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## 1. Introduction

New Zealand's Early Childhood Education (ECE) curriculum *Te Whāriki* (Ministry of Education, 1996) is an extensive and holistic curriculum for all children from birth to school starting age. It is founded on aspirations 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" (p. 9).

The early childhood years are alive with opportunity and vulnerability for healthy physical, emotional, social, and cognitive development (Maggi, Irwin, Siddiqi, Poureslami, Hertzman & Hertzman, 2005). Young children develop and learn quickly and their achievements are the result of a combination of their ability to learn and past learning opportunities (Carr, 2001). Young children, however, learn in different ways and at varying rates. They comprehend through doing as well as through listening, and often express themselves through physical behaviour and play, rather than verbally. Early childhood learning and development is therefore a holistic, constant and dynamic process.

Due to the nature of learning and development in early childhood, assessment practices are essential to ensure that learning and teaching occurs and evolves according to the needs of every learner. Assessment approaches should integrate holistic learning and development and identify areas that need extended learning opportunities, intervention or additional support (Blythe, 2004). The outcome of an assessment can help a teacher or a parent make important educational decisions for a child and should be monitored to help inform planning and decision-making (Cullen, 2008). In saying this, are the assessment approaches implemented in ECE services in New Zealand effective, and are teachers receiving adequate education in order to ensure that successful teaching, learning and assessment practices are carried out?

The researcher undertook the research project due to concerns that developed while teaching in various ECE environments in New Zealand. Learning stories were the only form of assessment being used and one learning story per child, per month was compiled. Several teachers, who were behind on learning stories, took irrelevant and random photographs of children and created

fabricated learning stories in order to catch up. When the child went to school, there was no evidence (other than the learning stories) of skills learnt, developmental milestones reached, areas of concern, learning dispositions, personality traits, or intervention implemented. Extended and continuous learning was not evident in the portfolios. Numerous children were going to school with under-developed speech and language, motor, literacy and numeracy skills. The teachers did not always put activities out with the aim of developing and extending the various areas of learning and development, during which assessment could take place. Children were allowed to avoid activities and this avoidance was not redirected or captured through assessment. There was little involvement of parents in the assessment process, unless serious behaviour problems were present. The teachers did not feel it was their responsibility to develop and implement Individualised Education Programmes (IEPs) for children with special learning needs; these needs were often ignored or put aside for formal schooling to correct. A number of teachers had little knowledge of the age-appropriate areas of learning and development, how to develop and extend thinking and learning, and the related assessment practices.

This paper focuses on assessment practices used in Early Childhood Education (ECE) in New Zealand. The study gathered teachers' views on the use of a range of approaches to assessment of children in early childhood education. The survey data indicated the range of assessment methods used by teachers in ECE in New Zealand. Other areas indicated how well teachers understood the purpose of assessment, how comfortable they felt using a variety of methods and how they used the information collated from assessments for child, teacher and programme development. The research study also aimed at determining the goals of pre-service ECE teacher education providers in relation to teacher education in assessment in ECE in New Zealand.

The researcher deliberately omitted early intervention for children with special educational needs to maintain the overall focus on the regular assessment practices of ECE teachers working in education and care centres and kindergartens.

The understanding and knowledge gained from this research study will be distributed and potentially support effective education benefiting teachers, children, families and communities. The research study will contribute further to a new body of knowledge within early childhood

education. It may influence curriculum development, pre-service ECE teacher education programme development, teaching practices and assessment in New Zealand.

## 2. Literature Review

### Early Childhood Education in New Zealand

#### Background

Early Childhood Education in New Zealand accommodates a large number of the country's population. According to *Education Counts* (ECE Analysis Team, 2010), as at 1 July 2010, there were 4,321 licensed ECE services in New Zealand, 188,924 enrolments and 19,901 teachers in licensed ECE services. This total number of teachers included qualified (13,294) and non-qualified (6,607) teachers. The statistics also revealed that the average attendance is 20.1 weekly hours in licensed ECE services, across all services and age-groups.

The number of enrolments according to age-groups was as follows:

- 8,704 (under 1 year);
- 24,771 (age 1);
- 36,873 (age 2);
- 57,729 (age 3);
- 59,141 (age 4); and
- 1,706 (age 5).

The types of ECE services were:

- education and care services (109,204 enrolments);
- home-based services (17,084 enrolments);
- playcentres (15,049 enrolments);
- te Kōhanga Reo (9,370 enrolments); and
- correspondence schools (617 enrolments).

Kōhanga Reo is an early childhood education and care centre that completely engages children in the Māori language and culture. The main objectives of these services are to retain the Māori language and encourage learning within a context that is relevant to the children and which incorporates the Māori styles of learning and teaching (King, 2001).

The manager of an ECE service in New Zealand is responsible for supervising the education and care, wellbeing, and health and safety of the children enrolled at the service, as well as offering leadership and assistance to the teachers and other staff employed by the service (Ministry of Education, 2011b). Managers are not required to have an ECE teacher qualification and may separate themselves from teaching functions.

The government provides various types of funding for ECE services and teachers in New Zealand, but has no role in the ownership or management of ECE services. Financial support is offered to parents in the form of 20 hours of free early childhood education a week (Ministry of Education, 2011a). This reduces financial barriers and more children can receive early childhood education. The Ministry offers financial assistance for students undertaking an ECE teaching qualification that leads to registration as a teacher (Ministry of Education, 2011a). The government also offers equity funding to certain licensed ECE services (Ministry of Education, 2005). The primary objectives of the equity funding are to: reduce educational differences between communities; reduce barriers to participation; and improve the quality of ECE services in New Zealand.

The above research reveals that a large number of children attend ECE services in New Zealand, and for a significant portion of each week. From this research we can conclude that ECE services influence the learning and development of young children in New Zealand. Effective assessment practices, which ensure that the necessary, age-related learning and development take place, are therefore a vital component of all ECE services in New Zealand. In addition, we can conclude that the role of managers is primarily administrative and the government only offers support to ECE services in the form of funding.

## **The Curriculum**

The early childhood curriculum used in New Zealand is called *Te Whāriki*. The aim of *Te Whāriki* is for children to “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” (Ministry of Education, 1996, p. 9). *Te Whāriki* acknowledges the diverse social and cultural worlds that exist in New Zealand and the influence they have on children’s learning. *Te Whāriki* also acknowledges the holistic way in which they

learn and therefore no planning guidelines for ECE services are provided, allowing them to implement their own system of planning. The curriculum consists of five strands that each have their own related learning outcomes. *Te Whāriki* has gained a significant amount of support, but areas of concern have also been uncovered.

From the aim of *Te Whāriki*, as stated by the Ministry of Education (1996), we can conclude that the curriculum focuses on the following areas of learning and development:

- physical (development of the body);
- motor (large and small muscle development);
- sensory (development of touch, sight, hearing, taste and smell);
- social (ability to initiate and maintain secure relationships);
- emotional (development of a range of emotions and learning to deal with them appropriately);
- speech and language (understanding and ability to use language and speech to communicate); and
- cognitive (development of intellect).

Assessment practices implemented in ECE services need to cover all the areas to ensure that the required age-appropriate, holistic learning and development take place.

*Te Whāriki* emphasises a socio-cultural approach to learning, teaching and assessment in early childhood education and recognises the influence that the learning community has on children's involvement in learning (Fleer, 2003; Fleer & Robbins, 2004; Ministry of Education, 2006). Every learning environment is part of a wider community, which has cultural practices and social norms. Lave and Wenger (1991) talk of the importance of learning environments that include the social and cultural backgrounds of a specific community and the manner in which it operates. Accordingly, assessment practices for learning and teaching should involve and consider the parents, the family, the community, the language and the culture of each individual child.

Even though the holistic and generalised nature of *Te Whāriki* has received a large amount of support, there are concerns that teachers are not provided with the significant guidance needed to offer effective opportunities in all areas of learning (Anning, Cullen & Fleer, 2009; Blaiklock, 2010a; Hedges & Cullen, 2005). Assessment of learning and teaching influences and produces

learning opportunities, therefore confidence and guidance in assessment is required. *Te Whāriki* does not provide planning guidelines for ECE services. The Ministry of Education (1996) states that “Early Childhood Education services should develop their own distinctive pattern for planning, assessment and evaluation” (p. 28). ECE services are advised “to offer sufficient learning experiences for the children to ensure that the goals are realized” (Ministry of Education, 1996, p. 28). We can therefore conclude that the curriculum, like most curricula, does not offer specific guidelines with regards to what should be assessed, which assessment methods to use and the regularity of assessment.

*Te Whāriki* consists of five strands (Well-being, Belonging, Contribution, Communication and Exploration) and learning outcomes are provided for each of the five strands (Ministry of Education 1996, p. 44). The learning outcomes are exploratory rather than authoritative and it is therefore up to the ECE service to decide on the content and methods integrated in the ECE service programme: “Each early childhood setting will develop its own emphases and priorities” (Ministry of Education 1996, p. 44).

According to Blaiklock (2010a) and Mitchell (2008), research has revealed that there is prevalent support for *Te Whāriki* as a curriculum used in ECE services in New Zealand. “*Te Whāriki* has had an enormous impact on curriculum development in many countries . . . *Te Whāriki* has gained international prominence as an early childhood curriculum of great substance and importance” (Fleer, 2003, p. 243-4). “Engaging with *Te Whāriki* allows teachers to have their own learning journey just as children have theirs. It is for this reason that so many early childhood professionals feel privileged to have such a sound document to work with” (Tyler, 2002, p. 3). Nuttall (2005), however, states that despite the widespread support, there is no empirical evidence that *Te Whāriki* effectively facilitates children in achieving the required learning outcomes. Cannella (1999) and Nuttall (2005) feel that *Te Whāriki* provides rigid, broad strands and outcomes, with insufficient guidelines, which results in a passive, child-oriented learning environment in which children are left to find their own way. The Ministry of Education (2004, 2007, 2009), however, states that *Te Whāriki* encourages reciprocal and responsive relationships and Blaiklock (2010a) states that the generalised nature of the guidelines in *Te Whāriki* on programme planning allows for flexibility.

The literature research indicates that *Te Whāriki* encourages learning and development in all the necessary areas of learning and development and that the socio-cultural environment of the child, including the parents and the community, is considered to be extremely important. Even though *Te Whāriki* and its holistic nature have gained a great deal of support, there are concerns with regards to the lack of guidelines that *Te Whāriki* provides for teaching, learning and assessment, as well as how these practices are monitored.

### **Assessment Practices**

The Ministry of Education developed *Kei Tua o te Pae* (Ministry of Education, 2004, 2007, 2009), a tool used for assessment in ECE in New Zealand. The main assessment method used is the learning story. Both *Kei Tua o te Pae* and the learning story have received a great deal of positive feedback, however researchers have identified shortcomings.

*Kei Tua o te Pae*, Early Childhood Exemplars, was designed to assist teachers with developing their practice of assessment for learning. The resource is based on the principles of the early childhood curriculum and appreciates "assessment as a powerful force for learning" (Ministry of Education, 2004, p. 2). "The national Early Childhood Exemplars provide illustrative models of how assessment narratives can be recorded for individuals" (Margrain & Clements, 2007, p. 4). *Kei Tua o te Pae* does not impose any requirement to focus on particular learning outcomes when assessing children's learning (Ministry of Education 2004, 2007, 2009). The national exemplar development project by Poskitt, Brown, Goulton and Taylor (2004) points out that extra input is needed to assist teachers with the use of exemplars with children and parents.

The Ministry of Education released a series of books in *Kei Tua o te Pae* and books 17 to 20, called Symbol Systems and Technologies for Making Meaning, focus on assessing oral, visual and written literacy and mathematics in ECE (Ministry of Education, 2009). The books were developed to support teachers, parents and whānau to notice, recognise and respond to children's learning in literacy and numeracy and to enhance their skills and confidence.

The learning story, a narrative form of an exemplar, was developed in relation to *Te Whāriki*. The learning story focuses on the processes of learning and dispositions and not only the specific knowledge and skills developed (Carr, 1998). Learning stories have received widespread support

(Bayes, 2006; Drummond, 2003), but there has also been much speculation with regards to whether it is an effective and practical means of assessing children's learning and development. There are also no guidelines as to where, when and how often learning stories should be documented. Carr (1998) suggests that reliability is not necessary and that the strengths of learning stories lie in their diversity and individuality.

A written portfolio is developed to document each child's learning journey at the kindergarten or Early Childhood Education centre in New Zealand. The portfolio contains learning stories and other forms of assessment, which allows teachers to develop an understanding of each child's interests, ability, and knowledge which are developed through a planned programme (Te One, 2002). Portfolios are collaborative, and contain the perspectives of teachers, the child, and their family.

Davis (2006) explored assessment in an early childhood setting by specifically looking at how teachers made decisions about the ECE service programme from narrative assessment. The learning story format is considered to assist in gaining a deeper understanding of "why things are the way they are and how people perceive these within context" (p. 52). The portfolios analysed by Davis were descriptive rather than narrative and did not seem to show much depth in content. Davis (2006) demonstrated that the teachers perceived that they were using narrative assessment for children's learning, but were actually using traditional methods. The teachers had an understanding of narrative assessment, but struggled to translate it into practice. Davis (2006) also noticed that instead of including *Te Whāriki* within the narrative observation, a quote from *Te Whāriki* was placed beside the narrative, creating a vague connection between *Te Whāriki* and the learning that took place.

According to Blaiklock (2008a) learning stories are effective in assessing a specific learning experience, but fail to illustrate learning over time and this limits further planning to develop or extend children's learning and development. Blaiklock (2008) states that learning stories have not shown adequate and reliable changes in children's individual learning and development in specific areas over a period of time. Blaiklock (2010b) reports that learning stories are time-consuming to produce and are often compiled once a month for each child. The concern is

whether all areas of learning can be effectively assessed and enhanced if learning stories are the only means of assessment and are only conducted once a month.

Steele (2007) examined the portfolios in an ECE service and recognised that the “child's voice”, an essential aspect of the portfolios (Carr, 2001), was missing from the portfolios. "Involving children in the portfolio process makes visible to children the value of their contributions to their learning" (p. 93). Carr (2001) emphasises that children's voices within portfolios are an important component of assessment for learning and that children should return to and reflect on past experiences to extend their learning.

The literature reveals that *Kei Tua o te Pae* and learning stories encompass many beneficial features, but there is also much concern and criticism with regards to just how effective and beneficial they are concerning credibility, the extension of previous learning, and the assessment of holistic teaching practices and learning opportunities. There is also concern as to whether teachers have enough knowledge and skill to effectively use the learning story as a method of assessment.

## Early Childhood Assessment

### Principles of Assessment

According to research, principles need to be considered and implemented in order to ensure assessment that is effective, credible and realistic. Each assessment practice serves a purpose and multiple, ongoing assessment provides a more realistic and credible evaluation. Assessment should include all children and relate to the learning outcomes of *Te Whāriki*. Teachers that are skilled and educated in assessment are essential, as well as acknowledgement of the importance of parent and family involvement, culture and language, and the child's natural environment.

Assessment should benefit all children and in order to warrant conducting assessments, there must be a clear benefit - either in direct services to the child or in improved quality of educational programs (Drummond, 2003). Assessment used for one purpose is not necessarily appropriate for other purposes. Assessment that is employed for a specific purpose will provide results that are relevant to that purpose and consistency in results can be easily identified (Witt,

Elliott, Kramer & Gresham, 1994). It is important for teachers in ECE services in New Zealand to identify and understand the purposes behind each assessment practice that is carried out.

The ECE curriculum in New Zealand, *Te Whāriki*, has a strong focus on holistic learning, which we have already established covers learning and development in the following areas: physical, motor, sensory, socio-emotional, speech and language, and cognitive. From a logical and realistic point of view, it can be concluded that one assessment method, executed from time to time, cannot effectively encompass the assessment of all these areas of learning. The use of multiple assessment methods that can be implemented to effectively assess all areas of learning and development will provide a comprehensive collection of information (Drummond, 2003) and establish continuity in each area of learning (Cowie & Carr, 2003). McAfee & Leong (1997) reported that the use of ongoing, multiple assessment methods provide information to ensure that children are progressing along the continuum of learning and development. Ongoing assessments of children's progress also assist teachers in assessing whether the programme or teaching practices need to be adapted for the whole group or for individual children. It is therefore essential that teachers in ECE use a variety of assessment methods that cover all areas of learning and these methods should be carried out regularly and on a long-term basis.

According to the Ministry of Education (2004, 2007, 2009), *Te Whāriki*, is an inclusive curriculum that accommodates all children. *Te Whāriki* is based on the theory that the special needs of children are met when children learn together in ECE environments. *Te Whāriki* relies on each ECE service to develop and implement their own methods of assessment for all children, including those with special educational needs. Assessment should not be limited to just those children with special learning needs or barriers, but rather is relevant for all children in order to extend their level of learning, identify strengths and identify areas of concern, in both learning and development (Landsberg, 2005).

Assessment is an integral part of each child's educational program and it drives the curriculum, achievement of outcomes, teaching practices, and learning. Carr (1998), stresses that assessment should not be conducted separately from the child's programme and/or curriculum. Carr (1998) further describes assessment as sitting inside the curriculum. Assessments should therefore work alongside the early learning outcomes; programme objectives; curriculum; and relevant theories

of learning, development and instruction (Meisels, Bickel, Nicholson, Xue, & Atkins-Burnett, 2001). When assessment practices relate to the goals of a curriculum, decisions can be made as to whether or not the programme and teaching practices provide opportunities for learning and development, as well as the extension of previous learning (Bredekamp & Rosegrant, 1995).

Assessment is a process which allows for the understanding of a child's learning and development and how to create learning environments that will help a child grow to his or her full developmental potential (Wortham, 2008). Assessment methods should support children's developmental changes along a continuum in order to gather reliable data (Zaslow, Calkins, & Halle, 2000; Neisworth & Bagnato, 2004). Bredekamp (1990) reveals the importance of the use of assessment methods, resources and materials that are age appropriate in both content and method of data collection. The age of a child affects both what should be assessed and what method of assessment should be used. Assessment should relate to the age-related expected learning and development and then change to support children as their learning expectations change (Katz, 1998). Assessing children in early childhood is important because it is the stage in development and learning when children's rates of physical, motor, and linguistic development surpass rates at all other stages; however, it is challenging to depict children's learning and development, particularly at any one point in time (Zaslow, Calkins, & Halle, 2000). This literature endorses that it is important for teachers in ECE to acknowledge the value of assessment for, of and as learning.

Teachers assess, interpret, use and report assessment results. This process of assessment, for the purpose of teaching and learning, has an immeasurable impact on children's current learning, as well as their future learning. From this we can conclude just how important the quality of pre-service ECE teacher education is, especially with regards to assessment. It is vital that teachers receive adequate education and support to ensure competent, reliable assessment practices and the effective use of the information gathered (ECE Taskforce, 2011). The need for teachers to be educated to meet a clearly specified level of skills and knowledge in the entire assessment process is essential and therefore assessors should be regularly supervised and re-evaluated (Hyson, 2003).

Parents and family are valued sources of assessment information and their inclusion in the entire assessment process is vital (McKinney, 1980). As already mentioned, assessments should include multiple sources of evidence and a valuable source of information is reports from parents and family. Assessment results are shared with parents and an ongoing involvement in their child's education should be sustained (Powell, 1989). It is therefore important that teachers acknowledge parents and family as part of the teaching, learning and assessment process and provide them with opportunities to comfortably exchange information.

A fundamental principle of assessment in ECE is sensitivity towards cultural and language differences as well as the use of language that is appropriate (Navarrete & Gustke, 1996). Assessment results can easily be confounded by language proficiency, especially for children who come from home backgrounds with limited exposure to English. Children's home languages should be taken into account when determining appropriate assessment methods and in interpreting the meaning of assessment results (Hernandez, 1994). In order to produce a non-biased picture of the child's abilities, ECE teachers need to determine which language will be used during the assessment process and ensure that the assessment procedures used are appropriate for each child (Shaw, Goode, Ringwalt, & Ayankoya, 2005). In order for ECE teachers to consider possible language and cultural influences, ECE teachers need to know each child. Various assessment methods can be used to assist teachers in obtaining information about the child. These considerations help assessors determine whether particular patterns of development and behaviour are caused by a disability or simply the result of cultural and linguistic differences.

Younger children need naturalistic opportunities to demonstrate their skills (Scott-Little & Niemeyer, 2001) and therefore methods of assessment should recognize that children need familiar contexts to be able to demonstrate their learning and development. Assessment information should be gathered from realistic settings and situations that reflect children's actual performance (Ministry of Education, 2004, 2007, 2009). Assessment in day-to-day teaching and learning situations, as well as information from parents who observe the child at home, provide ECE teachers with credible information.

Research acknowledges many important principles that ECE teachers need to be aware of and have the skills in, in order to execute effective, credible and useful assessment practices. If ECE teachers consider and apply these principles, assessment will be of most value to and benefit the learning and development of all children as well as the teaching practices of all teachers in ECE services in New Zealand.

### **Purposes of Assessment**

In order for assessment to be useful and effectively implemented, it is essential that teachers in ECE services acknowledge and understand the purposes of assessment for learning and teaching. With regards to learning, assessment serves three purposes: assessment of learning; assessment for learning; and assessment as learning (Hume & Coll, 2009). Assessment information is also used to plan, develop and implement teaching practices and programmes. Assessment is fundamental for the identification of special educational needs and assessment information can be shared with parents. In New Zealand, applications can be made for funding and resources; assessment information can be used to support ECE services with these applications.

*Assessment of learning* identifies and monitors progress with regards to what children are interested in; what children's strengths and areas of difficulty are; what children's knowledge and skills are in particular areas; and what to implement to promote children's learning and development (Bell & Cowie, 2001). It involves the collection and evidence of learning information, from a specific learning moment or learning taken place over a period of time. Learning and retention are two different concepts; a child can learn something and then lose it in minutes. In order for retention to take place, rehearsal or revisiting the skills must occur on a regular basis (Sousa, 2001) and assessments help identify new skills that need to be extended. It can be concluded that teachers in ECE implement assessment of learning for the purpose of getting to know a learner and identifying learner strengths, interests and needs.

*Assessment for learning* includes assessment methods carried out by teachers to gather information to adjust and develop teaching, learning and understanding. Broadfoot (2007) describes assessment for learning as practices that "are designed to support and guide the learning process" (p. 178). Teachers who use assessments for learning are better prepared to meet the diverse needs of children through differentiation and adaptation of teaching practices

and programmes (Carr et al., 2005). Assessment for learning has the purpose of providing teachers with the information needed to identify teaching opportunities. It also assists teachers in the process of reflection and adaptation of day-to-day teaching and learning.

*Assessment as learning* embraces the idea that children are active and valued participants in their own learning and development (Earl, 2003). With support from teachers and parents, children are able to recognise their unique learning strengths and needs and take their own steps in extending or addressing these areas. *Kei Tua o te Pae* encourages children to comment on and evaluate their own learning (Ministry of Education, 2004, 2007, 2009) and therefore children should be encouraged to review and discuss familiar recorded assessments with peers, teachers and family. Assessment as learning also supports the concept that the interactive role of the teacher allows teachers to learn through assessment experiences. Assessment as learning subsequently supports ECE teachers in getting to know learners; identifying learner strengths, interests and needs; evaluating day-to-day learning and teaching; identifying teaching opportunities; and preparing Individual Education Plans.

A fundamental purpose of assessment, regardless of age, is to help teachers make appropriate instructional decisions with regards to the most beneficial and effective teaching practices, in order for each child to experience holistic learning (Bredekamp & Copple, 1997). Teaching and learning are reciprocal processes that directly influence one another. Assessment can determine the effectiveness of teaching practices and therefore the level of learning and development that is taking place. Assessments help us to understand each child's world and early childhood researchers have found that experiences relevant to the child's world create the best possible teaching moments (Bredekamp & Copple, 1997). Assessment information can be used to assist with the implementation of the most effective day-to-day teaching practices, including approaches to intervention.

Assessment of children and their learning provides the information needed to plan programmes and curriculum that will promote each child's progress. Programme evaluations help to document the accountability and the quality of the programme and to determine whether programmes are effective in achieving planned outcomes. Managers and teachers may also work together to review assessments to ensure that the ECE service's programmes are succeeding in

helping young children meet developmental and learning expectations. “When [assessment] information is used by the classroom teacher to design the child’s learning environment, [the child’s] success in school is enhanced, and a more stimulating, exciting learning environment is facilitated” (Niemeyer & Scott-Little, 2001, p. 2).

Assessments serve the purpose of providing parents with information regarding their children’s learning. Parents can provide teachers with good sources of information to inform assessment as well. Parents are encouraged to provide and are entitled to information about how their child is progressing (Ministry of Education, 2004, 2007, 2009). Although teachers collect much more information than can be shared with parents, samples of children’s work and teacher appraisals of each child’s progress should be shared with parents on a regular basis in order to establish an ongoing, shared relationship with them (Grace & Shores, 1998). These discussions help parents learn about the curriculum, appropriate learning and development, and their child’s performance (Powell, 1989). Exchange of information can also encourage parents to share observations, on similar or different behaviours and skills, displayed in the home environment.

Effective assessment practices play a vital role in the early identification of special needs. The information can be used to gain access to professionals who can assess and identify the specific needs of the child, inform which additional support is required, and offer support and information to parents (ECE Taskforce, 2011). The information gathered from assessment is also used for preparation, planning and implementation of Individual Education Plans (IEPs) (Ministry of Education, 2007, 2011c). IEPs are individualized education programs designed to meet the unique needs of children who have been identified as having a disability and needing special education and related services (Ministry of Education, 2007, 2011c). Each child's IEP is different and is prepared for the individual child. It is ECE teachers’ responsibility to be involved in the development of effective IEPs for children. Assessment therefore identifies learning needs and the information can be used to assist with the preparation of Individual Education Plans. Are ECE teachers assessing to gather information to effectively develop IEP’s for children who require them?

Assessment information can also be used to assist with applications for funding and resources. The Ministry of Education in New Zealand offers equity funding to Early Childhood Education services in low socio-economic or isolated areas (Ministry of Education, 2005). The funding is also offered to ECE services with a considerable number of children with special education needs, children from non-English speaking backgrounds, and children that use sign language. Assessing the ECE service resources, identifying resources needed for effective and comprehensive teaching and learning, and utilising the information gained to obtain the necessary resources is an important process in the management of an ECE service. Assessment therefore serves the purpose of assisting ECE services in applying for the relevant funding needed and obtaining resources required.

Research reveals that assessment in ECE serves a variety of purposes and that parents, teachers and children are all valued participants in the assessment process. Each purpose of assessment is beneficial and aims to guarantee and enhance the teaching and learning that take place within an ECE service.

### **Areas of Assessment**

The aim of *Te Whāriki* is for children to “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” (Ministry of Education, 1996, p. 9). From this aim we can conclude that the curriculum focuses on the following areas of learning and development:

- physical (development of the body);
- motor (large and small muscle development);
- sensory (development of touch, sight, hearing, taste and smell);
- social (ability to initiate and maintain secure relationships);
- emotional (development of a range of emotions and learning to deal with them appropriately);
- speech and language (understanding and ability to use language and speech to communicate); and
- cognitive (development of intellect).

Research suggests that to attain the accuracy of the mature brain, the brain needs stimulation in the form of movement and sensory experiences during the early childhood years (Greenough & Black, 1992). Children's movement and activities influence their physical development and opportunities to engage in different types of physical movement are important. Assessment in early childhood involves assessing locomotor movements that develop gross motor skills, non-locomotor movements that develop balance and coordination skills, and manipulative movements that develop fine motor skills and hand-eye coordination (Hammet, 1992).

Research shows that touch plays a critical role in early physical, cognitive, and emotional development (Caulfield, 2000). Tactile stimulation allows children to explore and discover using their sense of touch, therefore the exposure to and the assessment of tactile stimulation plays a vital role in children's learning and development.

The assessment of visual and auditory skills and learning styles assists in identifying possible barriers in these areas, but also helps classify those children who learn predominantly through seeing and those who learn through hearing (Carbo, Dunn & Dunn, 1986). Knowing how children learn can help teachers and parents assist children in developing strategies to compensate for the learning approach not used and benefit from the learning approach used.

There is currently an increased focus on the precursors of socio-emotional skills through increased awareness of emotional development. Many of the necessary areas of socio-emotional development are initially developed and moulded during the early childhood years (Sternberg, 1996), forming the crucial foundations for further learning and development (van der Merwe, 1988). According to Katz and McClellan (1997) children in ECE need to develop the capacity to: approach peers positively; clearly and appropriately express needs; not easily be intimidated by bullies; express frustration and anger positively; easily join peers in work or play; participate in discussions and activities; take turns; show an interest in peers; compromise with peers; accept people of diverse ethnic groups; and use appropriate nonverbal communication.

Socio-emotional development can be learnt and improved at any age by attaining the essential skills and applying them to inner functioning and social circumstances and this cannot be done with most of the other areas of development (de Klerk & le Roux, 2003). Socio-emotional development is the most important area to develop and strengthen during the early childhood

years and therefore assessment of the necessary areas of socio-emotional development in ECE is important (van der Merwe, 1988).

The speech and language skills acquired during the early childhood years are being recognized as an important factor for success in the latter formal schooling years (Pieterse, 2007). Assessment in ECE requires teachers to assess baseline speech and language development including: pronunciation of sounds and words; vocabulary; construction of sentences; participation in class or group discussions; discussions with teachers and peers; and the ability to express thoughts or feelings (Gambrell, Morrow, Neuman, & Pressley, 1999). Teachers are responsible for providing children with opportunities and activities that enhance speech and language development and encourage children to be active, confident communicators (Bochenek, 2002). Teachers are also accountable for identifying delays in speech and language according to the developmental continuum, in order for the relevant intervention or specialist assistance to be put into place (Grimm & Skowronek, 1993; Guralnick, 1997). Speech and language therapists are responsible for in-depth assessment and screening of particular areas in speech and language development. The assessment may include clinical observations as well as standardised and non-standardised tests that break down the areas of speech and language in order to capture a thorough and detailed analysis of the areas of concern.

The development of skills in cognitive thinking in early childhood education is an essential area of development. It is important for young children to develop the skills to focus attention for extended periods, recognize previously encountered information, recall old information, and reconstruct it in the present (Istomina, 1982). Vygotsky (1978) and Flear (2003) believe this is culturally constructed and related, which needs to be considered in a country like New Zealand that is culturally diverse.

An important part of cognitive development is the development of long and short-term memory with regards to ability to store information related to a sequence of events during familiar situations (Istomina, 1982). This helps children understand, interpret, and predict what will happen in future situations. Children in early childhood should also be exposed to situations that allow them to recognize that there are often multiple ways to solve a problem and that they can brainstorm different solutions (Fisher, 1995).

Another important part of cognitive development is the ability to focus and use cognitive abilities for specific purposes (Witt, Elliott, Kramer & Gresham, 1994). These skills help children to learn new information, retain it and re-produce it when necessary. Metacognition is another important cognitive skill that develops during early childhood (Metcalf & Shimamura, 1996). Young children realize that they can use their brains to think, which results in the expansion of children's knowledge base and therefore children want and need to be exposed to new knowledge and challenges (Pramling, 1988; Sousa, 2001). Teachers need to assess their planning, programmes and teaching practices to ensure that they are providing children with opportunities to extend their general knowledge and continuously progress in all areas of cognitive development. Assessment of the acquisition of the necessary age-appropriate skills in cognitive development is also necessary.

The assessment of children's approaches to learning measures children's tendencies, dispositions, and the ways in which children use their knowledge and skills to interact with their learning environment. Approaches to learning reflect children's attitudes toward the learning process and include: openness to new tasks and challenges; self-confidence; initiative; persistence; reflection; imagination; and problem solving (Hyson, 2008). Assessing children's approaches to learning will help teachers to identify children's strengths and interests. The assessment will also exhibit activities that children avoid and the need for a positive encounter or assistance and encouragement.

The research uncovers the importance of each area of learning and development in ECE. Assessment practices implemented in ECE services therefore need to cover all these areas to ensure that age-appropriate learning and development in all the relevant areas take place.

### **Tools and Methods for Assessment in ECE**

According to literature, assessment should serve a purpose (Drummond, 2003) and multiple assessments should be carried out (McAfee & Leong, 1997), therefore there are various assessment methods, each developed to address a specific purpose (Hirsh-Pasek, Kochanoff, Newcombe & de Villiers, 2005). The following tools and methods for assessment in ECE will be reviewed: Early Childhood Exemplars; learning stories; annotated/unannotated copies of children's work; observation; checklists; and anecdotal records. Literature reveals that these

methods are most beneficial and valued in ECE (Mitchell, 2008; Williamson, et al., 2006; Witt, et al., 1994). Learning stories and observation are supported and encouraged by *Te Whāriki* (Ministry of Education, 2004, 2007, 2009).

*Kei Tua o Te Pae*, Early Childhood Exemplars, is a tool that aims at helping teachers to improve the quality of teaching and learning. The exemplars consist of a series of books containing examples of assessments to help teachers understand and strengthen children's learning and demonstrate how children, parents and whānau can contribute to assessment and ongoing learning, using the learning story approach (Ministry of Education, 2004, 2007, 2009).

A *learning story* is a documented account of a child's learning event. The recording of learning stories through narrative and annotated photos demonstrate and helps create an understanding of children's learning and development (Carr, 2001). Learning stories are based on the learning outcomes that link to *Te Whāriki* (Ministry of Education, 1996) and are structured around five key behaviours: taking an interest, being involved, persisting with difficulty, expressing a point of view or a feeling, and taking responsibility (Carr, Podmore & May, 2000). Cowie and Carr (2003) define learning stories as "structured narratives that track children's strengths and interests: they emphasise the aim of early childhood as the development of children's identities as competent learners in a range of different arenas" (p. 97). The learning story is a common method of documenting learning in ECE services in New Zealand and is supported through the Early Childhood Exemplars, *Kei Tua o te Pae* (Ministry of Education, 2004, 2007). Mitchell (2008) reported that 94% of ECE teachers use learning stories as their main assessment method.

*Annotated/unannotated copies of children's work* involves the process of collecting work that is dated (*unannotated*) and accompanied by a brief statement to explain the context in which the work was done (*annotated*). Parents may also collect samples of children's work to be reviewed for assessment purposes. The effective use of information collected through this approach depends on the teacher's knowledge of child development and skills in observation (Slentz, Early, & McKenna, 2008). When collecting work samples teachers should use this knowledge to guide their decisions in selecting specific work samples and the recording of related observations (Gronlund, 1998). The method of assessing using work samples is most valuable when they can be related to the goals of the educational program and research-based child development (Grace

& Shores, 1998). A collection of annotated/unannotated copies of children's work and comments can provide evidence of children's progress over time and in a variety of situations (Grace & Shores, 1998).

The method of assessing children through *authentic, naturalistic observations* that occur on an ongoing basis is significant (Podmore, 2006). Early childhood educators observe and record children's behaviour by watching children in their natural environments as they carry out everyday activities. These observations have proven effective for purposes of recording children's development and accomplishments, and tailoring programmes and activities to meet young children's changing needs (Smith, 1998). There are different types of observation methods and each has its own unique purpose. Methods of observation include: anecdotal records; Functional Behavior Assessment (FBA); event sampling (frequency recording); duration recording; latency recording; time sampling; running records; specimen records; and rating scales (Wortham, 2008). Observations allow teachers to get to know the child as a unique individual and as a member of a group. Observation should occur during daily activities and teaching to describe the development and learning of children (Smith, 1998). Observations should not be the only form of assessment as it is difficult to gather valid and reliable information through this method only.

Children develop in their own way and at their own pace. Understanding the different ages and stages of child development is important for early educators and the use of a simple checklist of developmental abilities for different ages can be used to document developmental growth. A checklist can be used to measure early learning skills in order to probe further into areas that may require more in-depth review and can be used as a framework for assessment, instructional planning, record keeping, and communicating with parents (Wortham, 2008).

According to the research project of Mitchell (2008), 13% of ECE services used checklists in 2007. ECE teachers in New Zealand are reluctant to use checklists because they aim at assessing a child's activities over time and the acquisition of skills. Checklists often focus on what has or has not been achieved and can be viewed as a negative approach that compares children to a norm and do not take into account the unique attributes of each individual child. According to Mitchell (2008), teachers reported that checklists make judgments about activities or learning

outside of the learning context and not as they happen, failing to capture the full extent of learning that takes place.

Learning stories are being used to assess and plan for children's learning throughout New Zealand (Carr, Hatherly, Lee & Ramsey, 2003), but the inclusive special education policy confirmed the continued use of skills-based assessment practices in early intervention (Cullen, 2002). Williamson, Cullen, & Lepper (2006) reported that early intervention professionals believed that learning stories cannot be the only form of assessment used and a more precise tool is needed for developmental information.

Anecdotal records are brief narrative accounts describing a child's behaviour after it occurs. These records are collected over a period of time and are more specific in describing the detail of an observed event. Writing anecdotal records reveal children's interests and as a result assist teachers in planning experiences to expand on the children's play, learning and development (Gronlund, 1998). Recording what children have to say about what they are learning is also beneficial (Pramling, 1988). Children can be part of their own assessment (Cowie & Carr, 2003) and is important to encourage children to have an interest in and express themselves during learning experiences (Renninger, Hidi & Krapp, 1992). Blaiklock (2010b) describes learning notes, which is a form of anecdotal record. A learning note is description of a child's specific learning experience in a sentence or a short paragraph that is written immediately after it occurred. The learning note can later be interpreted and linked with the outcomes of *Te Whāriki* and include a range of learning areas.

The literature reveals the significance, considerations and shortcomings of the assessment methods deemed to be of most value in ECE in New Zealand. If implemented effectively and for a suitable purpose, each method can be beneficial and assist in enhancing teaching and learning in ECE services in New Zealand. Equally, no single method may be sufficient to meet all the relevant assessment purposes.

## Assessment Issues

### i. The role of the teacher in assessment

The role of the teacher in assessment in ECE is vital and a great deal of knowledge and skill is needed for teachers to effectively carry out assessment practices in ECE services (Krause, Bochner, & Duchesne, 2003). It is also essential that teachers have the knowledge and understanding of how assessment can assist them in: getting to know learners; day-to-day learning and teaching; identifying learner strengths, interests and needs; identifying teaching opportunities; and providing feedback to parents and staff.

Assessment approaches require teachers to carefully observe and identify the individual skills and behaviours of each child, which will equip them with the knowledge and understanding of the individual variations that exist in young children across all developmental areas (van der Merwe, 1988). Assessment assists teachers in matching what they know about an individual child and the way the child learns with teaching approaches designed to amplify the development of the whole-child (Gardner, 1993). Teacher knowledge about each child's learning and development, as well as cultural differences, will help them to understand the meaning of a child's response and to locate it on a developmental continuum.

Assessment can guide teachers in planning programmes that ensure a balance in learning experiences: experiences that help children progress toward defined goals; experiences that emerge from children's interests; and unexpected events that can be incorporated into the program in ways that comply with the goals and outcomes of the curriculum (Meisels, Bickel, Nicholson, Xue, & Atkins-Burnett, 2001). Assessment can help teachers decide which teaching strategies to use, when to use them and the type of learning or development they encourage (Woolfolk, 1987).

Effective assessment approaches help teachers to obtain the necessary knowledge of each individual child's strengths, interests and unique profiles. Most opportunities to extend children's learning experiences, skills and knowledge occur when teachers interact with children and respond to their interests and inquiries (Hedges & Cullen, 2005). These interactions can be ineffective if teachers do not have the knowledge or the skills identify learning and extend

children's learning experiences. Teachers should be equipped with knowledge of the typical progression of children's growing proficiency, and also be sufficiently familiar with age expectations.

Teachers need the knowledge and skill to decide how activities can fit together to benefit children's growth and development, as well as how to modify activities so that they are part of a continuum that is responsive to children's development. Many learning experiences require teachers to know about subject content and subject pedagogy in order for the children's learning to be extended (Kane, 2005).

Many parents like to have an understanding of the assessment process and what age-related expected learning and development needs to take place (Mitchell, 2008). Teachers are responsible for explaining the importance of ongoing assessment to parents and how their role is critical to the process. Families want to understand how their child is being assessed and what the findings mean to them and to the child (Mitchell, 2008). The more that parents are included in the assessment process the greater their ability to make fully-informed decisions in addition to the likelihood of their cooperation with the educational planning for their child.

It is important for teachers to use information gathered from assessment when planning programmes and the related learning and teaching practices and activities. Managers and the head teachers have a key role in helping teachers develop confidence in discussing and analysing various assessments. This process involves teachers sharing their expectations and understanding of standards with each other to improve the daily educational programmes that are implemented in the ECE service and the decisions made with regards to specific children's learning and development (Bradbeer, 2011).

The literature reveals the importance of teacher knowledge and skill in assessment and how beneficial assessment can be in assisting teachers to enhance teaching and learning. It can therefore be concluded that quality pre-service ECE teacher education is vital to ensure that teachers are equipped the skills and knowledge needed to effectively carry out assessment practices.

## ii. Teacher and specialist skills in assessment

Teacher education providers equip teachers with the skills needed for effective teaching, learning and assessment. ECE teachers are responsible for assessment, including the identification of possible learning barriers in all the important areas of learning and development. Teachers need the knowledge, ability, responsibility, confidence and support to be able to identify areas of concern with regards to normal, age-appropriate child development and learning so that the necessary support, intervention or specialist services can be put into place (Mitchell, 2008). The socio-cultural approach of *Te Whāriki* demands that teachers acknowledge the diversity of children. This requires the development of quality teachers “who know what works in early childhood teaching for maximizing children’s learning outcomes and reducing disparities amongst diverse children” (Farquhar, 2003).

Specialist providers (e.g. educational psychologists, occupational therapists, child psychologists, speech and language therapists) have extensive and in-depth knowledge in normal and delayed child development, early childhood education, psychology, education theories and community and family support services. Specialists also have expert skills in teaching, research, planning, communication, implementation of interventions, and monitoring and managing progress. Some ECE teachers have furthered their education and are equipped with specialist skills.

## iii. Assessment involvement and management

Teachers hold the most significant role in assessment in ECE; however, the children, parents and early intervention services also play an essential role in the assessment process. The managers play a role in monitoring and supporting the assessment process. It is important that each role player knows what their role is and how to constructively execute it.

The primary assessor in early childhood education is the teacher. The teacher needs to know: what learning and development has taken place; what learning and development needs to take place; and what learning and development should not yet take place because it is not age-appropriate (Hyson, 2003). Once that has been established teachers can constantly provide children with opportunities to learn that are closely congruent with where they are on a learning continuum.

Young children have the ability to self-assess (Cowie & Carr, 2003). Children benefit from seeing samples of their own work collected over time and from being able to see their own growth and progress. Children's judgements of their learning experiences provide genuine assessment information and helping children to become good self-assessors is a valuable skill that helps them in future learning (Pramling, 1988).

Parents play a vital role in assessment. To fully understand a child's development, a family-centred focus is important (Powell, 1989). Parents and teachers should work together as a team. Parents witness their children's functioning and behaviour in a wide variety of contexts, and their input is valued as part of the child's overall assessment. Information gathered from parents who know the child well and observe children's daily naturally occurring thinking, language, social, motor, and self-control skills is valuable (Whalley, 2001). This information provides more in-depth probes into specific skill areas when more comprehensive understanding of a particular area of development is needed. Including parents in the assessment and educational process also fulfils the philosophy of the National Early Childhood Education Curriculum in New Zealand, *Te Whāriki* (Ministry of Education, 2006).

There are a number of early intervention services that are funded by the Ministry of Education, but this research study will focus on Group Special Education (GSE) and Education Support Workers (ESW). GSE is the Special Education sector of the Ministry of Education. These professionals can be contacted to conduct assessments in order to collaborate with other specialists, teachers and parents to develop programmes for an individual child or groups of children with special educational needs (Ministry of Education, 2009). They also advise and provide support to schools such as professional development for teachers to help them identify and develop programmes for children with special education needs (Ministry of Education, 2009). Education support workers (ESW) are teacher aides that work in Early Childhood Education services. Teacher aides are valuable in supporting young children with special educational needs and can provide useful information for the assessment of the children's learning and developmental progress (Ministry of Education, 2009).

According to Kostelnik and Grady (2009), managers need to support and manage the following processes in assessment: the use of multiple assessment methods for specific purposes; the

identification of barriers and development of strategies to overcome them; the planning for new learning experiences; programme planning and teaching practices; and parent involvement in assessment. Effective managers develop systems for sharing information about programme effectiveness between staff, parents, specialists and other ECE services. The Ministry of Education (2011b) states that managers and teachers support each other to monitor and assess the responsibilities of the ECE service, the effectiveness of the unique processes, and how they benefit children's learning and development.

Managers, teachers, children, parents and early intervention services all play an important part in assessment in ECE. Each role-player provides different attributes to the assessment process and together, allow for holistic and authentic assessment practices to be achieved.

#### iv. Acquisition of assessment knowledge and skills

Teachers in ECE can gain and expand their knowledge and skills in assessment through a variety of means. The significance of the following means in relation to ECE in New Zealand will be further discussed: pre-service ECE teacher education programmes; colleagues; and professional development.

Early Childhood Education teaching qualifications differ internationally, but New Zealand qualifications are considered by the ECE Taskforce (2011) to be amongst the best in the world. In order to gain a qualification leading to teacher registration in ECE in New Zealand a three-year tertiary degree or one-year graduate diploma qualification is needed.

The ECE Taskforce (2011) states the following:

All Early Childhood Education teacher qualifications must be approved by both the New Zealand Teachers' Council and the New Zealand Qualifications Authority. Early Childhood Education qualifications offered by universities must be approved by the Committee on University Academic Programmes of Universities New Zealand. The content and quality of qualifications are reviewed regularly by these agencies (p. 153).

However, a broad range of organisations provide ECE teaching qualifications in New Zealand and about 52% of graduates into early childhood education are from non-university providers

(ECE Taskforce, 2011). Early Childhood Education teaching qualifications claim to cover a variety of essential competencies needed to ensure effective teaching practices and valuable learning and development in Early Childhood Education settings. The qualifications offered cover competencies in the New Zealand ECE curriculum; theories of pedagogy and teaching practice; the care and education of infants and toddlers; and how to work effectively in the New Zealand cultural context.

Early Childhood Education teaching qualifications should be of equal quality and standard and students should graduate well-equipped with necessary skills and knowledge (ECE Taskforce, 2011). The ECE Taskforce (2011) states that they want to ensure that all Early Childhood Education service providers offer qualifications of similar content and level of standard and quality, therefore the New Zealand Qualifications Authority is conducting a review of qualifications that focuses on non-university certificates and diplomas as well as the content and quality of Level 7 Early Childhood Education teaching qualifications.

Teachers learn a great deal from collaborating with their colleagues, particularly when they are open to learning new perspectives (Bradbeer, 2011). Diverse teachers have specialized knowledge of a variety of cognitive and learning styles. Teachers who use this knowledge to reduce the incongruence between teaching and learning styles can create better outcomes for children (York-Barr, Ghre & Sommers, 2007).

York-Barr et al. (2007) reveal that “Teachers indicated that the ability to observe one another while teaching was a means by which they expanded their own instructional repertoires” (p. 320).

Bradbeer (2011) interviewed teachers to determine their views on professional development that takes place in open learning spaces when teachers work together collaboratively. The teachers reported a number of cases in which they had learned from their colleagues and used the knowledge gained to adapt their own teaching practices. The results of the study revealed that teachers recognized the ways in which their colleagues questioned learners, extended their thinking processes, and extended learning in particular learning situations (Bradbeer, 2011). They also mentioned their improved ability to give regular feedback as a result of observing their colleagues. Villa, Thousand and Nevin (2008) suggest that “people who co-teach are in an ideal

situation to spur their own professional growth through dialogue with their co-teachers” (p. 138). Professional development is an essential requirement for a professional workforce as it encourages continuous improvement in the early childhood education and helps uphold professional standards (ECE Taskforce, 2011).

ECE teaching qualifications provide teachers with the key foundations in early childhood education, but in order to uphold and develop these baseline skills and competencies ongoing development and education is needed (Hyson, 2003). Professional development plays an essential role in ensuring the effective implementation of the curriculum and provides teachers with opportunities to develop skills for working with particular groups of children or children with special education needs (Carr, McGee, Jones, McKinley, Bell, Barr, et al., 2005).

Government-funded professional development is currently aimed at supporting ECE services in areas with low rates of ECE participation and that enrol children expected to gain the most from involvement in early childhood education (Pasifika, Māori, and children from low socio-economic environments) (Mitchell & Cubey, 2003). The ECE Taskforce (2011) has no evidence of the amount of private expenditure on professional development in New Zealand, but ECE services are expected to provide professional development to their staff and the costs will be considered in the ECE services’ applications for subsidy funding.

It can be concluded that the pre-service ECE teacher education providers have an enormous responsibility in ensuring that teachers are equipped with the knowledge and skills necessary to effectively carry out assessment practices. Providers are generally the first contact that student teachers have with the world of early childhood education and therefore their influence and guidance is of paramount importance. The experience gained through pre-service education influences the ideas and theories that young teachers go out into the world with, and these can then be enhanced through work experience with colleagues and professional development.

This literature review confirms that teacher knowledge, skill, understanding, and confidence in the principles, purposes, areas, and methods of assessment, are crucial to effective assessment that supports and improves teaching and learning in ECE. It affirms the critical role of the early childhood teacher, as well as other key role-players in the assessment process and emphasizes the vital importance of quality pre-service ECE teacher education in New Zealand. The research

study was therefore conducted to assess how well teachers understood the purpose of assessment, how comfortable they felt using a variety of methods and how they used the information collated from assessments for child, teacher and programme development. The research study also aimed at determining the goals of pre-service ECE teacher education providers in relation to teacher education in assessment in ECE in New Zealand.

### **3. Research Methodology**

#### **Aim**

This research study, using the method of questionnaires, aimed at creating an understanding of the range of approaches to assessment of children in early childhood education. One questionnaire explored the range of assessment methods used by teachers in ECE in New Zealand. Other areas explored were: how well teachers understood the purpose of assessment; how comfortable they felt using a variety of methods; and how they used the information collated from assessments for child, teacher and programme development (Appendix H). A second and similar questionnaire was used to clarify the aims of pre-service ECE teacher education in relation to assessment practices for early childhood education in New Zealand (Appendix I). The research study gained full approval (11/38) from the Massey University Human Ethics Committee (MUHEC) on the 2nd August 2011 (Appendix A).

#### **Method**

A 22-item questionnaire was developed on assessment practices based on findings and contradictions identified in literature research, and was an adapted version of the questionnaire developed by Bourke, Mentis and Todd (2010).

Questionnaires were used in order to gather quantitative data on teachers' current practices and the use of national assessment practices for children in early childhood education. The questionnaires allowed for data to be gathered in a standardised manner and resulted in responses that were objective (Mertens, 2004). The planning and design of a questionnaire was time-consuming and the returns were low (Cohen, Manion & Morrison, 2007).

There was also no means of determining the sincerity of the responses. However, the response time frame for the completion of the questionnaire was brief and a significantly large group could be reached. A large group response ensured a realistic, varied and true reflection of views and practices.

The types of questions ranged from asking when assessment should take place, to teachers' confidence in assessment, in order to gain comprehensive results that explored all facets of assessment in early childhood education. Teachers and programme coordinators were also asked to rate the usefulness of a range of 7 assessment tools, and were asked to indicate if, why or why not assessment of 14 identified areas took place. The assessment tools and areas were identified by adapting the Bourke, Mentis and Todd questionnaire. The tools and areas relate directly to ECE practice, according to information gained from literature research in ECE learning and development, and the Ministry of Education (Ministry of Education, 2004, 2007, 2009). The essential areas of development in ECE (physical, motor, sensory, socio-emotional, speech and language, and cognitive) or sub-areas within them, were included in the 14 identified areas. In some sections the respondents could choose to respond to more than one category. The questionnaires also included sections that provided opportunities for open-ended comments and subjective, qualitative data.

i. Interpretative-constructivist research

The research study had an interpretative-constructivist approach to research and had the purpose of understanding "the world of human experience" (Cohen & Manion, 1994, 36). The interpretative-constructivist approach to research depends on the "participants' views of the situation being studied" and acknowledges the influence of personal background and experiences on research (Creswell, 2003, p.8). Interpretative-constructivist research develops a pattern of findings throughout the research process and uses the quantitative data to support or extend on qualitative data, effectively enhancing the meaning and understanding of the overall findings.

ii. Quantitative and qualitative data analysis

The data collected was managed and analysed through a quantitative analysis of questionnaire data, using manual coding and graphing of data. Most of the questionnaire consisted of questions that required the respondent to make a choice from specific options and categories provided. This data was recorded in an excel worksheet using manual coding, after which it was converted into tables. The quantitative data could be replicated, analyzed and compared across categories. This allowed for a large amount of research information to be summarized with ease, greater accuracy and clear, objective results.

The qualitative data was gained from sections in which the respondents could comment or add personal or unique contributions. The qualitative data was analysed by identifying the following types of responses: similar and frequent; of high intensity; controversial; extreme; meaningful; unlike the majority of responses; and posed new ideas or thinking (Cohen & Manion, 1994).

The summarized quantitative and qualitative data could be used to support generalizations regarding the area of research (Bogdan & Biklen, 1992).

### **Sample**

One copy of the teacher questionnaire was sent to each of 80 randomly chosen education and care centres and kindergartens, in order to gain a realistic and varied response. The education and care centres and kindergartens, and contact information for the managers, were collected via a national database of ECE services provided to the researcher by one of her supervisors.

One copy of the pre-service ECE teacher education questionnaire was sent to each of the 26 pre-service ECE teacher education programmes in New Zealand. Although there are 18 pre-service ECE teacher education providers in New Zealand, some have more than one ECE teaching qualification programme. The programmes and contact information for the coordinators of all the pre-service ECE teacher education programmes in New Zealand were collected via the TeachNZ website. A random sample was not necessary as there were only 26 programmes and all of them were included.

The coordinators of all the pre-service ECE teacher education programmes in New Zealand and the managers of the education and care centres and kindergartens received the initial package containing:

- a cover letter (Appendix B and C);
- a consent form (Appendix D and E);
- an information sheet (Appendix F and G); and
- a questionnaire (Appendix H and I).

The information sheet for teacher respondents asked that any one qualified teacher completed the questionnaire in these ECE services. Similar questionnaires and information sheets were sent to the programme coordinators of the 26 pre-service ECE teacher education programmes in NZ. The questionnaires, information sheets, consent forms, and letters of invitation were sent by post. The completed questionnaires could be returned to the researcher via email or the post, as the respondents were dispersed throughout New Zealand. Pre-paid postage reply envelopes were provided in order to encourage a high response rate.

The teacher questionnaires were sent out on the 2nd August 2011 and the total length of the data collection phase was two months. After one month, 15 completed questionnaires from ECE centres and kindergartens and three completed questionnaires from pre-service ECE teacher education providers were returned. As 15 questionnaire ECE responses were returned, a further 80 questionnaires randomly selected from the national list of education and care centres and kindergartens were sent out, as the aim had been to continue until at least 25, but no more than 50 total responses were received. These numbers were agreed to by the researcher and the supervisors as being adequate for the research study. Questionnaires were also re-sent to the ECE teacher programmes whose responses had not been received. By the 30<sup>th</sup> September 2011, a total of 25 completed questionnaires from the ECE centres and kindergartens and a total of three completed questionnaires from the ECE teacher programmes had been received.

### **Ethical Considerations**

The questionnaire respondents were not asked to state their name or organisation on the questionnaire form and the questionnaires were separated from consent forms on arrival. No identifiable data was included in the final thesis or summary of findings and the institutions were made aware of this in the information sheet provided with the questionnaire.

The participants were asked to complete and sign a consent form that was separate from the questionnaire on arrival. Completion and return of the research questionnaire was also deemed to be providing consent to participate.

There was no relationship between the researcher and any research participant with the exception of one of the teacher education programmes for Massey University. As one of the research

supervisors was an ECE programme leader, the questionnaire for this programme was sent to an alternative staff contact.

Massey University is a sector competitor to other teacher education providers in New Zealand, who were asked to describe the extent to which varying approaches to early childhood assessment were included within their teacher education programmes. These providers may have been wary of sharing this kind of information with Massey; therefore the lead supervisor considered that it would be more reassuring to participants to know that a full ethics application had been completed.

Hardcopy data is stored in a locked cabinet, with the researcher having the only key. Electronic data is stored on a password protected computer or password protected data stick. Hardcopy materials and electronic data will be kept for up to two years following the completion of the study, after which time they will be destroyed or permanently deleted.

Aspects related to culture were considered, and acknowledgement of and respect for culture was maintained at all times. Any cultural issues were to be discussed with the thesis cultural advisor, approved by the Massey University Human Ethics Committee (MUHEC). Initial discussion with the thesis cultural advisor suggested that there would not be any cultural issues, but if any were to arise, a consultation process was to be put in place, consisting of a private discussion of the issues and guidance as to how to deal with the concerns in a way that was culturally respectful, positive and constructive.

## 4. Results

### Respondent Profile

Questionnaires were sent to a randomly selected sample of 180 ECE services and to each of 26 pre-service ECE teacher education programmes in New Zealand. A qualified teacher from the ECE services and the programme coordinator from each of the programmes were asked to complete the questionnaire.

The respondents from the ECE centres and kindergartens, as well as the ECE pre-service teacher education programmes, were females. The statistics according to the Education Counts New Zealand database reveals that the total (full time and part time) male to female ratio of early childhood teachers in New Zealand in 2010 was 1.7% male to 98.3% female (ECE Analysis Team, 2010). The gender percentage of respondents therefore matches the statistics.

The data showed that 72% of the teachers had full teacher registration, 28% had provisional registration and therefore all the teachers (100%) were qualified. The educators who responded to the questionnaire were experienced teachers with 40% having 11 years or more of teaching experience (12% had 21+ years of teaching experience). The results also indicate that 36% of the teachers worked in kindergartens, 52% in education and care centres and 12% in casual education and care centres.

The pre-service education programmes that responded, three in total, are all three years in duration and include 20 weeks of practicum. All three programmes are NQF level 7 qualifications, which is equivalent to an undergraduate or graduate degree.

The teachers and programme coordinators were invited to include personal comments on assessment in early childhood education in New Zealand. 41% of the teacher respondents and two of the three programme coordinators added their comments.

It can be concluded that the respondents from the ECE services were qualified, experienced, female teachers from different ECE service types. ECE teacher qualifications (level 7) offered by the providers that participated, include three years of studying and 20 weeks of practicum.

## Data

### i. Purpose of assessment

The research study aimed at exploring how well teachers understood the purposes of assessment, as well as the purposes encouraged and taught by the pre-service ECE teacher education providers.

The questionnaire asked teachers to indicate why they assessed learners. The purposes teachers gave for assessing learners were (see Table 1a):

- to help learners with their next step learning (87.5%);
- to recognise learners' strengths and weaknesses (75%),
- to adapt their teaching (68%); and
- to know what standard or level the learner has achieved (58.3%).

One teacher commented: "If we are not seeking to improve children's learning and development (their achievement), then we are not teaching." Another teacher stressed that "teachers should definitely be assessing for learning."

The smallest number of responses were to the entries suggesting that assessment occurred when the teachers disagreed with parents' views (12.5%), disagreed with specialists' assessment (12.5%), wanted to apply for resources for funding (12%), or wanted to compare a learner with other learners (12.5%). The data reveals that assessments sometimes take place when teachers do not know what to do to meet the learners' needs (50%) and when they want information for the parents (52.2 %). The number of responses (*n*) varies as some respondents did not respond to all the categories.

**Table 1a** Purposes of Assessment: Early Childhood Education Services

	<b>Mainly</b>		<b>Sometimes</b>		<b>Never</b>		
	Frequency	(%)	Frequency	(%)	Frequency	(%)	<i>n</i>
Don't know what to do to meet the learners needs	9	37.5	12	50	3	12.5	<b>24</b>
Don't know what the learner knows	11	45.8	11	45.8	2	8.4	<b>24</b>
Don't agree with the specialist assessment	3	12.5	6	25	15	62.5	<b>24</b>
Are applying for funding for resources	3	12.5	6	25	15	62.5	<b>24</b>
Want information for the parents	10	43.5	12	52.2	1	4.3	<b>23</b>
Want to help learners with their next step learning	21	87.5	3	12.5	0	0	<b>24</b>
Don't agree with the parents' views	3	12.5	12	50	9	37.5	<b>24</b>
Want to know what standard/level the learner has achieved	14	58.3	7	29.2	3	12.5	<b>24</b>
Want to know how learner compares with other learners	3	12.5	5	20.8	16	66.7	<b>24</b>
Want to know what learners strengths and weaknesses are	18	75	5	20.8	1	4.2	<b>24</b>
Want to know how to adapt your teaching	17	68	8	32	0	0	<b>25</b>

One teacher commented: “A sociocultural approach to learning and teaching means learning is seen as occurring in a social medium. Children are encouraged to learn alongside others. A team approach in which all the teachers have a collegial understanding of the children, both as individuals and as members of a group, is best.” Five teachers commented on how assessment and planning should be woven together. “Assessment is the art of the planning cycle,” commented a teacher. “Assessment needs to reflect the child and the strengths and interests they have and assessment needs a collaborative team approach,” commented another teacher.

The questionnaire asked the providers to indicate why teachers should assess learners. The results showed that the pre-service education programmes, three respondents in total, educate students to assess for the following purposes (see Table 1b):

- to help learners with their next step learning (3/3);

- to adapt teaching (3/3);
- to recognise learners' strengths and weaknesses (2/3);
- to know what standard or level the learner has achieved (2/3); and
- to gather information for parents (2/3).

The data reveals that the providers educate teachers to sometimes assess when:

- they do not know what to do to meet the learners' needs (2/3);
- the teachers disagree with parents' views (2/3);
- when they want to know what the learner knows (2/3).

The data reveals that the pre-service education programmes do not educate teachers to assess when:

- wanting to apply for resources or funding (2/3);
- disagreements with specialists' assessments occur (1/3);
- when wanting to compare a learner with other learners (1/3).

**Table 1b** Purposes of Assessment: Pre-service Education Providers

	Mainly	Sometimes	Never	
	Frequency	Frequency	Frequency	<i>n</i>
Don't know what to do to meet the learner's needs	1	2	0	3
Don't know what the learner knows	1	2	0	3
Don't agree with the specialist assessment	1	1	1	3
Are applying for funding for resources	1	0	2	3
Want information for the parents	2	1	0	3
Want to help learner with his/her next step learning	3	0	0	3
Don't agree with the parents' views	1	2	0	3
Want to know what standard/ level the learner has achieved	2	1	0	3
Want to know how learner compares with other learners	1	1	1	3
Want to know what learner's strengths and weaknesses are	2	1	0	3
Want to know how to adapt your teaching	3	0	0	3

The results indicate that both the teachers and education providers reported that it is important to assess to: help learners with their next step learning; adapt teaching; recognise learners' strengths and weaknesses; to know what standard or level the learner has achieved; and to gather information for parents. The teachers and education providers both indicated that assessment should sometimes be carried out when it is not known what to do to meet the learner's needs and when it is not known what the learner knows. Assessment for resources or funding and to compare learners is not viewed as significant.

ii. Confidence in assessment

Teachers may or may not understand the purposes of assessment, but the research study wanted to further explore whether teachers had the confidence to carry out the various assessment practices and whether the ECE education providers aimed at equipping teachers with the confidence needed.

The results indicated that the teachers were very confident in assessing day-to-day learning and teaching (88%), identifying strengths and interests (80%), identifying teaching opportunities (76%), and knowing the learner (72%) (see Table 2a). There was lower confidence for identifying learning needs (60%), providing feedback to parents (68%), and providing feedback to staff (64%). Low percentages of the teachers reported to be very confident in assessing for preparation for IEPs (44%) and accessing resources (44%). The teachers were least confident in their ability to access funding (32%).

The results from the pre-service education providers indicated that, after qualifying, teachers should be very confident in:

- knowing the learner (3/3);
- day-to-day learning and teaching (3/3);
- identifying strengths and interests (3/3);
- identifying teaching opportunities (3/3); and
- providing feedback to parents and staff (3/3) (see Table 2b).

The teachers should be very confident in assessing to identify learning needs (2/3) and confident in accessing resources (2/3) and funding (2/3). The results reveal that each provider responded differently to teachers' confidence in preparation for IEPs (see table 2b).

**Table 2a** Confidence in Assessment: Early Childhood Education Services

	Very confident		Confident		Not very confident		Not confident	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Accessing resources	11	<b>44</b>	11	<b>44</b>	3	<b>12</b>	0	0
Accessing funding	7	<b>28</b>	9	<b>36</b>	8	<b>32</b>	1	<b>4</b>
Knowing the learner	18	<b>72</b>	7	<b>28</b>	0	0	0	0
Preparation for IEPs	11	<b>44</b>	12	<b>48</b>	2	<b>8</b>	0	0
Day-to-day learning & teaching	22	<b>88</b>	3	<b>12</b>	0	0	0	0
Identifying strengths & interests	20	<b>80</b>	5	<b>20</b>	0	0	0	0
Identifying learning needs	15	<b>60</b>	8	<b>32</b>	0	0	0	0
Identifying teaching opportunities	19	<b>76</b>	5	<b>20</b>	0	0	0	0
Providing feedback to parents	17	<b>68</b>	6	<b>24</b>	0	0	0	0
Providing feedback to staff	16	<b>64</b>	9	<b>36</b>	0	0	0	0

**Table 2b** Confidence in Assessment: Pre-service Education Providers

	Very confident		Confident		Not very confident		Not confident	
	Frequency		Frequency		Frequency		Frequency	<i>n</i>
Accessing resources	<b>1</b>		<b>2</b>		0		0	<b>3</b>
Accessing funding	0		<b>2</b>		<b>1</b>		0	<b>3</b>
Knowing the learner	<b>3</b>		0		0		0	<b>3</b>
Preparation for IEPs	<b>1</b>		<b>1</b>		<b>1</b>		0	<b>3</b>
Day-to-day learning & teaching	<b>3</b>		0		0		0	<b>3</b>
Identifying strengths & interests	<b>3</b>		0		0		0	<b>3</b>
Identifying learning needs	<b>2</b>		<b>1</b>		0		0	<b>3</b>
Identifying teaching opportunities	<b>3</b>		0		0		0	<b>3</b>
Providing feedback to parents	<b>3</b>		0		0		0	<b>3</b>
Providing feedback to staff	<b>3</b>		0		0		0	<b>3</b>

In conclusion, both the teachers and the education providers acknowledged confidence in assessing day-to-day learning and teaching, identifying strengths and interests, identifying teaching opportunities and knowing the learner. The education providers reported that teachers should be very confident in assessing to identify learning needs and providing feedback to parents and staff. However, a significantly low percentage of teachers reported to be confident in assessing for these purposes. Confidence in assessment for IEP planning had mixed results from the education providers and a low percentage from the teachers. Confidence in assessing for funding and resources received the lowest percentages from teachers, but the education providers felt teachers should also be confident in assessment in these areas.

The researcher also wanted to explore teachers' views of their confidence and ability to assess learners with special education needs, as well as the specialist skills the ECE education providers felt teachers required.

According to Mitchell (2008), teachers are responsible for identifying areas of concern with regards to normal, age-appropriate child development and learning so that the necessary support, intervention or specialist services can be put into place. Specialists have expert skills in assessment and support teachers in planning, implementing, monitoring, and managing the intervention process, once the areas of concern have been identified by the teachers. When asked if specialist skills are needed to be able to work with learners with special education needs 58% reported that sometimes specialist skills are needed for teaching purposes, 52% reported that specialist skills are needed for learning purposes, and 50% of the teachers reported that sometimes specialist skills are needed for assessment purposes. These results suggest a connection between the three concepts of learning, teaching and assessment. The data showed that 28% of the teachers had qualifications in special or inclusive education. A teacher commented that teachers should support IEP planning, but should not be responsible for it as it is specialized. The Ministry of Education (2007, 2011c) explains that ECE teachers are required be involved in the design, development, implementation and evaluation of IEPs.

One pre-service education provider reported that specialist skills are needed for assessment and teaching purposes, but that specialist skills are not needed for learning purposes. The two other

providers responded that sometimes specialist skills are needed for assessment, teaching and learning purposes.

It can be concluded that a significant percentage of the teachers and education providers felt that specialist skills are needed for learners with special educational needs for assessment, teaching and learning purposes. The relevance of specialist skills for the everyday work of ECE teachers was also apparent.

### iii. Assessment methods used

The variety of assessment methods used by the teachers in the ECE services, as well as the assessment methods encouraged and instructed by the education providers, were investigated.

The teachers were asked to identify what assessment methods or tools they used, or did not use, and their reasoning for doing so. This list of assessment methods included a variety of assessment approaches used by teachers in early childhood education in New Zealand. The results indicated that the four main assessment methods were learning stories (80%); observations (64.8%); anecdotal records (61.6%); and annotated copies of children's writing or art (51.2%) (see Table 3a). These were followed by unannotated copies of children's writing or art (36%); and Early Childhood Exemplars (32%). The least used assessment methods were "other methods" (24%), explained by the participants as including photographs, videos, graded tasks, transition groups, information from parents, and checklists (8.8%).

The main reasons for teachers not using checklists were that the teachers considered the method not age-appropriate (24%) and that the method is not the role of the ECE teacher (24%). One teacher commented that she did not want "standardised assessment approaches which did not support the holistic way children learn". A small percentage of the teachers indicated they did not use Early Childhood Exemplars due to the fact that they reported not having enough training in it (8%), and that the method was too time-consuming (8%).

The assessment methods commonly used by the teachers were: learning stories; observations; anecdotal records; photographs; annotated copies of children's art or writing; and photos. However, there were a few negative comments from teachers about learning stories: "Learning stories are time-consuming"; "Learning stories is a red herring which distracts the Early

Childhood sector from identifying the obstacles learners may experience, which if not detected early, could affect their ability to learn at school”. A teacher reported that teachers should be taught a more comprehensive selection of tools. Another teacher stressed that in order to know if children’s needs are being met, teachers and parents must be able to compare data from various assessments. “Assessment is often seen as learning stories, which I do not see as adequate”. Another teacher commented that realistic and honest early assessment and subsequent support of challenges is crucial. The same teacher commented further by saying that children enter formal schooling at age five and learning barriers are often not identified, are ignored or not supported until it is a “problem”. The teacher feels learning barriers can affect self-image, confidence levels and love for learning, which can lead to further difficulties in literacy skills, writing skills, attention span and physical development.

The education providers were also asked to identify what assessment methods or tools they encourage, or do not encourage, and their reasoning for doing so. This list of assessment methods included a variety of assessment approaches used in early childhood education in New Zealand. The results indicated that the four most encouraged assessment methods were: learning stories (80%); observations (73.3%); anecdotal records (53.3%); and Early Childhood Exemplars (53.3%) (see Table 3b). These were followed by annotated copies of children’s writing or art (33.3%). The least encouraged assessment methods were checklists (6.7% and unannotated copies of children’s writing or art (6.7%).

One of the pre-service education programme coordinators reported that it is worrying that learning stories are often the only assessment tool used and made the following statement: “Many of the developmental observation skills have been lost with learning stories and with them the value they can bring to a balanced assessment”. Another programme coordinator reported that the current trend of learning stories over the past decade or so has seen lots of “nice stories” about children, but actual assessment is not always apparent and is often not connected to other assessments/observations.

The main reasons the providers did not encourage the use of checklists were that they did not give training in the use of it or it was considered that the method is not relevant to the role of an ECE teacher (see Table 3b). Annotated copies of children’s work, unannotated copies of

children's work and observations each received a response from a provider stating that they did not provide training in it. One provider reported not having heard of unannotated copies of children's work before.

**Table 3a** Types of Assessment Methods Used: Early Childhood Education Services

<b>METHOD USED</b>	To assess what learner has learned		To report to parents/ agencies		To assess IEP progress		To plan next teaching steps		To identify learning strengths and difficulties		<b>Total Responses</b>	
	<b>Frequency</b>	<b>%</b>	<b>Frequency</b>	<b>%</b>	<b>Frequency</b>	<b>%</b>	<b>Frequency</b>	<b>%</b>	<b>Frequency</b>	<b>%</b>	<b>Frequency</b>	<b>%</b>
Learning Stories	22	88	20	80	14	56	23	92	21	84	<b>100</b>	<b>80</b>
Annotated copies of children's writing or art	17	68	16	64	8	32	11	44	12	48	<b>64</b>	<b>51.2</b>
Unannotated copies of children's writing or art	10	40	12	48	4	16	9	36	10	40	<b>45</b>	<b>36</b>
Observations	16	64	16	64	15	60	15	60	19	76	<b>81</b>	<b>64.8</b>
Checklists	3	12	2	8	2	8	1	4	3	12	<b>11</b>	<b>8.8</b>
Anecdotal records	20	80	16	64	9	36	17	68	15	60	<b>77</b>	<b>61.6</b>
Early Childhood Exemplars	11	44	8	32	3	12	10	40	8	32	<b>40</b>	<b>32</b>
Other	7	28	6	24	4	16	7	28	7	28	<b>31</b>	<b>24.8</b>

**Table 3b** Types of Assessment Methods Used and Not Used: Pre-service Education Providers

<b>METHOD USED</b>	To assess what learner has learned	To report to parents / agencies	To assess IEP progress	To plan next teaching steps	To identify learning strengths & difficulties	<b>Total Responses</b>	
	<b>Frequency</b>	<b>Frequency</b>	<b>Frequency</b>	<b>Frequency</b>	<b>Frequency</b>	<b>Frequency</b>	<b>%</b>
Learning Stories	2	3	1	3	3	12	80
Annotated copies of children's writing or art	1	1	0	2	1	5	33.3
Unannotated copies of children's writing or art	1	1	0	0	1	1	6.7
Observations	3	2	2	2	2	11	73.3
Checklists	0	0	0	0	1	1	6.7
Anecdotal records	3	3	2	2	2	8	53.3
Early Childhood Exemplars	1	2	1	2	2	8	53.3
<b>METHOD NOT USED</b>	Have not heard of it	Do not provide training in the use of it	The level of the tool is not age-appropriate	The tool is not the role of ECE teachers	The assessment tool is too time-consuming	<b>Total Responses</b>	
	<b>Frequency</b>	<b>Frequency</b>	<b>Frequency</b>	<b>Frequency</b>	<b>Frequency</b>	<b>Frequency</b>	<b>%</b>
Learning Stories	0	0	0	0	0	0	0
Annotated copies of children's writing or art	0	1	0	0	0	1	6.7
Unannotated copies of children's writing or art	1	1	0	0	0	2	13.3
Observations	0	1	0	0	0	1	6.7
Checklists	0	2	0	1	0	3	20
Anecdotal records	0	0	0	0	0	0	0
Early Childhood Exemplars	0	0	0	0	0	0	0

iv. Usefulness of assessment information

The teachers and education providers were asked which assessments methods provided useful information.

The teachers reported that the most useful assessment information was achieved through learning stories (69.6%), and observations (56.5%) (see table 4a). The assessment information reported to be of least value were: checklists (41.7% not useful at all), unannotated copies of children's writing or art (20.8% not very useful). One teacher commented that learning stories reflect the holistic way in which children learn.

The pre-service ECE education providers reported that the most useful assessment information was achieved through learning stories (2/3), and annotated copies of children's writing or art (2/3) (see table 4b). All three providers (3/3) reported checklists to be useful. Observations, IEPs, peer assessments, and anecdotal records were all found to be either useful or very useful. None of the assessment methods were reported to be without use. However, one of the programme coordinators commented that learning stories are often not used as an assessment tool, even though they teach it. Another programme coordinator stated that learning stories are often nice 'vignettes' and not used for ongoing assessment at all.

v. Reasons for using assessment methods

The study aimed at determining the areas of learning assessed by teachers in ECE services and for what purposes. Furthermore, the study aimed at determining the areas of learning that the education providers encouraged and instructed teachers to assess, as well as the purposes thereof.

According to the results shown in Table 4a and 4b, assessment methods were used to assess what the learner had learned, to report, to assess IEP progress, to plan next teaching steps and to identify learning strengths and difficulties.

The results of the survey indicated that the teachers use the information obtained from assessment to improve the achievement of individual learners and groups (92%), to inform strategic planning and service self-review (88%), and evaluate the success of the service's curriculum and teaching programmes (84%).

The results revealed that all the pre-service education providers reported that the teachers should use the information gathered from assessment to improve the achievement of individual learners and groups (3/3), to inform strategic planning and service self-review (3/3), and evaluate the success of the service's curriculum and teaching programmes (3/3).

The areas of assessment for all learners in early childhood education were explored with the teachers. The teachers were asked to rate which areas of assessment they assessed, did not assess and the reasons for their response. Fifteen identified assessment areas were listed in the questionnaire. The results revealed that the seven highest percentages of responses were assessment of:

- social development (56%);
- self-help skills (53.6%);
- perseverance (52.8%);
- problem-solving skills (52.8%);
- fine motor skills (49.6%);
- gross motor skills (49.6%); and
- assessment of initiative (48.8%) (see Table 5a).

Assessment of the areas of sensory development received a low percentage of responses: baseline speech and language assessment (41.6%); baseline auditory and visual assessment (32%); and tactile assessment (28%). Other areas with a low response percentage were: baseline literacy assessment (36%); baseline numeracy assessment (35.2%); and assessment of long/short-term memory, which scored the lowest percentage (20.8%). According to the results shown in Table 5a, the teachers assessed the various areas to gain an understanding of what the learner had learned, to report, to assess IEP progress, to plan next teaching steps and to identify learning strengths and difficulties.

The main reasons for teachers not assessing certain learning areas were: they needed training in the assessment area (30 responses); the assessment of the area is not the role of the ECE teacher (24 responses); the teachers had not heard of the assessment area before (11 responses); and the assessment is not age-appropriate (8 responses). One teacher commented that teachers in early

childhood education in New Zealand are ignorant of auditory and visual processing and the significance of motor planning.

The results indicated the following:

- 7.2% did not assess tactile assessment;
- 5.6% did not assess short/long-term memory;
- 12% had not heard of tactile assessment;
- 16% had no training in baseline visual and auditory assessment;
- 20% had no training in tactile assessment;
- 16% reported that baseline visual and auditory assessment is not the role of the ECE teacher;
- 12% reported that numeracy assessment is not the role of the ECE teacher.

The areas of assessment for all learners in early childhood education were explored with the pre-service education providers. The programme coordinators were asked to rate which areas of assessment the programme encouraged teachers to assess, not to assess and the reasons for their responses. The results revealed that the 7 highest percentages were: assessment of social development (93.3%); assessment of self-help skills (93.3%); assessment of perseverance and problem-solving skills (86.7%); literacy assessment (86.7%); numeracy assessment (80%); and assessment of initiative (60%) (see table 5b). Assessment of baseline auditory development (13.3%); visual development (13.3%); and speech and language development (13.3%) received a low percentage of responses. Tactile assessment and long/short-term memory assessment received no responses (0%).

The main reasons for providers not encouraging tactile assessment and long/short-term memory assessment is either that they have not heard of it (1/3) or that they do not provide training in it (2/3) (see table 5b continued). The reasons for not encouraging the assessment of baseline visual, auditory and speech and language development are because they do not provide training in it and do not feel that it is the role of the ECE teachers

A teacher made the following comments about listening to the child's voice, an approach encouraged by *Te Whāriki*:

Listening to the child's voice only exhibits the child's strengths and interests and ignores the areas that could be developed or need to be developed, in order for the child to cope at school; cognitively, physically, socially and emotionally. How do we teach children to be strong-minded, independent problem-solvers? How do we challenge children, extend their thinking or expose them to new learning that they may love, but would never have chosen to engage in on their own for whatever reason. Children between the ages of three and five want to learn and as teachers we need to ensure that we expose and encourage them to learn in as many different areas, and in as many different ways as possible. Listening to the child's voice allows children to avoid certain learning and only engage in what they feel like. This is detrimental to learning and teaching and encourages lazy teachers.

**Table 4a** Usefulness of Assessment Information: Early Childhood Education Services

	Not at all useful		Not very useful		Useful		Very useful		Unsure		
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	<i>n</i>
Learning Stories	2	<b>8.7</b>	0	<b>0</b>	5	<b>21.7</b>	16	<b>69.6</b>	0	<b>0</b>	23
Annotated copies of children's writing or art	0	<b>0</b>	2	<b>8</b>	17	<b>68</b>	6	<b>24</b>	0	<b>0</b>	25
Unannotated copies of children's writing or art	0	<b>0</b>	9	<b>37.5</b>	11	<b>45.8</b>	3	<b>12.5</b>	1	<b>4.2</b>	24
Checklists	10	<b>41.7</b>	5	<b>20.8</b>	5	<b>20.8</b>	2	<b>8.3</b>	2	<b>8.3</b>	24
Anecdotal records	0	<b>0</b>	3	<b>12</b>	15	<b>60</b>	6	<b>24</b>	1	<b>4</b>	25
Peer assessment	2	<b>9.1</b>	4	<b>18.2</b>	11	<b>50</b>	3	<b>13.6</b>	2	<b>9.1</b>	22
Observations	0	<b>0</b>	0	<b>0</b>	10	<b>43.5</b>	13	<b>56.5</b>	0	<b>0</b>	23
IEPs	0	<b>0</b>	0	<b>0</b>	11	<b>44</b>	13	<b>52</b>	1	<b>4</b>	25

**Table 4b** Usefulness of Assessment Information: Pre-service Education Providers

	Not at all useful		Not very useful		Useful		Very useful		Unsure	
	Frequency		Frequency		Frequency		Frequency		Frequency	<i>n</i>
Learning Stories	1		0		0		2		0	<b>3</b>
Annotated copies of children's writing or art	0		0		1		2		0	<b>3</b>
Unannotated copies of children's writing or art	0		1		1		0		1	<b>3</b>
Checklists	0		0		3		0		0	<b>3</b>
Anecdotal records	0		0		2		1		0	<b>3</b>
Peer assessment	0		0		2		1		0	<b>3</b>
Observations	0		0		2		1		0	<b>3</b>
IEPs	0		0		2		1		0	<b>3</b>

**Table 5a** Reasons for Using Assessment Methods: Early Childhood Education Services

<b>METHOD USED</b>	<b>To assess what the learner has learned or his/her progress</b>		<b>To report to parents/ agencies</b>		<b>To assess IEP progress</b>		<b>To plan my next teaching steps</b>		<b>To identify learning strengths and difficulties</b>		<b>Total responses</b>	
	Frequency	(%)	Frequency	(%)	Frequency	(%)	Frequency	(%)	Frequency	(%)	Frequency	(%)
Assessment of fine motor skills	13	52	9	28	8	32	17	68	15	60	<b>62</b>	<b>49.6</b>
Assessment of gross motor skills	13	52	9	28	8	32	17	68	15	60	<b>62</b>	<b>49.6</b>
Baseline auditory assessment	7	28	11	44	5	20	7	28	10	40	<b>40</b>	<b>32</b>
Baseline visual assessment	7	28	11	44	5	20	7	28	10	40	<b>40</b>	<b>32</b>
Baseline speech and language assessment	9	36	13	52	7	28	11	44	12	48	<b>52</b>	<b>41.6</b>
Literacy assessment	12	48	7	28	2	8	11	44	13	52	<b>45</b>	<b>36</b>
Numeracy assessment	12	48	7	28	2	8	10	40	13	52	<b>44</b>	<b>35.2</b>
Tactile assessment	8	32	4	16	5	20	8	32	10	40	<b>35</b>	<b>28</b>
Assessment of long/short-term memory	5	20	3	12	3	12	6	24	9	28	<b>26</b>	<b>20.8</b>
Assessment of social development	16	64	13	52	6	24	17	68	18	75	<b>70</b>	<b>56</b>
Assessment of self-help skills	15	60	12	48	6	24	17	68	17	68	<b>67</b>	<b>53.6</b>
Assessment of perseverance	16	64	11	44	4	16	17	68	18	75	<b>66</b>	<b>52.8</b>
Assessment of problem-solving skills	15	60	11	44	5	20	17	68	18	75	<b>66</b>	<b>52.8</b>
Assessment of initiative	15	60	11	44	4	16	15	60	16	64	<b>61</b>	<b>48.8</b>
Other	1	4	0	0	0	0	1	4	1	4	<b>3</b>	<b>2.4</b>

**Table 5a.** Continued

<b>METHOD NOT USED</b>	<b>I have not heard of it</b>	<b>I need training it</b>	<b>The level of assessment is not age-appropriate</b>	<b>The assessment is not the role of ECE teachers</b>	<b>The assessment is too time-consuming</b>	<b>Total responses</b>	
	Frequency	Frequency	Frequency	Frequency	Frequency	<b>Frequency</b>	<b>(%)</b>
Assessment of fine motor skills	0	2	0	0	0	<b>2</b>	<b>1.6</b>
Assessment of gross motor skills	0	1	0	0	0	<b>1</b>	<b>0</b>
Baseline auditory assessment	0	4	0	1	0	<b>5</b>	<b>4</b>
Baseline visual assessment	0	4	0	1	0	<b>5</b>	<b>4</b>
Baseline speech and language assessment	0	2	1	1	0	<b>2</b>	<b>1.6</b>
Literacy assessment	0	3	2	0	0	<b>0</b>	<b>0</b>
Numeracy assessment	0	4	2	1	0	<b>7</b>	<b>5.6</b>
Tactile assessment	3	5	1	0	0	<b>9</b>	<b>7.2</b>
Assessment of long/short-term memory	2	3	2	0	0	<b>7</b>	<b>5.6</b>
Assessment of social development	1	1	1	0	0	<b>3</b>	<b>2.4</b>
Assessment of self-help skills	1	0	1	0	0	<b>2</b>	<b>1.6</b>
Assessment of perseverance	1	0	1	0	0	<b>2</b>	<b>1.6</b>
Assessment of problem-solving skills	1	0	1	0	0	<b>2</b>	<b>1.6</b>
Assessment of initiative	2	1	1	0	0	<b>4</b>	<b>3.2</b>
Other	0	0	0	0	0	<b>0</b>	<b>0</b>

**Table 5b** Reasons for Using Assessment Methods: Pre-service Education Providers

<b>METHOD USED</b>	<b>To assess what the learner has learned or his/her progress</b>	<b>To report to parents/agencies</b>	<b>To assess IEP progress</b>	<b>To plan my next teaching steps</b>	<b>To identify learning strengths and difficulties</b>	<b>Total responses</b>	
	Frequency	Frequency	Frequency	Frequency	Frequency	<b>Frequency</b>	<b>(%)</b>
Assessment of fine motor skills	1	2	1	2	1	7	46.7
Assessment of gross motor skills	1	2	1	2	1	7	46.7
Baseline auditory assessment	1	1	0	0	0	2	13.3
Baseline visual assessment	1	1	0	0	0	2	13.3
Baseline speech and language assessment	2	2	0	1	2	7	46.7
Literacy assessment	3	3	1	3	3	13	86.7
Numeracy assessment	3	3	1	3	2	12	80
Tactile assessment	0	0	0	0	0	0	0
Assessment of long/short-term memory	0	0	0	0	0	0	0
Assessment of social development	3	3	2	3	3	14	93.3
Assessment of self-help skills	3	3	2	3	3	14	93.3
Assessment of perseverance	3	3	1	3	3	13	86.7
Assessment of problem-solving skills	3	3	1	3	3	13	86.7
Assessment of initiative	2	2	1	2	2	9	60
Other	0	0	0	0	0	0	0

**Table 5b.** Continued

<b>METHOD NOT USED</b>	<b>I have not heard of it</b>	<b>The programme does not provide training it</b>	<b>The level of assessment is not age-appropriate</b>	<b>The assessment is not the role of ECE teachers</b>	<b>The assessment is too time-consuming</b>	<b>Total responses</b>	
	Frequency	Frequency	Frequency	Frequency	Frequency	<b>Frequency</b>	<b>(%)</b>
Assessment of fine motor skills	0	2	0	0	0	2	13.3
Assessment of gross motor skills	0	0	0	0	0	0	0
Baseline auditory assessment	0	3	0	1	0	4	26.7
Baseline visual assessment	0	3	0	1	0	4	26.7
Baseline speech and language assessment	0	2	0	1	0	3	20
Literacy assessment	0	0	0	0	0	0	0
Numeracy assessment	0	1	0	1	0	2	13.3
Tactile assessment	1	2	0	0	0	3	20
Assessment of long/short-term memory	1	2	0	0	0	3	20
Assessment of social development	0	1	0	0	0	1	6.7
Assessment of self-help skills	0	0	0	0	0	0	0
Assessment of perseverance	0	0	0	0	0	0	0
Assessment of problem-solving skills	0	0	0	0	0	0	0
Assessment of initiative	1	1	0	0	0	2	13.3
Other	0	0	0	0	0	0	0

**Table 6**      The Perceived Value of Different Assessment Purposes  
(from the highest to the lowest value)

<b>Teachers</b>	<b>Pre-service ECE teacher education providers</b>
Social development	Social development
Self-help skills	Self-help skills
Perseverance	Perseverance
Problem-solving	Problem-solving
Fine motor skills	Literacy
Gross motor skills	Numeracy
Initiative	Initiative
Baseline speech and language	Fine motor skills
Literacy	Gross motor skills
Numeracy	Baseline speech and language
Baseline auditory	Baseline auditory
Baseline visual	Baseline visual
Tactile	Tactile
Long/short term memory	Long/short term memory

vi.      Assessment involvement and management

The teachers and education providers were asked who should manage and be involved in assessment practices in ECE services.

According to the data, the teachers reported that the teacher, head teachers or both usually undertake the assessment process. The results also indicated that 78.3% of the teachers reported that the parents are sometimes involved in assessment. When the teachers were asked who they think should lead the assessment, and when combining the percentages of ‘sometimes’ and ‘usually’ the teachers ranked, in descending order of value: teachers, head teachers, the parent, GSE personnel, teacher aides, assistant supervisors, and managers. One of the teachers commented that teachers should not be solely responsible for assessment; it should be part of a collaborative approach.

The pre-service education providers reported that it is usually the role of the teachers and head teachers to undertake the assessment process. According to the research data, the manager, parent, GSE and Education Support Workers are sometimes involved in the assessment process, with the exception of one response that reported that the manager should never be involved in assessment.

vii. Assessment knowledge

The study aimed at establishing how ECE teachers gained their knowledge and skill in assessment, and in addition, how the education providers felt ECE teachers should gain knowledge and skill in assessment.

The results revealed that 84% of the respondents reported that they gained knowledge in assessment through professional development and through their colleagues. This was followed by 68% reported that they gained knowledge through professional reading, 60% through pre-service ECE teacher education and 20% through postgraduate study. None of the teachers responded to the option: “None of the above, I do not feel that I know how to assess children effectively”.

The pre-service education providers all reported that teachers learn to assess through pre-service teacher education, professional development and colleagues on the job. None of them responded to any of the other options listed: professional reading; postgraduate study; and “None of the above, teachers should not be responsible for assessment”.

viii. Assessment regularity

The teachers were asked how often assessment practices were carried out for the various purposes. The education providers were asked how often they encourage and instruct teachers to carry assessment for the various purposes.

The results revealed the following responses from the qualified ECE teachers:

For seeking funding purposes

- 90% never assess

For learning purposes

- 43.5% assess daily
- 39.1% assess monthly

For providing information to others

- 40.9% assess monthly
- 27.3% assess daily

For planning a programme for a child

- 39.1% assess monthly
- 30.4% assess weekly

For teaching purposes

- 34.7% assess monthly
- 34.7% assess daily

Two of the pre-service education providers reported that assessment for all the listed purposes should be conducted daily, with the exception of assessment for funding, which they both report should never be done. The remaining provider reported that assessment for funding, teaching and learning should be conducted monthly; assessment for providing information to others should be conducted daily; and assessment for individual programme planning should be conducted daily.

## 5. Discussion

The literature review and teacher comments stress the importance of assessment of learning for the purpose of getting to know a learner and identifying learner strengths, interests and needs. However, respondents from the pre-service ECE teacher education programmes and a significant number of teachers reported that assessment is sometimes carried out when teachers do not know what to do to meet the learners' needs and when they want to know what the learner knows. Learning and development in the early childhood years is dynamic and constant. Programme planning, teaching practices and learning experiences can only be enhanced if teachers have confidence in the assessment of learners' strengths, interests and needs.

The education providers reported that teachers should be very confident in assessing to identify learning needs and providing feedback to parents and staff; however, a significantly low percentage of teachers reported that they were confident in assessing for these purposes. The literature reports that parents are encouraged to provide and are entitled to information about their child's learning and development and that managers, teachers and parents need to support each other to monitor and assess the effectiveness of the unique processes and how they benefit children's learning and development. The literature further emphasises the importance of teachers' knowledge, ability, responsibility, confidence and support in identifying areas of concern with regards to normal, age-appropriate child development and learning so that the necessary support, intervention or specialist services can be put into place. In order for ECE to be most effective, ECE services must ensure that parents and staff work in collaboration with one another. This can be achieved by developing, implementing, achieving and maintaining procedures that are feasible and allow for effective assessment practices to take place.

The Ministry of Education (2007, 2011c) states the information gathered from assessment is used for preparation, planning and implementation of Individual Education Plans (IEPs) for children with special needs in ECE. It further explains that ECE teachers are required be involved in the design, development, implementation and evaluation of IEPs. The results revealed that each respondent from the ECE education programmes answered differently to teachers' confidence in preparation for IEP, ranging from very confident to not very confident. Added to this, a low

percentage of the teacher respondents (44%) reported to be very confident in preparation of IEPs and a teacher commented that teachers should not be responsible for it as it is specialized.

According to *Education Counts* (ECE Analysis Team, 2010), as at 1 July 2010, there were 4321 licensed ECE services in New Zealand. If every ECE service in New Zealand had one child with special learning needs, keeping in mind that some services could have more than one, the Ministry of Education would need a considerable number of qualified specialists to design, development, implement and evaluate IEPs for the children. This is not feasible, therefore ECE teachers need to be educated with the knowledge and skills to develop and implement effective IEPs and only call for specialist support in extreme or unsuccessful cases. Besides, inclusive education approaches demand that teachers engage and accept responsibility for IEPs.

The literature research reveals the importance of assessing for the purpose of assisting ECE services in applying for the relevant funding needed and obtaining resources required for effective and comprehensive teaching and learning. According to the data, assessment for the purposes of accessing resources or funding was not viewed as significant and teachers were least confident in their ability to assess for funding and resources, yet the majority of education providers considered that teachers should be confident in accessing resources and funding. Resources and funding can, in many ways, play a significant role in enhancing teaching practices and learning opportunities in ECE. It is therefore important that ECE services include the assessment for funding and resources as a role of the staff employed.

Learning stories received the highest percentage of responses from the teachers and the education providers with regards to the method of assessment used. There were, however, comments from teachers stating concerns about the adequacy, use and effectiveness of learning stories. According to the literature, learning stories have received widespread support, but there has also been much speculation with regards to whether it is a valuable and practical means of assessing children's learning and development. Teachers need the knowledge, skill and understanding of how to use learning stories effectively and for which purposes of assessment they are most successful. Not all assessment purposes can be successfully carried out through learning stories, therefore teachers need to be educated in multiple assessment methods and the purposes that are best achieved by them.

Research confirms that the Early Childhood Exemplars are tools developed to help teachers improve the quality of teaching, learning and assessment. They provide support with regards to compiling beneficial learning stories. The results of the survey indicated that few teachers and a significantly low percentage of the education providers encouraged the use of Early Childhood Exemplars for the different purposes of assessment. The teachers reported not using Early Childhood Exemplars due to the fact that they reported not having enough training in it and that the tool was too time-consuming. It can be concluded that the education in Early Childhood Exemplars and learning stories needs attention. Pre-service ECE teacher education may need to be adapted or expanded. For both pre-service education and ongoing professional development, further guidelines and support are needed for teachers with regard to when, how and what to assess, and to ensure learning stories are a fully effective assessment approach.

According to the research, checklists enable teachers to understand and identify the various stages of child development and can be used to document developmental growth across different age groups. The results indicated that a low percentage of teachers did not find checklists useful at all however, all three providers reported checklists to be useful. The teachers considered the method to not be age-appropriate and reported that education providers do not provide training in the use of it. Williamson, Cullen, & Lepper (2006) reported that early intervention professionals believed that learning stories cannot be the only form of assessment used and a more precise tool is needed for developmental information.

A checklist can be used to measure early learning skills in order to probe further into areas that may require more in-depth review and Mitchell (2008) mentions the need for teachers to be able to identify areas of concern, yet 24% of the teachers and one education provider reported that skill-based assessment, such as checklists, is not the role of the ECE teacher. According to Mitchell (2008), ECE services are reluctant to use checklists because they aim at assessing the acquisition of skills and areas of development over time, yet 58.3% of the teachers and two of the three providers in this study reported that one of the main purposes of assessment is to assess what standard or level the learner has achieved. This is an area in which further, in-depth research is needed to substantiate the findings.

The research of Cowie & Carr (2003) states that assessment in early childhood education should include the use of multiple assessment methods to assist in identifying and understanding the various facets of learning and development. Teachers should not use checklists as the only form of assessment, but should consider checklists as a means of assessing age-appropriate development. The providers should equip teachers with the knowledge of how checklists can be beneficial and when they can be used.

The research considers samples of children's work to be valuable as they can be related to the curriculum outcomes; occur on a daily basis; require little input from teacher; show progress over time and in a variety of situations; and cover numerous learning areas. The results of the survey, however, revealed education providers that do not provide education in the use of annotated and unannotated collection of children's work. One of the education providers had not heard of the assessment method. In addition, a low percentage of teachers reported using annotated and unannotated work for assessment purposes. This assessment method is uncomplicated, valuable and naturally occurring in the ECE where learning is dynamic and the role of the teacher is demanding. Teachers should therefore be encouraged by education providers and *Te Whāriki* to make use of children's work for annotated and unannotated assessment purposes.

A significantly high percentage of teachers reported using observation as their main assessment method, yet one of the education providers reported not providing training in observation as an assessment method. This could be the result of misinterpretation of the question, but if the answer was genuine, it allows for discussion. Learning stories, annotated copies of children's work, checklists and anecdotal records cannot be completed without observation. Observation is therefore crucial in assessment in ECE, and education providers need to ensure that teachers are equipped with the necessary knowledge and skills in observation, as well as how to use what is observed in other methods of assessment.

The Ministry of Education *Kei Tua o te Pae* exemplar books in the Symbol Systems and Technologies for Making Meaning series (Ministry of Education, 2009), focus on assessing oral, visual and written literacy and mathematics in ECE. The data in this study revealed that the education providers encourage the assessment of literacy and numeracy. However, a

significantly low percentage of teacher respondents reported assessing literacy and numeracy and teachers reported that they did not receive training in it and that it is not age-appropriate learning in ECE. It can be concluded that there is disparity with regards to literacy and numeracy in ECE and the teaching, learning and assessment thereof.

The education providers and the teacher respondents had low percentages of responses to the use of assessment methods to assess baseline auditory development; baseline visual development; baseline speech and language development; tactile assessment; and long/short-term memory assessment. Tactile assessment and long/short-term memory assessment received no responses from the education providers because they either had not heard of it or didn't provide training in it. The reasons for not encouraging the assessment of baseline visual, auditory and speech and language development is because they do not provide training in it and did not feel that it is the role of the ECE teachers. The results also indicated that some of the teachers had no training in baseline visual and auditory assessment and tactile assessment. According to the aim of *Te Whāriki*, the curriculum focuses on the following areas of learning and development: physical, motor, sensory, socio-emotional, speech and language, and cognitive. The assessment of auditory, visual, speech and language, tactile and long/short-term memory learning and development is therefore a requirement of *Te Whāriki*. The literature review also states that assessment practices, that cover all the necessary learning areas, should document whether age-appropriate, holistic learning and development take place.

With regards to how knowledge in assessment is gained, the percentages of responses from teachers were higher for professional development, colleagues and professional reading than pre-service ECE teacher education and postgraduate study. The pre-service education providers, however all reported that teachers primarily learn to assess through pre-service teacher education and then through professional development and colleagues on the job. According to the ECE Taskforce (2011) the Early Childhood Education teaching qualifications cover a variety of essential competencies needed to ensure effective teaching practices and valuable learning and development in Early Childhood Education settings. The literature review affirmed the responsibility that pre-service ECE teacher education providers have in ensuring that teachers are equipped with the knowledge and skills necessary to effectively carry out assessment practices. This highlights the importance for pre-service ECE teacher education providers to review their

programmes to ensure that they adequately prepare ECE teachers to engage effectively with assessment.

A large percentage of teachers reported assessing monthly for the purposes of teaching, learning, programme planning and providing information to others. Two of the pre-service education providers, however, indicated that assessment for all the purposes should be conducted daily. The literature review includes the concern as to whether all areas of learning can be effectively assessed and enhanced if assessments are conducted once a month. The review encourages teachers to compile regular and ongoing assessment for every child in order to ensure continuity in learning and development. Carr (2008) states that continuity links past, present and possible futures and that separate pieces of assessment are unlikely to make sense of overall progress if the framework within which they are organised is not clear (Sutton, 1992). Carr also discusses the importance of assessing “connected” thinking which involves “the students’ own perceptions of similar and different learning tasks and learning experiences” (Carr, 2008, p.11).

The results from the teachers and the programme providers indicated that the managers do not play a significant role in assessment and are not expected to. The literature review reveals that the assessment framework of an ECE service, as well as the effectiveness thereof, should be overseen and reviewed by all staff members, including the manager. Assessment is a significant component of an ECE service and should be well-managed, thus a centre manager, whose responsibility lies in centre management, should have a role in the management of the overall assessment process. Managers and the head teachers have a key role in helping teachers develop confidence in discussing and analysing various assessments. Managers and teachers should review assessments to ensure that the ECE service’s programmes are succeeding in helping young children meet developmental and learning expectations.

## 6. Conclusion

The results revealed differences in the regularity of assessments. Regular, continuous and multiple assessment practices should be carried out. This forms part of the planning of the programme and the individual teacher roles. 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. *Kei Tua o te Pae* does not say that learning stories have to be the only approach used, and it seems providers value a range of methods. A variety of assessment methods should be implemented that ensure that all the necessary, age-appropriate areas of learning and development are covered. Quality management and monitoring of assessment practices, as well as support and guidance are essential to ensure that assessments are genuine, beneficial and regular. And multiple

The pre-service ECE teacher education programmes need to be reviewed to ensure that teachers are receiving adequate and equal knowledge in effective ECE practices that encourage and ensure learning and development in all the necessary areas, as well as the related assessment practices. Teachers need sufficient education in the development of IEPs for children with special educational needs. Even though teachers learn from their colleagues, professional development and experience, pre-service teacher education should ensure that teachers enter services with the key foundations to feel confident in executing the various practices in ECE, with the guidance and support of managers, head teachers and other experienced staff members.

A main difference in New Zealand between ECE services and schools is that principals of schools are all former teachers, but this is not a requirement for the managers of services in ECE. The success of teaching, learning and assessment processes lies in the management, planning, guidance and support thereof. Head teachers play a leading role in ensuring this success, but employing managers with knowledge, skill and experience in ECE will improve the overall management and quality of ECE services.

It seems that there is an assumption amongst ECE teachers that they are not responsible for formal observations and the assessment of the following areas: early literacy and numeracy skills; baseline visual and auditory skills; tactile skills and long/short term memory skills. If teachers are not responsible, then who is responsible for these skills that are developmentally

essential or needed in preparation for formal schooling? Specialists can only be contacted once barriers have been identified by parents or teachers. If teachers do not implement assessment practices that cover all areas of learning and development, then barriers in some areas could go unnoticed. The importance of the role of teachers in early childhood assessment should be reviewed by the Ministry of Education and ultimately the pre-service ECE teacher education programmes in New Zealand.

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## 8. Appendices

### Appendix A

### MUHEC Letter of Approval



MASSEY UNIVERSITY

2 August 2011

FILE

Emma Loggenberg  
26a Richards Avenue  
Forrest Hill  
AUCKLAND 0620

Dear Emma

**Re: HEC: Southern B Application – 11/38**  
**Assessment in Early Childhood Education in New Zealand**

Thank you for your letter dated 18 July 2011.

On behalf of the Massey University Human Ethics Committee: Southern B I am pleased to advise you that the ethics of your application are now approved. Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval 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

Dr Nathan Matthews, Acting Chair  
**Massey University Human Ethics Committee: Southern B**

cc Dr Valerie Margrain  
School of Arts, Development  
& Health Education  
PN900

Dr Kama Weir  
School of Arts, Development  
& Health Education  
PN900

Dr Gwen Gilmore  
School of Curriculum & Pedagogy  
PN900

Mrs Roseanne MacGillivray  
Graduate School of Education  
PN900

Te Kunenga  
ki Pūrehuroa

Massey University Human Ethics Committee  
Accredited by the Health Research Council

Research Ethics Office, Massey University, Private Bag 11222, Palmerston North 4442, New Zealand  
T +64 6 350 5573 F +64 6 350 5575  
E humanethics@massey.ac.nz animalethics@massey.ac.nz gtc@massey.ac.nz  
www.massey.ac.nz

**Appendix B****Cover Letter: Qualified Teachers in Early Childhood Services**

Dear Centre Manager

I am a Masters student in Educational Psychology at Massey University. As part of this degree I am undertaking a research project leading to a thesis, which I encourage your centre to take part in.

The project I am undertaking is to research basic assessment practices in Early Childhood Education (ECE) in New Zealand. I will be surveying up to 50 qualified teachers from diverse centres, and all teacher education programmes.

It would be greatly appreciated if one qualified ECE teacher at your centre could complete the questionnaire provided.

More information about the research project can be found in the Information Sheet that has been attached to the questionnaire.

Please complete the consent form and the questionnaire and return them both by the 31 August 2011 in the stamped addressed envelopes provided. The consent form will be separated from the questionnaire before data is analysed in order to protect the centre anonymity.

If you would like a summary of the findings for distribution to all the staff once the research is complete, please include your email contact details in the section provided on the consent form.

Thank you for your help.

Emma Loggenberg (Researcher)

Signed: \_\_\_\_\_

**Appendix C****Cover Letter: Pre-service ECE Teacher Education Providers**

Dear Programme Coordinator

I am a Masters student in Educational Psychology at Massey University. As part of this degree I am undertaking a research project leading to a thesis, which I encourage your programme to take part in.

The project I am undertaking is to research basic assessment practices in Early Childhood Education (ECE) in New Zealand. I will be surveying up to 50 qualified teachers from diverse centres, and all teacher education programmes.

It would be greatly appreciated if you or one of your staff members could complete the questionnaire provided.

More information about the research project can be found in the Information Sheet that has been attached to the questionnaire.

Please complete the consent form and the questionnaire and return them both by the 31 August 2011 in the stamped addressed envelopes provided. The consent form will be separated from the questionnaire before data is analysed in order to protect the centre anonymity.

If you would like a summary of the findings for distribution to all the staff once the research is complete, please include your email contact details in the section provided on the consent form.

Thank you for your help.

Emma Loggenberg (Researcher)

Signed: \_\_\_\_\_

**Appendix D****Consent Form: Qualified Teachers in Early Childhood Services****Assessment in Early Childhood Education in New Zealand****Questionnaire:****For Qualified Teachers in Early Childhood Education Services****CONSENT FORM**

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.

**Centre Manager**

I agree that my staff may participate in this study under the conditions set out in the Information Sheet.

**Name of centre:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Full Name - printed:** \_\_\_\_\_

If you would like a summary of the findings for distribution to all the staff once the research is complete, please include your email contact details and the findings will be emailed to you.

**Email:** \_\_\_\_\_

**Staff Member**

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

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Full Name - printed:** \_\_\_\_\_

**Appendix E****Consent Form: Pre-service ECE Teacher Education Providers**
**Massey University**

 COLLEGE OF EDUCATION  
 Te Kupenga o Te Mātauranga

**Assessment in Early Childhood Education in New Zealand**
**Questionnaire:**
**For all Pre-Service Early Childhood Education Teacher Education Providers**
**CONSENT FORM**

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.

**Programme Coordinator**

I agree that my staff may participate in this study under the conditions set out in the Information Sheet.

**Name of programme:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Full Name - printed:** \_\_\_\_\_

If you would like a summary of the findings for distribution to all the staff once the research is complete, please include your email contact details and the findings will be emailed to you.

**Email:** \_\_\_\_\_

**Staff Member**

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

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Full Name - printed:** \_\_\_\_\_

**Appendix F****Information Sheet: Qualified Teachers in Early Childhood Services****Assessment in Early Childhood Education in New Zealand**

**Questionnaire:**  
**For Qualified Teachers in Early Childhood Education Services**

**INFORMATION SHEET**

**Researcher:** Emma Loggenberg: Graduate School of Education, Massey University

I am a Masters student in Educational Psychology at Massey University. As part of this degree I am undertaking a research project leading to a thesis, which I encourage you to take part in.

The project I am undertaking is to research basic assessment practices in Early Childhood Education (ECE) in New Zealand. I will be researching the use of a range of approaches to assessment of children in ECE and pre-service early childhood teacher education. My aims are to determine the range of assessment methods used by teachers in Early Childhood Education in New Zealand, as well as their understanding of purposes for assessment, how comfortable they feel using varied methods and how information gained from assessments is utilized for child, teacher and centre development. I would also like to determine the aims of pre-service ECE teacher training providers in relation to teacher education in assessment in Early Childhood Education in New Zealand.

I will be surveying up to 50 qualified teachers from diverse centres, and all teacher education programmes. One qualified ECE teacher from each centre approached will be asked to complete a questionnaire. It is envisaged that the questionnaire will take about half an hour to complete and may be completed in your own time. Any supporting documentation and literature, related to the questionnaire, would be greatly appreciated. Please return questionnaire and consent form by post in the stamped addressed envelopes provided by the 23 September 2011.

Should you wish to withdraw from the project, you may do so without question at any time before the data is analysed. Responses collected will form the basis of my research project and will be put into a written report on an anonymous basis. It will not be possible for you or your institution to be identified in the final report or any subsequent publication as only grouped responses will be presented. A section is included in the consent form inviting the centre manager to add the email contact details if the centre would like an email of the summary of findings once the research is complete. The consent form will be separated from the questionnaire before data is analysed in order to protect the centre anonymity. All material collected will be kept confidential. No other person, besides myself and my supervisors, Valerie Margrain and Gwen Gilmore, will view the questionnaires. No identifying information will be included in final reports or subsequent publications.

The thesis will be submitted for marking to the Graduate School of Education and deposited in the Massey University Library. It is intended that one or more articles will be submitted for publication in education journals. Questionnaires will be destroyed two years after the end of the project.

*“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 11/38. If you have any concerns about the conduct of this research, please contact Dr Nathan Matthews, Acting Chair, Massey University Human Ethics Committee: Southern B, telephone 06 350 5799 x 8729, email [humanethicsouthb@massey.ac.nz](mailto:humanethicsouthb@massey.ac.nz).”*

If you have any questions or would like to receive further information about the project, please contact me at 09 410 2452 or my supervisor, Valerie Margrain, at the Graduate School of Education at Massey University, Palmerston North.

Massey University Manawatu  
Private Bag 11 222  
Palmerston North 4442  
New Zealand  
0800 627 739

Thank you for your help.

Emma Loggenberg (Researcher)

Signed: \_\_\_\_\_

**Appendix G****Information Sheet: Pre-service ECE Teacher Education Providers****Assessment in Early Childhood Education in New Zealand**

**Questionnaire:**  
**For all Pre-Service Early Childhood Education Teacher Education Providers**

**INFORMATION SHEET**

**Researcher:** Emma Loggenberg: Graduate School of Education, Massey University

I am a Masters student in Educational Psychology at Massey University. As part of this degree I am undertaking a research project leading to a thesis, which I encourage you to take part in.

The project I am undertaking is to research basic assessment practices in Early Childhood Education (ECE) in New Zealand. I will be researching the use of a range of approaches to assessment of children in ECE and pre-service early childhood teacher education. My aims are to determine the range of assessment methods used by teachers in Early Childhood Education in New Zealand, as well as their understanding of purposes for assessment, how comfortable they feel using varied methods and how information gained from assessments is utilized for child, teacher and centre development. I would also like to determine the aims of pre-service ECE teacher training providers in relation to teacher education in assessment in Early Childhood Education in New Zealand.

I will be surveying up to 50 qualified teachers from diverse centres, and all teacher education programmes. One staff member from each programme approached will be asked to complete a questionnaire. It is envisaged that the questionnaire will take about half an hour to complete and may be completed in your own time. Any supporting documentation and literature, related to the questionnaire, would be greatly appreciated. Please return questionnaire and consent form by post in the stamped addressed envelopes provided by the 23 September 2011.

Should you wish to withdraw from the project, you may do so without question at any time before the data is analysed. Responses collected will form the basis of my research project and will be put into a written report on an anonymous basis. It will not be possible for you or your institution to be identified in the final report or any subsequent publication as only grouped responses will be presented. A section is included in the consent form inviting the programme coordinator to add the email contact details if the programme would like an email of the summary of findings once the research is complete. The consent form will be separated from the questionnaire before data is analysed in order to protect the programme anonymity. All material collected will be kept confidential. No other person, besides myself and my supervisors, Valerie Margrain and Gwen Gilmore, will view the questionnaires. No identifying information will be included in final reports or subsequent publications.

The thesis will be submitted for marking to the Graduate School of Education and deposited in the Massey University Library. It is intended that one or more articles will be submitted for publication in education journals. Questionnaires will be destroyed two years after the end of the project.

*“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 11/38. If you have any concerns about the conduct of this research, please contact Dr Nathan Matthews, Acting Chair, Massey University Human Ethics Committee: Southern B, telephone 06 350 5799 x 8729, email [humanethicsouthb@massey.ac.nz](mailto:humanethicsouthb@massey.ac.nz).”*

If you have any questions or would like to receive further information about the project, please contact me at 09 410 2452 or my supervisor, Valerie Margrain, at the Graduate School of Education at Massey University, Palmerston North.

Massey University Manawatu  
Private Bag 11 222  
Palmerston North 4442  
New Zealand  
0800 627 739

Thank you for your help.

Emma Loggenberg (Researcher)

Signed: \_\_\_\_\_

**Appendix H****Questionnaire: Qualified Teachers in Early Childhood Services**

**Questionnaire:**

**For Qualified Teachers in Early Childhood Services**

**DEMOGRAPHICS**

1. **My teaching experience:**    ☐ 0-5 years                      ☐ 6-10 years  
    ☐ 11-20 years                      ☐ 21+ years
2. **My role in the centre is:**    ☐ Teacher                              ☐ Head Teacher  
    ☐ Assistant Supervisor    ☐ Manager  
    ☐ Other (please state): \_\_\_\_\_
3. **My qualifications:**    ☐ Diploma of Teaching                      ☐ Bachelor Degree  
    ☐ Postgraduate Diploma                      ☐ Masters Degree  
    ☐ Other (please state): \_\_\_\_\_
4. **Year that my teaching qualification was gained:** \_\_\_\_\_
5. **Registration:**    ☐ Full                      ☐ Provisional                      ☐ Not registered
6. **I am:**    ☐ Male    ☐ Female

**7. I have qualifications or attended courses in special education or inclusive education:**

☐ Yes      ☐ No

If yes, please list:

a) Relevant courses or papers: \_\_\_\_\_

b) Duration of course/qualification: \_\_\_\_\_

**8. I work in a:**      ☐ Kindergarten      ☐ Education and Care Centre

☐ Other (*please state*): \_\_\_\_\_

**SECTION ONE – PURPOSE OF ASSESSMENT**

**9. In general you assess when you:**

	Mainly	Sometimes	Never
1. Don't know what to do to meet the learner's needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Don't know what the learner knows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Don't agree with the specialist assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are applying for resources or funding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Want information for the parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Want to help learners with their next step learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Don't agree with the parents' views	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Want to know what standard/level the learner has achieved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Want to know how the learner compares with other learners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Want to know what the learners' strengths and weaknesses are	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Want to know how to adapt your teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Other ( <i>please specify</i> ):			

**10. How confident are you in your ability to assess children in early childhood education for the following purposes:**

	Very confident	Confident	Not very confident	Not confident at all
1. Accessing resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Accessing funding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Knowing the learner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Preparation for an Individualised Education Programme (IEP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Day-to-day learning and teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Identifying the learner's strengths and interests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Identifying the learner's learning needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Identifying teaching opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Providing feedback/discussion with parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Providing feedback to staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**11. When you have a learner with special education needs in your centre, do you need specialist skills in:**

	Yes	No	Sometimes
1. Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SECTION TWO – THE ASSESSMENT APPROACH

12. Please indicate how you USE the following methods for assessing learners in early childhood education. If you DO NOT use the method, please indicate why not. You may tick several boxes if more than one statement applies.

	METHOD IS USED					METHOD IS NOT USED				
	To assess what the learner has learned	To report (e.g., to parents, agencies)	To assess IEP progress	To plan next teaching steps	To identify learning strengths and difficulties	Have not heard of it	Do not provide training in the use of it	The level of the assessment tool is not age-appropriate	The assessment tool is not the role of ECE teachers	The assessment tool is too time-consuming
1. Learning Stories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Annotated copies of children's writing or art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Unannotated copies of children's writing or art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Observations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Checklists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Anecdotal records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Early Childhood Exemplars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Other (please indicate): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

[illegible]

**14. How USEFUL do you find the following kinds of assessment information for learners?**

	Not at all useful	Not very useful	Useful	Very useful	Unsure
1. Learning stories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Annotated copies of children's writing or art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Unannotated copies of children's writing or art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Checklists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Anecdotal records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Peer Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Observations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Individual Education Plans (IEPs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Other (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**15. Please list the tools, methods and approaches that you CURRENTLY use for assessing children in early childhood education:**

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**16. How do you learn to assess children most effectively?**

- ☐ Pre-service teacher education programme (teacher training)
- ☐ Professional development since qualifying as a teacher (In-service PD)
- ☐ Postgraduate study
- ☐ From colleagues on the job
- ☐ From professional reading
- ☐ None of the above, I do not feel that I know how to assess children effectively
- ☐ Other (please state): \_\_\_\_\_

**17. Who does the assessments of the learners in the ECE service? Please rate the involvement of the following people:**

	Never	Rarely	Sometimes	Usually
1. The Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The Head Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The Assistant Supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The Parent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. GSE or other specialist education provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Education Support Worker (Teacher Aide)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Other (please specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**18. Who do you think should lead the assessment of learners? Please rate the involvement of the following people:**

	Never	Rarely	Sometimes	Usually
1. The Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The Head Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The Assistant Supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The Parent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. GSE or other specialist education provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Education Support Worker (Teacher Aide)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Other (please specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**19. When you assess a learner, the main SIX ways you document the information is through:** *(Please rank from 1 to 6, 1 having the most value)*

- \_\_\_\_\_ Annotated copies of children's writing or art
- \_\_\_\_\_ Unannotated copies of children's writing or art
- \_\_\_\_\_ Photos
- \_\_\_\_\_ Standardised templates
- \_\_\_\_\_ Checklists
- \_\_\_\_\_ Reports to parents
- \_\_\_\_\_ Individual Education Plan
- \_\_\_\_\_ Notebook/communication books
- \_\_\_\_\_ Verbally (e.g., meetings or phone calls)
- \_\_\_\_\_ Other *(please explain)*: \_\_\_\_\_

**20. How often do you assess learners for each of the following:**

	Annually	Monthly	Weekly	Daily	Never
1. Seeking funding purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Teaching purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Learning purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Providing information to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. When planning a programme for a child	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**21. Are the data from the assessment of children being incorporated into centre-wide assessment data for any of the following reasons?**

	Yes	No
1. To evaluate the success of the centre's curriculum and teaching programmes	<input type="checkbox"/>	<input type="checkbox"/>
2. To inform strategic planning and centre self-review	<input type="checkbox"/>	<input type="checkbox"/>
3. To improve the achievement of individual learners and groups	<input type="checkbox"/>	<input type="checkbox"/>

**22. If yes, please explain how:**

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**23. Please add any comments about your experiences, or questions you have, about the assessment of children in early childhood education.**

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**Questionnaire:**  
**For all Pre-service ECE Teacher Education Providers**

**PROGRAMME DETAILS**

1. Duration of programme: \_\_\_\_\_
2. Number of weeks of practicum within the whole programme: \_\_\_\_\_

**SECTION ONE – PURPOSE OF ASSESSMENT**

3. In general the programme educates the student teachers to assess when they:

	Mainly	Sometimes	Never
1. Don't know what to do to meet the learner's needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Don't know what the learner knows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Don't agree with the specialist assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are applying for resources or funding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Want information for the parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Want to help learners with their next step learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Don't agree with the parents' views	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Want to know what standard/level the learner has achieved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Want to know how the learner compares with other learners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Want to know what the learners' strengths and weaknesses are	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Want to know how to adapt their teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Other ( <i>please specify</i> ): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**4. What level of confidence does the programme aim at instilling in the student teachers in their ability to assess children in early childhood education for the following purposes:**

	Very confident	Confident	Not very confident	Not confident at all
1. Accessing resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Accessing funding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Knowing the learner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Preparation for an Individualised Education Programme (IEP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Day-to-day learning and teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Identifying the learners' strengths and interests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Identifying the learners' learning needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Identifying teaching opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Providing feedback/discussion with parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Providing feedback to staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**5. After qualifying, do early childhood teachers need further specialist training in order to be able to work with learners with special education needs in the following aspects of ECE?**

	Yes	No	Sometimes
1. Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SECTION TWO – THE ASSESSMENT APPROACH

6. Please indicate if the programme encourages teachers to **USE** the following methods for assessing children in early childhood education. If you **DO NOT** encourage the method, please indicate why not. You may tick several boxes if more than one statement applies.

	METHOD IS USED					METHOD IS NOT USED				
	To assess what the learner has learned	To report (e.g., to parents, agencies)	To assess IEP progress	To plan next teaching steps	To identify learning strengths and difficulties	Have not heard of it	Do not provide training in the use of it	The level of the assessment tool is not age-appropriate	The assessment tool is not the role of ECE teachers	The assessment tool is too time-consuming
1. Learning Stories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Annotated copies of children's writing or art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Unannotated copies of children's writing or art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Observations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Checklists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Anecdotal records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Early Childhood Exemplars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Other (please indicate): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Comments:**

**7. Please indicate if the programme encourages ECE teachers to carry out the following methods for assessing children in early childhood education. If NOT, please indicate why not. You may tick several boxes if more than one statement applies.**

[illegible]

**8. How USEFUL are the following kinds of assessment information for teachers, parents and children in early childhood education?**

	Not at all useful	Not very useful	Useful	Very useful	Unsure
1. Learning stories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Annotated copies of children's writing or art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Unannotated copies of children's writing or art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Checklists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Anecdotal records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Peer Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Observations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Individual Education Plans (IEPs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Other (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**9. Please list the assessment tools, tests or approaches that the programme encourages ECE teachers to use for assessing children in early childhood education:**

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**10. How do teachers learn to assess children most effectively?**

- ☐ Pre-service teacher education programme (teacher training)
- ☐ Professional development since qualifying as a teacher (In-service PD)
- ☐ Postgraduate study
- ☐ From colleagues on the job
- ☐ From professional reading
- ☐ None of the above, teachers should not be responsible for assessment
- ☐ Other (please state): \_\_\_\_\_

**11. Who should conduct the assessment of the children in early childhood education? Please rate the involvement of the following people:**

	Never	Rarely	Sometimes	Usually
1. The Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The Head Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The Assistant Supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The Parent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. GSE or other specialist education provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Education Support Worker (Teacher Aide)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Other (please specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**12. Who should lead the assessment of learners in a centre? Please rate the involvement of the following people:**

	Never	Rarely	Sometimes	Usually
1. The Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The Head Teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The Assistant Supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The Parent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. GSE or other specialist education provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Education Support Worker (Teacher Aide)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Other (please specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**13. When qualified ECE teachers assess a learner, the main SIX ways they should document the information is through:** (*Please rank from 1 to 6, 1 having the most value*)

- \_\_\_\_\_ Annotated copies of children's writing or art
- \_\_\_\_\_ Unannotated copies of children's writing or art
- \_\_\_\_\_ Photos
- \_\_\_\_\_ Standardised templates
- \_\_\_\_\_ Checklists
- \_\_\_\_\_ Reports to parents
- \_\_\_\_\_ Individual Education Plan
- \_\_\_\_\_ Notebook/communication books
- \_\_\_\_\_ Verbally (e.g., meetings or phone calls)
- \_\_\_\_\_ Other (*please explain*): \_\_\_\_\_

**14. How often should qualified ECE teachers assess learners for each of the following:**

	Annually	Monthly	Weekly	Daily	Never
1. Seeking funding purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Teaching purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Learning purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Providing information to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. When planning a programme for a child	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**15. Should the data from the assessment of learners be incorporated into centre-wide assessment data for any of the following reasons?**

	Yes	No
1. To evaluate the success of the centre's curriculum and teaching programmes	<input type="checkbox"/>	<input type="checkbox"/>
2. To inform strategic planning and centre self-review	<input type="checkbox"/>	<input type="checkbox"/>
3. To improve the achievement of individual students and groups	<input type="checkbox"/>	<input type="checkbox"/>

**16. If yes, please explain how:**

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**17. Please add any comments about the programme in relation to qualified teachers and the assessment of children in early childhood education.**

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