to be implemented well, teachers need ongoing support in this area of their assessment practice.

Alongside of further developing teachers knowledge and skills in learning stories, PD also needs to focus on supporting teachers to further develop their awareness of the range of assessment methods which they have available to them. As noted by Carr (2008) it is important that teachers are using the right assessment tool for what they are looking to assess. With this in mind, it is likely that teachers would benefit from further developing their knowledge of the range of assessment methods and tools available to them, as well as developing their knowledge of when to use each of these.

Given the restricted range of assessment methods being used, teachers need to know that assessment should involve the gathering of information through the

utilisation of a range of methods (Zhang, 2015) and that the assessment information gathered then needs to be synthesised and analysed (Brown, 2002), though the application of teachers' professional knowledge. As noted in Chapter One, it is the recurring threads of assessment involving the gathering and interpretation of information which underpinned the discussion of assessment within this study, and which teachers need further support to understand. Teachers also need to be supported to recognise that assessment information can be documented in different formats, not just as learning stories. Without a clear understanding of the process of assessment, and each of its phases, teachers are unlikely to be able to implement effective assessment practices. Such understanding should include knowledge of the need to use a range of assessment methods, over time, to collect information about children's learning and development (NAEYC, 2003; Snow & Van Hemel, 2008; The Gordon Commission, 2013). Teachers of course also need to take responsibility for progressing their own professional learning (Education Council, 2017) by actively developing their own assessment knowledge overtime. While ITE providers and the MoE certainly play a very important role in this space, teachers too are responsible at a personal level.

The findings of this study also suggest that ECE teachers often do not recognise many of the occasions when they are actually engaging in assessment. Instead, many consider the creation of a learning story to be the assessment. It is therefore critical that teachers are supported to develop their knowledge of assessment in a broader sense, including its multiple purposes and the multitude of ways that assessment information can be gathered and documented (McLachlan, Edwards et al., 2013). Teachers also need to be

supported to understand that they can intentionally gather and interpret assessment information at any time, not just when they are preparing to and writing a learning story. PD which helps teachers to know what constitutes assessment can help affect change.

Given that 31% (Education Counts, 2018c) of those working in the ECE sector in 2017 do not hold a recognised qualification, it is likely that these teachers' knowledge of assessment is more limited than their more qualified colleagues. Without a strong knowledge base, it is probable that unqualified teachers are engaging in assessment practices as modelled by their colleagues, and that their beliefs about assessment are also heavily influenced by those around them. Serious consideration needs to be given to how unqualified teachers are supported to engage in high-quality assessment practices. Relying on their learning about assessment from their colleagues is not enough given the findings of this study.

To further support change, reflective tools will need to be developed that support teachers to engage in in-depth and critical review of their own individual beliefs and practices, as well as at a team and setting level. As previously noted, teachers need to be supported to examine their practices in light of discrepant data (Timperley & Robinson, 2001). The development of reflective tools specifically focused on assessment relating to four-year-old children in the New Zealand context is timely for supporting teachers to move beyond accepting the status quo. As noted by Cherrington (2011), meaningful reflection into one's own practices requires high-level skills and knowledge. For this reason, it will be imperative that research based tools are developed that support teachers to

reflect on their beliefs and practices, including tacit beliefs, in a meaningful way that supports growth in knowledge and practice, rather than a continuation of existing beliefs and practices. Such tools may include using a reflective model such as that developed by Smyth (1992), along with the development of specific assessment focused reflective questions that support teachers to gather evidence of existing practices and critique these in light of the learning they have engaged in through PD. The reflective questions included in the revised version of *Te Whāriki* (MoE, 2017a) provide a starting point to support teachers' to engage in critical reflection, but further support will be required if deep and meaningful change is to occur.

Teachers also need time to engage in professional discussions with colleagues and other teachers about the assessment of four-year-old children in order to help effect change. Time for teachers to discuss assessment, both the assessment information gathered and the practices and purposes of assessment, is likely to be limited given that respondents indicated that time to assess and document children's learning were the two biggest barriers to the assessment of four-year-old children's learning. A lack of time limits opportunities for teachers to come together to share knowledge and ideas, which in turn impacts on their ability to develop shared understandings of assessment. Carr (1998a), in her final report to the MoE on the PACE project from which learning stories developed, had noted the need for teachers to be supported to engage in reflective practice to support the development of their assessment practices.

However, as Nuttall (2003, p. 179) has noted, “few centres provide conditions of service that allow teachers lengthy periods of non-contact time for professional learning and reflection”. While Nuttall’s statement was made more than a decade ago, given that ECE teachers’ working conditions have not improved in this time (Mitchell, 2011), it is unlikely that teachers currently have any more non-contact time. Teachers need MoE funded non-contact time to establish and engage in communities of practice focused on the development of assessment understanding and practices. Support is likely to be required to help ensure that these communities are functioning at a level which supports teachers’ learning and development in relation to assessment.

ITE providers will also need to strengthen and broaden the assessment related content encompassed within their programmes, including the assessment of four-year-old children, in order to help effect change. Such requirements would also need to apply to those qualifications aligned with parent-led services, namely Playcentre and Tino Rangatiratanga Whakaorakari Tohu. An audit of current assessment related content needs to be carried out across the range of service providers and differing qualifications, as little is currently known (Perkins, 2013), although ERO (2017) acknowledges variation across ITE programmes. The Education Council, as the accreditor of ITE programmes, needs to pay particular attention to assessment related content when approving and reapproving programmes, to ensure that the content is robust, balanced and based on current research and literature relating to assessment. Strengthening and broadening content relating to assessment within qualifications will support those coming into the sector in having a deeper and wider knowledge of assessment, which can in turn be shared with those in the

sector. Changes to assessment related content must however be accompanied by PD for those already engaged in the sector. Otherwise, graduates are likely to be required to assume the practices of those already teaching in the sector, rather than to effect positive change in relation to assessment.

For teachers to be supported to develop skills in effectively using a range of tools for collecting assessment information relating to four-year-olds, such a range of tools must be developed. Such tools, which may involve existing tools, must be developed based on research and evidence of their effectiveness. The current reliance by many teachers on using anecdotal observations, learning stories, photographs and perhaps video, highlights the narrow range of tools available to teachers. A broader range of tools need to be developed, in alignment with current ECE philosophy, theory and research, and disseminated with teachers so that information can be collected through a wider range of means. The development of such tools will also support teachers to recognise that assessment can occur in a multitude of ways, and that assessment is more than the production of a learning story.

A simple way in which this could occur is for the 'Assessment Online' section of Te Kete Ipurangi (TKI), the MoE website housing resources for school teachers, to be expanded to include the ECE sector. As well as the development of a broader range of ECE specific assessment tools, ECE teachers should be supported to better understand the assessment tools used by NE teachers. In an ECE sector with sound comprehension of assessment, some of the early school assessment tools could be adapted and used in the ECE sector and vice versa with school teachers using approaches and methods often seen in ECE.

Rather than assessment in the ECE and school sectors being seen as discrete and unconnected, greater synergies should be fostered to support assessment continuity between the sectors. Building alliance and alignment between school and ECE assessment practices fosters opportunities for the assessment strengths of each sector to be utilised. Through MoE funded PD, and through the Community of Learner's project, teachers from both sectors need to be supported to develop nuanced understandings and to see the value of the assessment practices used within each sector. Both sectors have something to learn from each other and opportunities for reciprocal learning between the sectors should be fostered. Teachers need to use a range of assessment methods which are fit for purpose to assess children's learning across the strands, goals and learning outcomes of *Te Whāriki*.

Before concluding, it is important to once again note that the participants in this study were all qualified and registered teachers. It can safely be presumed that the findings presented in this study present a more positive picture than is likely to exist within the sector as a whole. Nonetheless, the recommendations for change and support for teachers are not intended to be a critique of teachers, rather a statement that reflects the complexity of assessment and the supports needed to engage in on-going high-quality assessment for teaching and learning.

### **6.3 - Strengths and Limitations**

As with any research design, this study has its strengths and limitations. A main strength was the application of a mixed methods design, which allowed for the strengths of both qualitative and quantitative research methods to be utilised, while minimising the weaknesses (Onwuegbuzie & Johnson, 2006) and was

appropriate for the exploration of such a complex topic. Implementing a nationwide survey supported the inclusion of perspectives from a wide range of people (Creswell, 2012), and meant that the findings could be compared with existing surveys. The use of key informant interviews allowed for the collection of in-depth information from teachers who were especially knowledgeable about the topic (Wolcott, 1988), and from the interviewees own viewpoint (Turner, 2010). Implementing a two-phase sequential design also provided the opportunity to gather additional information from interviewees that sought to explain the phase one findings.

Having the phase two interviewees share examples of their assessment documentation was another strength of the study, as this provided evidence of their actual practices rather just reported practices. This was particularly useful given Stuart et al.'s (2008) earlier findings of their being a mismatch between teachers' espoused theories and their actual practices. Because the interviewees also completed a copy of the phase one survey, it was also possible to identify aspects of convergence and divergence between the phase one and two responses. This aspect of the study could have been strengthened had I asked to view the examples prior to the interview, which would have enhanced my ability to ask more specific and considered questions about the assessment documentation examples.

While a sufficient number of survey responses were gathered for the purposes of this study, as an overall proportion of the sector the response rate was low. Given that more than 27,000 teachers work in teacher-led services and an unknown, but smaller number, work in parent-led services, the results are not

representational of the views of the ECE sector as a whole. Because respondents self-selected themselves into the study, those who participated are likely to have done so because they were interested in the topic, or because they had a particular view they wanted to share. Those who respond to a survey are likely to have different responses from those who choose not to respond (Fraenkel et al., 2012). The survey responses therefore embody the views of those who choose to respond, and these views may differ from those held by other groups within the sector. It is important, however, to acknowledge that non-responses were problematic as those who do not participate in the survey could be different from those who do and could therefore potentially bias the survey findings (Ary, 2014; Cohen et al., 2011; Jacob & Jacob, 2012; Tuckman, 1978). Using the demographic information contained in the survey it was possible to make demographic comparisons with what is currently known about teachers in the ECE sector using the Annual ECE Census Report 2015 (Education Counts, 2015). Although the overall response rate to the survey was low, the actual number of responses is reasonably large. Given the lack of existing research, the findings based on the responses received will make a useful contribution to our knowledge about teachers' assessment practices in the New Zealand ECE sector, although the findings probably represent the population of teachers who are interested in assessment.

The MoE's directory for early childhood services was the source for the email addresses used to contact potential survey respondents. A number of challenges were identified in using this list, including it being incomplete and inaccurate. There is also no way of knowing whether the invitation to participate in the survey was passed on to all of those who were eligible. Given

the larger than expected proportion of responses that came from those in leadership positions, it is possible that others in the setting were not aware of the invitation to participate. The high response rate from those in leadership positions is also likely to have affected the survey findings, as leaders usually spend less time in contact with children and therefore less time involved in the assessment process.

While the Kindergarten sector was over-represented as a service type in phase one, Te Kōhanga Reo was significantly under-represented. The lower response rate from respondents working within Te Kōhanga Reo is not unexpected given that email does not necessarily align well with Māori cultural values, which favours 'kanohi ki te kanohi', or face to face contact (Graham, 2003). Responses from teachers working in other minority service types, such as Pasifika based settings, Montessori, Steiner and Hospital-based services, were also low. This fact is however not immediately apparent as these service types are contained within the broader 'Education and Care' sector. Actual responses did not mirror the actual composition of the sector and this was particularly so for the smaller sector types.

The limitations identified within phase two also relate to representativeness, as the findings cannot be generalised. The interviews were focused on exploring the perspectives across the range of service types, though limitations apply in having individuals representing service types. It also needs to once again be noted that not all service types were represented in the study, despite my best efforts. The key informants were considered to be experienced and accomplished teachers by those who had identified them. As such, the key

informants are themselves not representative of the sector itself, which includes teachers with a variety of levels of experience and expertise. Two of the key informants were personally known to me prior to the interview, though it is unlikely that this connection influenced the information shared as I had not seen them more than once in the last 10 years. Key informant interviews were not carried out with teachers from all service types within the study region, with Te Kōhanga Reo, Hospital-based, and a Cook Island setting being omitted.

#### **6.4 - Suggestions for Future Research**

The constrained assessment practices highlighted within this study and the subsequent need for change, along with the limited prior research, highlight possible future research. Such research includes:

- Further exploration of ECE teachers' assessment knowledge in relation to four-year-old children, identifying examples of effective practice.
- Explore New Entrant teachers' assessment purposes, practices and knowledge.
- The exploration of how current assessment methods meet the needs of all learners, and particularly those with additional needs.
- Investigating the development of a broader range of tools for ECE teachers to use to collect, analyse and report assessment information.
- The exploration of the assessment related content within ITE programmes.
- Examining how newly qualified teachers enact what they learned about assessment in their ITE programme in the ECE sector.

- Investigating the development of Professional Development and Professional Learning models that foster sustained improvement in assessment practices, for both qualified and unqualified teachers.
- Examining ways to align and share assessment knowledge and practices between the ECE and school sectors to enhance and support continuity between the two sectors.

## **6.5 - Concluding Thoughts**

In conclusion, this study aimed to explore New Zealand early childhood teachers' purposes, practices, and knowledge in relation to assessing four-year-old children's learning. The findings across both phases of the research have highlighted that teachers' knowledge of and beliefs about assessment and its purposes which underpin their practices is varied, but can be characterised as constrained. Given the importance of assessment for four-year-olds there is a need to challenge and extend assessment purposes, practices and knowledge to help develop a culture of assessment which aligns with the principles of *Te Whāriki* and contemporary ECE philosophy, whilst also aligning with the principles of effective assessment for young children (Bagnato, 2007). This study should act as a catalyst for further research into the issues of effective assessment practice in the New Zealand ECE context.

The recent revision of New Zealand's early childhood curriculum, *Te Whāriki* (MoE, 2017a) provides an ideal impetus to also refresh the assessment practices used by teachers as they seek to implement the curriculum. Shifts in emphasis are evident within the revised document, such as the increased focus on intentional teaching and the broadening of the assessment tools referred to in the document. It is therefore timely to ensure that all teachers have the

necessary knowledge and tools required to engage in effective assessment practices.

I set out to study this topic because of the important role assessment plays in the teaching and learning process. Further motivation resulted from ERO's repeated concerns about the quality of ECE teacher's assessment practices, the limited research on the topic and my own experiences and challenges in relation to assessing four-year-old children's learning. Through the completion of this study I have found that teachers are interested in talking about assessment and committed to supporting children's learning. To help teachers harness the power of effective assessment in teaching and learning there is however a need for change. Teachers, the Ministry of Education and the Education Council will need to work collaboratively to enhance teachers' assessment purposes, practices and knowledge in regards to four-year-old children in order to optimise their learning and support continuity between ECE and school.





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## Appendices

### Appendix A Ethics Approval



1 May 2015

Monica Cameron  
Institute of Education  
Massey University  
Albany

Dear Monica

**HUMAN ETHICS APPROVAL APPLICATION – MUHECN 15/002**  
**Assessing four year old children's learning**

Thank you for your application. It has been fully considered, and approved by the Massey University Human Ethics Committee: Northern.

Approval is for three years. If this project has not been completed within three years from the date of this letter, a re-approval must be requested.

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

Yours sincerely

A handwritten signature in black ink, appearing to be "A. Chystell".

Dr Andrew Chystell  
Acting Chair  
Human Ethics Committee: Northern

cc  
Professor Claire McLachlan  
Institute of Education  
Massey campus

Dr Peter Rawlins  
Institute of Education  
Massey campus

Professor John O'Neill  
Director of Institute of Education  
Massey campus

Tē Kōwhiri  
ki Pōwhiri

Research Ethics Office  
Private Bag 102 904, Auckland, 0745, New Zealand Telephone +64 9 414 0800 ext 43278 [humanethicsnorth@massey.ac.nz](mailto:humanethicsnorth@massey.ac.nz)

**Appendix B - Phase One Email invitation for Survey Participants in Teacher-led Services**

**Email Title: Assessing Four-Year-Old Children's Learning**

Kia ora my name is Monica Cameron and I am currently working on my Doctorate of Education at Massey University. I have been an early childhood educator for many years, sparking a real interest in how we assess children's learning, and leading to the present study.

If you are a qualified and registered teacher working with four year old children I would like to invite you to participate in an online questionnaire about your beliefs, understandings and practices around assessing four year old children's learning. If you received this email as a result of your being the contact person for your organisation could you kindly pass this email on to teachers' so they can participate if they would like too. I would really appreciate teachers' contribution to this research in the hope of adding to our knowledge of this important aspect of early childhood education.

If you are interested in participating, please go to the following link where you will find more information outlining the nature of this research, as well as your rights as a participant prior to starting the survey.

If you wish to complete the survey please click on or copy and paste the following link:-

<https://www.research.net/s/T3BCWX6>

The survey will be open from 18<sup>th</sup> May to 29<sup>th</sup> June and will take approximately 20 – 30 minutes.

Thank you for your time.

Kind regards

Monica Cameron

**Appendix C - Phase One Email invitation for Survey Participants in Parent-led Services**

**Email Title: Assessing Four-Year-Old Children's Learning**

Kia ora my name is Monica Cameron and I am currently working on my Doctorate of Education at Massey University. I have been an early childhood educator for many years, sparking a real interest in how we assess children's learning, and leading to the present study.

If you are educating children in a parent-led service, working with four year old children, and have completed Playcentre Level 3 or above, Tino Rangatiratanga Whakapakari Tohu, or you are a qualified and registered educator, I would like to invite you to participate in an online questionnaire about your beliefs, understandings and practices around assessing four year old children's learning. If you received this email as a result of your being the contact person for your organisation could you kindly pass this email on to educators' so they can participate if they would like too

I would really appreciate your contribution to this research in the hope of adding to our knowledge of this important aspect of early childhood education. If you are interested in participating, please go to the following link where you will find more information outlining the nature of this research, as well as your rights as a participant prior to beginning the survey.

If you wish to complete the survey please click on or copy and paste the following link:- <https://www.research.net/s/T3BCWX6>

The survey will be open from 18<sup>th</sup> May to 29<sup>th</sup> June and will take approximately 20 - 30 minutes to complete.

Thank you for your time.

Kind regards

Monica

**Appendix D - Phase One Letter of Invitation for Participants in Hospital-based Services**

Dear

Kia ora my name is Monica Cameron and I am currently working on my Doctorate of Education at Massey University. I have been an early childhood educator for many years, sparking a real interest in how we assess children's learning, and leading to the present study.

If you are a qualified and registered teacher working with four year old children I would like to invite you to participate in an online questionnaire about your beliefs, understandings and practices around assessing four year old children's learning. If you received this email as a result of your being the contact person for your organisation could you kindly pass this email on to teachers' so they can participate if they would like too. I would really appreciate teachers' contribution to this research in the hope of adding to our knowledge of this important aspect of early childhood education.

If you are interested in participating, please go to the following link where you will find more information outlining the nature of this research, as well as your rights as a participant prior to starting the survey.

If you wish to complete the survey please copy and use the following link:-

<https://www.research.net/s/T3BCWX6>

The survey will be open from 18<sup>th</sup> May to 29<sup>th</sup> June and will take approximately 20 – 30 minutes.

Thank you for your time.

Kind regards

Monica Cameron

## **Appendix E- Phase One Advertisement for Education Gazette and Child Forum**

Qualified and registered educators and educators in parent-led services who have completed Playcentre Level 3 or above, Tino Rangatiratanga Whakapakari Tohu or who are qualified and registered, are invited to participate in an online questionnaire about their beliefs, understandings and practices around assessing four-year-old children's learning. To complete the survey please visit <https://www.research.net/s/T3BCWX6> where there is more information about the research and your rights as a participant.

## Appendix F- Phase One Survey

### Information about the Survey and your Rights as a Participant

Kia ora my name is Monica Cameron and I am currently completing a Doctorate of Education at Massey University. Having been involved in early childhood education for nearly 20 years, I am very interested in how educators assess young children's learning and specifically four year old children's learning. My research will explore **educators' understandings, beliefs and practices around assessing four year old children's learning.**

To do this, I will be surveying and talking with people who teach in both parent-led and teacher-led early childhood services. The research will involve two phases; this online, nationwide survey, followed by interviews with educators who work in different types of early childhood services to explore the topic in greater detail. **If you are a qualified and registered educator working with four year old children in a teacher-led service or, you are educating four year old children in a parent-led service and have completed Playcentre Level 3 or above, Tino Rangatiratanga Whakapakari Tohu or are a qualified and registered educator,** I would like to invite you to participate in this online questionnaire about your beliefs, understandings and practices around assessing four year old children's learning.

I have chosen an online survey because it allows for data to be gathered from a wide range of services to help build a full and rich picture about educators' beliefs, understandings and practices. Your participation in the survey will involve completing this online questionnaire, which should take **approximately 20-30 minutes** to complete. This online survey is entirely anonymous and you will not be required to provide any identifying information about yourself or the early childhood setting in which you are involved. All of the data gathered for this study will be kept in a secure and confidential manner. The data and subsequent findings will only be used for the purposes of this doctoral research and any publications or presentations which result from it.

It is important to note that you are under **no obligation to accept this invitation.** You also have the right to decline to answer any particular question. As the questionnaire is anonymous, it is not possible for individual responses to be withdrawn from the study once the questionnaire is submitted. **Please note that completing and submitting this survey implies that you have given consent for your responses to be included in the data analysis.**

Please feel free to contact me at any time if you have any questions in relation to this research.

Kind regards  
Monica Cameron  
(06) 356 9099 ext 84393 or [m.j.cameron@massey.ac.nz](mailto:m.j.cameron@massey.ac.nz)

Alternatively, you may contact either of my supervisors:

Professor Claire McLachlan  
Institute of Education, Massey University  
(09) 414 0800 ext 43518  
[C.J.McLachlan@massey.ac.nz](mailto:C.J.McLachlan@massey.ac.nz)

Dr Peter Rawlins  
Institute of Education, Massey University  
(06) 356 9099 ext 84403  
[P.Rawlins@massey.ac.nz](mailto:P.Rawlins@massey.ac.nz)

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 15/002. If you have any concerns about the conduct of this research, please contact Dr Andrew Chrystall, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 43317, email [humanethicsnorth@massey.ac.nz](mailto:humanethicsnorth@massey.ac.nz).

---

1. Which title best describes your current main role in the setting?

- Co-ordinating supervisor
- Supervisor
- Head Teacher
- Assistant Supervisor
- Teacher/Educator
- Reliever
- Other (please specify)

---

2. What service type are you currently working in?

- Playcentre
- Te Kōhanga Reo
- Māori Immersion Setting
- Pasifika Language Nest - Fijian
- Pasifika Language Nest - Cook Island Māori
- Pasifika Language Nest - Samoan
- Pasifika Language Nest - Nuiean
- Pasifika Language Nest - Tongan
- Pasifika Language Nest - Tokolauan
- Montessori
- Rudolf Steiner
- Hospital-Based Service
- Correspondence School
- Kindergarten
- Privately owned Education and Care service
- Corporately owned Education and Care service
- Community based Education and Care service
- Other (please specify)

3. Please indicate which service types you have previously worked in (Please tick all that apply):

- Playcentre
- Te Kōhanga Reo
- Māori Immersion Setting
- Pasifika Language Nest - Fijian
- Pasifika Language Nest - Cook Island Māori
- Pasifika Language Nest - Samoan
- Pasifika Language Nest - Niuean
- Pasifika Language Nest - Tongan
- Pasifika Language Nest - Tokolauan
- Montessori
- Rudolf Steiner
- Hospital-Based Service
- Correspondence School
- Kindergarten
- Privately owned Education and Care service
- Corporately owned Education and Care service
- Community based Education and Care service
- Only in current service type
- Other (please specify)

4. When did you complete your early childhood qualification? If you have more than one early childhood qualification please indicate when you completed the first one.

- |                                     |                                   |                                   |
|-------------------------------------|-----------------------------------|-----------------------------------|
| <input type="radio"/> Prior to 1965 | <input type="radio"/> 1981 - 1985 | <input type="radio"/> 2001 - 2005 |
| <input type="radio"/> 1966 - 1970   | <input type="radio"/> 1986 - 1990 | <input type="radio"/> 2006 - 2010 |
| <input type="radio"/> 1971 - 1975   | <input type="radio"/> 1991 - 1995 | <input type="radio"/> 2011 - 2015 |
| <input type="radio"/> 1976 - 1980   | <input type="radio"/> 1996 - 2000 |                                   |

5. What is your highest qualification?

- Playcentre Qualification (Level 3 or higher)
- 2 year Diploma (e.g. Kindergarten Diploma, PIECCA Diploma etc)
- 3 year Diploma of Teaching (ECE)
- Bachelor of Education (Teaching) (ECE)
- Bachelor degree in another discipline
- Graduate Diploma of Teaching (ECE)
- Post-graduate level qualifications (e.g. PhD, Masters, Honours, Post-graduate diploma etc)
- Tino Rangatiratanga Whakaoakari Tohu
- Other (please specify)

6. How many full years have you been teaching in ECE in total?

- |   |                             |                                  |
|---|-----------------------------|----------------------------------|
| <input type="radio"/> This is my first year | <input type="radio"/> 5     | <input type="radio"/> 16-20      |
| <input type="radio"/> 1                     | <input type="radio"/> 6     | <input type="radio"/> 21-25      |
| <input type="radio"/> 2                     | <input type="radio"/> 7     | <input type="radio"/> 26-30      |
| <input type="radio"/> 3                     | <input type="radio"/> 8-10  | <input type="radio"/> 31-40      |
| <input type="radio"/> 4                     | <input type="radio"/> 11-15 | <input type="radio"/> 41 or more |

7. Describe the ages of the children in the setting you currently work in:

- All four year olds
- 3 - 5 year olds
- 2 - 5 year olds
- 1 - 5 year olds
- Birth - 5 year olds

\* 8. Which terms best describe your current work environment? (You may choose up to five descriptors):

- |   |  |
|---|--|
| <input type="checkbox"/> Open to new learning | <input type="checkbox"/> Repetitive          |
| <input type="checkbox"/> Innovative           | <input type="checkbox"/> Creative            |
| <input type="checkbox"/> Challenging          | <input type="checkbox"/> High staff turnover |
| <input type="checkbox"/> Uninteresting        | <input type="checkbox"/> Reflective          |
| <input type="checkbox"/> Rewarding            | <input type="checkbox"/> Overwhelming        |
| <input type="checkbox"/> Low morale           | <input type="checkbox"/> Collaborative       |

9. Think about the word assessment. What comes to mind? List as many ideas as you can think of:

10. How regularly do you use the following methods to gather information about children's learning?

	Once a week or more often	Every two to four weeks	Every three months	Every six months	Once a year	Never
Time Sample (Observations carried out at fixed regular intervals of time)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Event Recording (Recording the number of times a behaviour occurs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Running Record (A detailed narrative of children's actions as they are observed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scatter Plots/Sociogram (A graphic representation of children's movements around a setting)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incident/Frequency Sampling (Recording how many times a behaviour occurs within a set timeframe)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Published Tests (A standardised test which is scored in a consistent way e.g. Burt Word test)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Published Checklists (Publically available checklists e.g. Kid Sense child development checklist)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conversations with Children (A narrative or audio recording of conversation with children)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Audio Recordings (An audio recording of children)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Once a week or more often	Every two to four weeks	Every three months	Every six months	Once a year	Never
Video Recordings (A video recording of children)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Photographs (Photographs of children engaged in play and learning)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Own Tests (Tests developed by the setting or a teacher)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Own Checklists (Checklists developed by the setting or a teacher)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anecdotal/Informal Observations (Concise observations written after the event)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Examples of Children's Work (Including artwork and writing samples)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consultation with Whānau (Conversations with Whānau - formal and informal)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discussion with Outside Professionals (Conversations with outside agencies e.g. Group Special Education)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discussion amongst Educators (Conversations between team members about children and their learning)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

11. How many individual (i.e. not group stories) Learning Stories did you write in the last four weeks of teaching?

- |                               |                               |                                  |
|-------------------------------|-------------------------------|----------------------------------|
| <input type="radio"/> 1 - 5   | <input type="radio"/> 16 - 20 | <input type="radio"/> 31 - 35    |
| <input type="radio"/> 6 - 10  | <input type="radio"/> 21 - 25 | <input type="radio"/> 26 - 40    |
| <input type="radio"/> 11 - 15 | <input type="radio"/> 26 - 30 | <input type="radio"/> 41 or more |

12. How much time do you usually spend formally assessing children in a week?

- |                                       |                                   |                                       |
|---------------------------------------|-----------------------------------|---------------------------------------|
| <input type="radio"/> 0 - 1/2 an hour | <input type="radio"/> 2 - 3 Hours | <input type="radio"/> 5 - 6 Hours     |
| <input type="radio"/> 1/2 - 1 hour    | <input type="radio"/> 3 - 4 Hours | <input type="radio"/> 6 Hours or more |
| <input type="radio"/> 1 - 2 Hours     | <input type="radio"/> 4 - 5 Hours |                                       |

13. How many times did you formally document assessment information (including written or photographs) on the day you were last teaching children?

- |                               |                               |                                  |
|-------------------------------|-------------------------------|----------------------------------|
| <input type="radio"/> 1 - 5   | <input type="radio"/> 16 - 20 | <input type="radio"/> 31 - 35    |
| <input type="radio"/> 6 - 10  | <input type="radio"/> 21 - 25 | <input type="radio"/> 36 - 40    |
| <input type="radio"/> 11 - 15 | <input type="radio"/> 26 - 30 | <input type="radio"/> 41 or more |

14. How recently have you looked at one, or more, of the books within Kei Tua o te Pae, Assessment for Learning Early Childhood Exemplars (Ministry of Education, 2004/2007/2009)?

- |                                      |   |   |
|--------------------------------------|---|---|
| <input type="radio"/> Last week      | <input type="radio"/> Last three months | <input type="radio"/> Last two years        |
| <input type="radio"/> Last two weeks | <input type="radio"/> Last six months   | <input type="radio"/> Longer than two years |
| <input type="radio"/> Last month     | <input type="radio"/> Last year         | <input type="radio"/> Never                 |

15. What is the usual time frame for completing the assessment documentation of children's learning?

- |                                  |                                   |
|----------------------------------|-----------------------------------|
| <input type="radio"/> Same day   | <input type="radio"/> 2 - 3 Weeks |
| <input type="radio"/> 1 - 2 days | <input type="radio"/> 1 month     |
| <input type="radio"/> 3 - 5 days | <input type="radio"/> Longer      |
| <input type="radio"/> 1 week     |                                   |

16. Please explain why you usually complete learning stories in the time frame that you do:

17. Please rank the following potential barriers to your ability to assess children's learning:

	Most impact	Second most impact	Third most impact	Fourth most impact	Least impact	N/A
Time to assess children's learning	<input type="radio"/>					
Knowledge of assessment practices	<input type="radio"/>					
Access to technology to complete assessment documentation	<input type="radio"/>					
Amount of non-contact time to complete assessment documentation	<input type="radio"/>					
Access to appropriate assessment tools/strategies	<input type="radio"/>					

18. On average how regularly do you use the assessment information you gather about children:

	Once a week or more often	Every two to four weeks	Every three months	Every six months	Once a year	Never
To monitor children's progress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To develop individual plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To develop a relevant programme for individual children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To develop a relevant programme for the group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To write learning stories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To provide feedback for parents and whānau	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To provide feedback for children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To provide information to school/kura when children enrol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To evaluate the programme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To evaluate teaching practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

19. On average how often do you use the following ways to communicate with parents and whānau about their child's learning?

	Once a week or more often	Every two to four weeks	Every three months	Every six months	Once a year	Never	Not applicable
Informal contact with parent and whānau at service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formal discussions with parents and whānau	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sharing children's portfolio's or learning stories with parents and whānau	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written reporting to parents and whānau	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

20. On average in what ways and how often are parents and whānau involved in the assessment process in your setting?

	Once a week or more often	Every two to four weeks	Every three months	Every six months	Once a year	Never	Not applicable
Parents and whānau add their perspective to learning stories written by teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parents and whānau provide 'home' learning stories, commentary and/or information for their child's portfolio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parents and whānau have easy access to their child's portfolio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parents and whānau regularly talk informally with teachers about their child and their progress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information shared by parents and whānau is written into learning stories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parent and whānau-teacher meetings to discuss children's progress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

21. Do children have individual assessment portfolios or profiles at your setting?

Yes

No

22. In what ways and how often are children in your service involved in contributing to their own assessment portfolios?

	Once a week or more often	Every two to four weeks	Every three months	Every six months	Once a year	Never	Not applicable
Children decide what should be recorded in their assessment portfolios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children make their own judgements about their achievements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children revisit their assessment portfolios, with or without a teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children correct their assessment portfolios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children use earlier work in their assessment portfolios to judge current success or progress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children may use resources (e.g. a completed puzzle) to provide feedback about their performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children set goals for their future learning based on evidence in their portfolios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

23. In your own words why do you believe, or not, that the assessment of four year old children's learning is important?

24. In your own words how do you believe four year old children's learning should be assessed?

25. The Ministry of Education (2011) says that there is a need to move towards a broader focus within assessment to include assessment of, for and as learning. In your own words, describe how each of these purposes is used in your assessment practices:

Assessment of learning

Assessment as learning

Assessment for learning

26. Please indicate where your knowledge of assessment in ECE has come from:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
From my initial ECE qualification	<input type="radio"/>				
Professional readings	<input type="radio"/>				
Professional development	<input type="radio"/>				
Experiences in education	<input type="radio"/>				
Discussion with colleagues and other educators	<input type="radio"/>				
Ministry of Education resources	<input type="radio"/>				
From additional study after the completion of my initial qualification	<input type="radio"/>				

27. What role has mentoring and/or support from more knowledgeable or experienced educators played in developing your understandings of assessment?

Not important    
  Somewhat important    
  Important    
  Very important    
  Critically important

28. What do you believe are the main purposes of assessment? Please rank the following five statements in relation to their importance to you:

	Most important	Second most important	Third most important	Fourth most important	Least important	N/A
To give feedback on learning to the child	<input type="radio"/>					
To monitor children's progress	<input type="radio"/>					
To inform planning and curriculum	<input type="radio"/>					
To share children's learning with their parents and whānau	<input type="radio"/>					
For accountability to outside agencies	<input type="radio"/>					

29. Approximately how many hours of the professional development have you received in the last 12 months was related to assessment?

Under 2 hours    
  9 - 11 hours    
  21 - 30 hours  
 3 - 5 hours    
  12 - 14 hours    
  31 hours or more  
 6 - 8 hours    
  15 - 20 hours

30. Please indicate the extent to which you agree with the following statements:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I believe I have a strong understanding of a range of assessment types	<input type="radio"/>				
I believe assessment is part of good teaching	<input type="radio"/>				
I do not believe it is important to regularly assess children's learning	<input type="radio"/>				
I regularly use assessment information to plan for children's future learning	<input type="radio"/>				
I believe that by using assessment, teachers can track children's progress	<input type="radio"/>				
I believe I would benefit from additional professional learning in relation to assessment	<input type="radio"/>				
I believe have enough time in my working week to assess and document children's learning	<input type="radio"/>				
I do not believe teachers need extensive knowledge of the curriculum to carry out good assessment	<input type="radio"/>				
I believe that assessment helps teachers identify the particular learning needs of any child	<input type="radio"/>				
I believe I effectively assess children's learning	<input type="radio"/>				
I believe that standardised tests are a valid form of assessment	<input type="radio"/>				
I believe teachers need to know children well to carry out good assessment	<input type="radio"/>				
I do not believe that observing children is a valid form of assessment	<input type="radio"/>				
I believe that setting owners/managers/leaders should monitor teachers' assessment practices	<input type="radio"/>				
I use assessment information to determine if children have met developmental milestones	<input type="radio"/>				
I believe most ECE teachers understand how to construct good assessments	<input type="radio"/>				
I believe most teachers do too many assessments	<input type="radio"/>				

31. What is your gender?

- Female
- Male

32. What is your age?

- Under 30
- 30 - 39
- 40 - 49
- 50 - 59
- 60 or over

---

33. What are the ethnic group(s) with which you identify? Please select as many as apply:

- New Zealand European
- Māori
- Samoan
- Cook Island Māori
- Tongan
- Niuean
- Chinese
- Indian
- Other

Other (please specify)

---

34. Is there anything else you would like to say about assessment in the ECE sector which has not been covered by this questionnaire?

Thank you for taking the time to complete this survey. If you have any queries you can contact me at [m.j.cameron@massey.ac.nz](mailto:m.j.cameron@massey.ac.nz).

**Appendix G - Phase One Survey Question Response Rates**

<b>Question Number</b>	<b>Question Sub-sections (where applicable)</b>	<b>Number of Respondents</b>
Question One		376
Question Two		379
Question Three		376
Question Four		375
Question Five		373
Question Six		379
Question Seven		379
Question Eight		379
Question Nine		
Question Ten	Section 1	331
	Section 2	329
	Section 3	331
	Section 4	321
	Section 5	322
	Section 6	319
	Section 7	320
	Section 8	361
	Section 9	327
	Section 10	335
	Section 11	371
	Section 12	318
	Section 13	321
	Section 14	353
	Section 15	367
	Section 16	365
	Section 17	346
	Section 18	353
	Section 19 (Other)	59
Question Eleven		370
Question Twelve		364
Question Thirteen		357
Question Fourteen		363
Question Fifteen		363
Question Sixteen		
Question Seventeen	Section 1	317
	Section 2	282
	Section 3	283
	Section 4	325
	Section 5	318
Question Eighteen	Section 1	335
	Section 2	334
	Section 3	332
	Section 4	333
	Section 5	336
	Section 6	335

	Section 7	322
	Section 8	335
	Section 9	331
	Section 10 (Other)	21
Question Nineteen	Section 1	337
	Section 2	325
	Section 3	337
	Section 4	327
	Section 5 (Other)	53
Question Twenty	Section 1	330
	Section 2	324
	Section 3	333
	Section 4	333
	Section 5	332
	Section 6	313
	Section 7 (Other)	38
Question Twenty One		330
Question Twenty Two	Section 1	305
	Section 2	307
	Section 3	317
	Section 4	297
	Section 5	311
	Section 6	306
	Section 7	293
	Section 8 (other)	38
Question Twenty Three		
Question Twenty Four		
Question Twenty Five		
Question Twenty Six	Section 1	289
	Section 2	287
	Section 3	292
	Section 4	293
	Section 5	289
	Section 6	266
Question Twenty Seven		297
Question Twenty Eight	Section 1	284
	Section 2	288
	Section 3	285
	Section 4	291
	Section 5	285
Question Twenty Nine		294
Question Thirty	Section 1	292
	Section 2	292
	Section 3	288
	Section 4	292
	Section 5	291
	Section 6	290

	Section 7	290
	Section 8	287
	Section 9	291
	Section 10	292
	Section 11	290
	Section 12	293
	Section 13	291
	Section 14	291
	Section 15	292
	Section 16	291
	Section 17	291
Question Thirty One		296
Question Thirty Two		295
Question Thirty Three		293
Question Thirty Four		82

## Appendix H - Phase Two Information Letter for Organisations

Kia ora my name is Monica Cameron and I am currently working on my Doctorate of Education at Massey University. I have been an early childhood educator for many years, sparking a real interest in how we assess children's learning, and leading to my undertaking research on this topic.

The research will involve two phases. Phase one, an online national survey, and; Phase two, interviews with educators in different service types who are working with four year olds. The educators interviewed will also be asked to complete a paper copy of the survey and to share three piece of assessment documentation as evidence of their practices.

I am asking your permission to interview an accomplished and experienced educator working for XXXXXXXXXXXX. Any suggestions regarding suitable people to approach would be much appreciated. I will invite them to participate in a face to face interview, which should take no longer than one hour. The interview will focus on their beliefs, understandings and practices in relation to assessment in early childhood education. They will also be asked to complete a copy of the survey which has been used in Phase one and to bring this to the interview.

The interviewee will also be asked to bring three pieces of anonymised assessment documentation to the interview to discuss with me. This documentation will be discussed during the interview and given to me as part of the data collection process. The assessment documentation will be anonymised to protect children's and teachers' identities. The interview will happen at a time and place that is mutually convenient and will be audio recorded to enable an accurate record of the discussion. The audio recording will later be transcribed, before being given to the interviewee for checking and approval prior to it being used in the data analysis.

All of the data gathered for this study will be kept in a secure and confidential manner. The data and subsequent findings will only be used for the purposes of this doctoral research and any publications or presentations which result from it. Confidentiality and anonymity will be maintained at all times and no identifying characteristics of the interviewee or your organisation will be included in the

study. A summary of findings will be provided to you at the completion of the research.

It is important to note that you are under no obligation to accept this invitation.

Those who do choose to participate have the right to:

- Decline to answer any particular question;
- Ask for the audio recorder to be turned off at any time during the interview;
- Withdraw from the study prior to the July 2016;
- Ask any questions about the study at any time during participation;
- Provide information on the understanding that your name will not be used; and
- Be given access to a summary of the project findings when it is concluded.

Please feel free to contact me at any time if you have any questions in relation to this research.

Kind regards

Monica Cameron

(06) 356 9099 ext. 84393 or [m.j.cameron@massey.ac.nz](mailto:m.j.cameron@massey.ac.nz)

Alternatively, you may contact either of my supervisors:

- Professor Claire McLachlan  
Institute of Education, Massey University  
(09) 414 0800 ext. 43518  
[C.J.McLachlan@massey.ac.nz](mailto:C.J.McLachlan@massey.ac.nz)
- Dr Peter Rawlins  
Institute of Education, Massey University  
(06) 356 9099 ext. 84403  
[P.Rawlins@massey.ac.nz](mailto:P.Rawlins@massey.ac.nz)

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 15/002. If you have any concerns about the conduct of this research, please contact Dr Andrew Chrystall, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 43317, email [humanethicsnorth@massey.ac.nz](mailto:humanethicsnorth@massey.ac.nz).

## **Appendix I - Phase Two Information Sheet for Individuals in Teacher-led Services**

Kia ora my name is Monica Cameron and I currently working on my Doctorate of Education at Massey University. I have been an early childhood educator for many years, sparking a real interest in how we assess children's learning, and leading to my undertaking research on this topic.

The research will involve two phases. Phase one, an online national survey, and; Phase two interviews with educators in different service types who are working with four year olds. The educators interviewed will also be asked to complete a paper copy of the survey and to share three pieces of assessment documentation as evidence of their practices.

You are invited to participate in this study because you have been identified as an accomplished and experienced educator who has been working in your service type for at least five years. I invite you to participate in a face to face interview with me, which should take no longer than an hour. The interview will focus on your beliefs, understandings and practices in relation to assessment in early childhood. You will also be asked to complete a copy of the same survey which has been used in Phase one, which will take approximately 20-30 minutes and to bring this to the interview.

You are also asked to bring three pieces of anonymised assessment documentation to the interview to discuss with me. This documentation will be discussed during the interview and given to me as part of the data collection process. The assessment documentation will be anonymised to protect children's and teachers' identities. The interview will happen at a time and place that is mutually convenient and will be audio recorded to enable an accurate record of the discussion. The audio recording will later be transcribed, before being given to you for checking and approval prior to it being used in the data analysis.

All of the data gathered for this study will be kept in a secure and confidential manner. The data and subsequent findings will only be used for the purposes of this doctoral research and any publications or presentations which result from it. Confidentiality and anonymity will be maintained at all times and no identifying

characteristics of yourself or your setting will be included in the study. A summary of findings will be provided to you at the completion of the research.

It is important to note that you are under no obligation to accept this invitation.

If you do however choose to participate, you have the right to:

- Decline to answer any particular question;
- Ask for the audio recorder to be turned off at any time during the interview;
- Withdraw from the study prior to the 31<sup>st</sup> July 2016;
- Ask any questions about the study at any time during participation;
- Provide information on the understanding that your name will not be used; and
- Be given access to a summary of the project findings when it is concluded.

Please feel free to contact me at any time if you have any questions in relation to this research.

Kind regards

Monica Cameron

(06) 356 9099 ext. 84393 or [m.j.cameron@massey.ac.nz](mailto:m.j.cameron@massey.ac.nz)

Alternatively, you may contact either of my supervisors:

- Professor Claire McLachlan  
Institute of Education, Massey University  
(09) 414 0800 ext. 43518  
[C.J.McLachlan@massey.ac.nz](mailto:C.J.McLachlan@massey.ac.nz)
- Dr Peter Rawlins  
Institute of Education, Massey University  
(06) 356 9099 ext. 84403  
[P.Rawlins@massey.ac.nz](mailto:P.Rawlins@massey.ac.nz)

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 15/002. If you have any concerns about the conduct of this research, please contact Dr Andrew Chrystall, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 43317, email [humanethicsnorth@massey.ac.nz](mailto:humanethicsnorth@massey.ac.nz).

## **Appendix J - Phase Two Information Sheet for Individuals in Parent-led Services**

Kia ora my name is Monica Cameron and I currently working on my Doctorate of Education at Massey University. I have been an early childhood educator for many years, sparking a real interest in how we assess children's learning, and leading to my undertaking research on this topic.

The research will involve two phases. Phase one, an online national survey, and; Phase two interviews with educators in different service types who are working with four year olds. The educators interviewed will also be asked to complete a paper copy of the survey and to share three pieces of assessment documentation as evidence of their practices.

You are invited to participate in this study because you have been identified as an accomplished and experienced educator who has been working in your service type for at least five years. I invite you to participate in a face to face interview with me, which should take no longer than an hour. The interview will focus on your beliefs, understandings and practices in relation to assessment in early childhood. You will also be asked to complete a copy of the same survey which has been used in Phase one, which will take approximately 20-30 minutes and to bring this to the interview.

You are also asked to bring three pieces of anonymised assessment documentation to the interview to discuss with me. This documentation will be discussed during the interview and given to me as part of the data collection process. The assessment documentation will be anonymised to protect children's and teachers' identities. The interview will happen at a time and place that is mutually convenient and will be audio recorded to enable an accurate record of the discussion. The audio recording will later be transcribed, before being given to you for checking and approval prior to it being used in the data analysis.

All of the data gathered for this study will be kept in a secure and confidential manner. The data and subsequent findings will only be used for the purposes of this doctoral research and any publications or presentations which result from it. Confidentiality and anonymity will be maintained at all times and no identifying

characteristics of yourself or your setting will be included in the study. A summary of findings will be provided to you at the completion of the research.

It is important to note that you are under no obligation to accept this invitation.

If you do however choose to participate, you have the right to:

- Decline to answer any particular question;
- Ask for the audio recorder to be turned off at any time during the interview;
- Withdraw from the study prior to the 31<sup>st</sup> July 2016;
- Ask any questions about the study at any time during participation;
- Provide information on the understanding that your name will not be used; and
- Be given access to a summary of the project findings when it is concluded.

Please feel free to contact me at any time if you have any questions in relation to this research.

Kind regards

Monica Cameron

(06) 356 9099 ext. 84393 or [m.j.cameron@massey.ac.nz](mailto:m.j.cameron@massey.ac.nz)

Alternatively, you may contact either of my supervisors:

- Professor Claire McLachlan  
Institute of Education, Massey University  
(09) 414 0800 ext. 43518  
[C.J.McLachlan@massey.ac.nz](mailto:C.J.McLachlan@massey.ac.nz)
- Dr Peter Rawlins  
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**Appendix K -Phase Two Participant Consent Form - Individual**

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

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

I wish/do not wish to have my recordings returned to me.

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

**Signature:**

**Date:**

.....

**Full Name -  
printed**

.....

**Appendix L - Phase Two Participant Consent Form - Organisation**

On \_\_\_\_\_ behalf \_\_\_\_\_ of

.....

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

On behalf of .....

(Organisation name) I agree for educators in this organisation to participate in this study under the conditions set out in the Information Sheet.

**Signature:** ..... **Date:** .....

**Full Name -**  
**printed** .....

**Appendix M -Phase Two Transcriber's Confidentiality Agreement**

I ..... (Full Name -  
printed) agree to transcribe the recordings provided to me.

I agree to keep confidential all the information provided to me.

I will not make any copies of the transcripts or keep any record of them, other than those required for the project.

**Signature:**

**Date:**

.....

## **Appendix N -Phase Two Broad Interview Questions Shared with Interviewees**

### Question 1

Tell me about the assessment documentation you have chosen to share.

### Question 2

How do these examples compare with your usual assessment practices?

### Question 3

How has this assessment information helped inform your understanding of this child?

### Question 4

What do you believe is the purpose of assessing four-year-old children's learning?

### Question 5

What challenges do you experience in relation to assessing four-year-old children's learning?

### Question 6

How have your assessment practices changed over time?

### Question 7

What role does assessment documentation play in supporting continuity before, during and after children transition to school?

## Appendix O - Phase Two Probing Interview Question for Interviewer

### Question 1

Tell me about the assessment documentation you have chosen to share.

- Possible probing questions
  - Why did you choose these examples?
  - Why did you assess this child's learning in this/these ways?
  - How do you decide what to assess? What to document?
  - How did you decide what methods to use to assess this child's learning?
  - Probe jargon – especially around reflection

### Question 2

How do these examples compare with your usual assessment practices?

- Possible probing questions
  - What is different about these examples in comparison with your usual practices?
  - How do you usually assess children's learning?
  - How do you usually document the assessment information you gather?

### Question 3

How has this assessment information helped inform your understanding of this child?

- Possible probing questions
  - What information did you gain about the child from this assessment documentation?
  - How have you used the information gained about this child?
  - How hard did you find it to do these assessments for this child? Why?
  - Is there other information about the child you would like to have that this form of assessment has not provided you with?
  - Probe jargon

#### Question 4

What do you believe is the purpose of assessing four year old children's learning?

- Possible probing questions
  - What is the assessment information you gather used for?
  - Why do you assess children's learning?
  - Probe jargon

#### Question 5

What challenges do you experience in relation to assessing four-year-old children's learning?

- Possible probing questions
  - What factors impact on how you assess children's learning?
  - How does non-contact time impact on your assessment of children?
  - What aspects of your assessment practices are you unhappy with?
  - What would you like to do differently in relation to assessment?
  - What support do you need in relation to assessment?
  - Probe jargon

#### Question 6

How have your assessment practices changed over time?

- Why have you made changes to your practices?
- What are the primary influences on your assessment practices?
- Probe jargon

### Question 7

What role does assessment documentation play in supporting continuity before, during and after children transition to school?

- Possible probing questions
  - Where does your knowledge about assessment practices at school come from?
  - How do you share assessment information about children with the school they move on to?
  - What role, if any, do you see for learning stories as children move to school?
  - What kinds of assessment information do you think new entrant teachers want to have about children?
  - Probe jargon

**Appendix P -Authority for the Release of Transcripts**

I confirm that I have had the opportunity to read and amend the transcript of the interviews conducted with me.

I agree that the edited transcript and extracts from this may be used in reports and publications arising from the research.

**Signature:**

**Date:**

.....

**Full Name -  
printed**

.....