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**Transforming early childhood teachers' professional learning and  
development: A study of research, provision, and potential.**

A thesis presented in partial fulfilment of the requirements for the degree of  
Doctor of Philosophy  
at Massey University, Manawatū, Aotearoa New Zealand.

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## **Abstract**

Effective professional learning and development (PLD) is recognised as a key mechanism to strengthen teachers' knowledge and pedagogical practice and improve the quality of education. However, PLD is not always effective for its intended purpose. Effectiveness depends on the match between the PLD approach, the participating teachers, and the desired outcomes. Although it is important to have a range of approaches to PLD, it is also important to be aware that different approaches will serve different purposes. In recent years, coaching has been increasingly evidenced as a PLD approach that supports teachers to develop knowledge and effectively implement new pedagogical practices. Yet, coaching is under-utilised and under-researched in the Aotearoa New Zealand early childhood education sector. The multiphase study in this thesis with publications investigated PLD in Aotearoa New Zealand early childhood education settings, with a focus on coaching as a component of the PLD. The research included a further focus on pedagogy to foster toddlers' social-emotional learning. There were three successive research phases, designed to investigate: 1) early childhood education PLD research literature; 2) the PLD provision that early childhood teachers have received in recent years; and 3) a PLD coaching intervention to support early childhood teachers in their implementation of teaching practices to foster toddlers' social-emotional learning.

The first phase of the investigation was a study of PLD research. Preferred Reporting Items for Systematic Review and Meta-analyses (PRISMA) protocols were used to guide a systematic literature review of PLD research in the Aotearoa New Zealand early childhood education field. Fifty-six studies were reviewed with the intention of identifying key characteristics of the research, including how or whether coaching had been studied. The results identified Aotearoa New Zealand ECE PLD research as predominantly qualitative and descriptive, characterised by practitioner-researcher partnerships and models of PLD based on collaborative inquiry or action research. Overall, there was limited attention paid to how PLD interventions were implemented, including the

strategies that facilitators used to support teachers' professional learning. There was limited attention to coaching. Within the studies that reported using coaching as a PLD component, there were multifarious coaching definitions and descriptions. Results of the systematic literature review suggest coaching is under-researched and possibly misunderstood in Aotearoa New Zealand early childhood education. The first research phase has identified a need for a stronger and more intentional focus on a range of PLD interventions and research, including who is involved, what content is covered, and how interventions are delivered.

The second research phase was a study of teachers' PLD experiences. A nationwide survey was completed by 345 early childhood teachers who answered questions about their recent PLD experiences. A key finding was that isolated workshops predominated as a PLD model. Many teachers also engaged in reflective discussions with PLD facilitators, however, facilitation strategies that are associated with coaching, such as observation and feedback, were not common. Overall, the survey's findings indicate there is limited emphasis on PLD models that are designed to support teachers in their implementation of new pedagogical practices. The second research phase has identified a need to support teachers' and leaders' access to evidence-informed PLD that promotes shifts in teaching practice and fosters positive learning outcomes for children.

The third research phase was a study of coaching as a component of PLD. Practice-based coaching protocols were adapted for use in an Aotearoa New Zealand early childhood education setting, and a PLD intervention was developed. The PLD intervention combined practice-based coaching with workshops, with the intention of supporting a teaching team's implementation of teaching practices to foster toddlers' social-emotional learning. The relationship between the coaching and the implementation of teaching practices was analysed using single-subject multiple-baseline methods. The single-subject experiment demonstrated a functional relation between the PLD intervention and teachers' implementation of the social-emotional teaching practices. Results suggest that some teaching practices were maintained 9 weeks after the intervention, despite staff changes. The participating teachers were interviewed to seek their perspectives of the PLD and

coaching. Teachers reported that coaching with a focus on social-emotional teaching was a positive experience that improved their teaching which, in turn, improved toddlers' social-emotional skills. The third research phase has foregrounded the potential of coaching to support and strengthen early childhood teaching. This phase has also identified pathways for further research into, and application of, coaching in the Aotearoa New Zealand early childhood sector.

The findings from this thesis with publications challenge current approaches to PLD, emphasising the need for a more coherent and informed approach. The unique professional learning needs of toddler teachers and the importance of PLD that effectively supports social-emotional teaching are highlighted throughout the thesis. Coaching is affirmed as a PLD approach to promote shifts in teaching, enabling teachers to implement new pedagogical practices. Numerous recommendations are made for further PLD research, provision, and potential for maximising positive outcomes. These recommendations include the development of a shared PLD definition and conceptual framework to support rigorous PLD research and application in Aotearoa New Zealand, and to support teachers and leaders to select and engage in PLD experiences that meet their needs. There is an identified need for further research that investigates how, why, and under what conditions PLD works. The thesis advocates for greater attention to evidence-informed and coaching-driven PLD. The research and recommendations within this thesis have been developed to advance and strengthen PLD systems and programmes in Aotearoa New Zealand early childhood education.

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## Glossary

**Aotearoa New Zealand.** Within the thesis, Aotearoa New Zealand is referred to as New Zealand and Aotearoa New Zealand. Both names are commonly used in this country.

**Certificated teacher.** As described on the Teaching Council website being certificated refers to fitness to teach, including having satisfactory recent teaching experience and having engaged in professional development (<https://teachingcouncil.nz/>).

**Hapū.** A hapū is a kinship group, consisting of a number of families sharing a common ancestor.

**Infants, toddlers, and young children.** Based on the New Zealand early childhood curriculum's description of three broad, overlapping age ranges, the age range of infants is from birth to 18 months, toddlers from 1- to 3-years, and young children from 2 ½- to 6-years (Ministry of Education, 2017).

**Iwi.** An iwi is an extended kinship group, larger than a hapū.

**Kaiako.** Kaiako means teacher.

**Kaupapa.** Kaupapa can be defined as a topic, plan, purpose, theme, or matter for discussion. In this thesis, the word kaupapa is used as an adjective to describe research with a Māori purpose and philosophy; e.g., kaupapa Māori research. Kaupapa Māori research draws from Māori world views and knowledge to address Māori aspirations (Bishop & Berryman, 2009).

**Ko te taha o tōku pāpā.** Ko te taha o tōku pāpā translates as on my father's side. It is traditional to introduce oneself by describing kinship ties, on the side of the father and mother.

**Ko te taha o tōku māmā.** Ko te taha o tōku māmā translates as on my mother's side.

**Marae.** A marae is technically the area surrounding a meeting house but is often thought of as the meeting house or whareniui. A marae is a place to meet and gather, where formal greetings and discussions take place.

**Mokopuna.** Mokopuna can be translated as child or children.

**Pasifika and Pacific Islands People.** The terms Pasifika and Pacific Islands People refer to the diverse people from the South Pasific Islands, including Polynesia, Micronesia and Melanesia, and to people who identify with the Pacific Islands.

**Professional development and Professional learning and development.** The terms professional development (PD), professional learning and development (PLD) and professional learning are used to refer to in-service teachers' professional training and learning. Professional learning and development is most commonly used within the thesis. Professional development is used when describing or discussing research literature that has used that term. All terms refer to in-service teachers' training and learning experiences that are designed to support and strengthen teachers' knowledge, dispositions, and/or skills.

**Qualified teacher.** A qualified early childhood teacher will have a qualification from an approved initial teacher education provider or, in the case of a teacher with an overseas qualification, will have met the New Zealand Teaching Council's satisfactorily trained to teach requirements (<https://teachingcouncil.nz/>).

**Registered teacher.** In New Zealand, a registered teacher has met the New Zealand Teaching Council's requirements recognising fitness to teach (<https://teachingcouncil.nz/>).

**Te reo Māori.** Te reo means the language, thus, te reo Māori is the Māori language.

**Talanoa.** Talanoa means to talk and is used to convey a way of speaking with love, warmth, humour and respect. Talanoa is particularly relevant as a way for teachers and families to speak with each other (Lemanu, 2014).

**Tihei mauri ora! Sneeze the breath of life!** In Māori tradition, every speech has an opening that clears a space for the words that are to come. In this thesis, the words, tihei mauri ora are used to open the researcher's introduction and the thesis.

**Tuakana-teina.** Tuakana-teina is a relationship that can be understood as one child helping another, such as a more expert or experienced child helping and guiding a child who needs support.

**Waka.** Simply translated, a waka is a canoe. Māori voyagers came to Aotearoa New Zealand in large sailing waka (Barclay-Kerr, 2006).

**Whānau.** Whānau refers to family, including extended family and sometimes friends or colleagues who are members of a group.

## Chapter 1. Introduction

### 1.1 Chapter Introduction

Chapter 1 begins by introducing the researcher and the research. The research is a multiphase investigation of teachers' professional learning and development in Aotearoa New Zealand early childhood education (ECE). Following an introduction to the research, a narrative literature review provides a comprehensive discussion of relevant literature, with emphasis on the Aotearoa New Zealand ECE context. From there the research questions are posed and ethical considerations described. Chapter 1 concludes with an outline of the structure of this thesis with publications.

### 1.2 Introducing the Researcher

This introduction is in the form of a pepeha, a structured introduction that describes kinship connections. A pepeha is generally spoken in Māori language. The following pepeha combines English and Māori.

Tihei mauri ora! Sneeze the breath of life!

Ko te taha o tōku pāpā—on my father's side, the Beers came from Wiltshire, England. George and Tryphena Beer sailed from England on the *Commodore Perry* to Australia, in 1859. By the mid 1860's George Beer, his family, and many of his siblings from Wiltshire had moved to New Zealand to join the Otago gold rush. A descendant of the Beers, my father, like my mum, was a born and bred Southlander. Mum and Dad met at a dance in Invercargill and were married in 1950.

Ko te taha o tōku māmā—on my mother's side, my Māori ancestors came to New Zealand in the waka called Tākitimu. The Tākitimu landed in Aotearoa New Zealand around 1360. It is said that several landings were made on the North Island's east coast before the captain, Tamatea Arikinui, gave the captaincy to Tahu Potiki, who took the Tākitimu to the South Island. Years later, Pakinui, a descendant of Tahu Potiki, married William Harpur. Family history says that William Harpur came to New Zealand aboard a whaler, in the early 1840s. William was the son of Joseph Harpur, an Irishman who had been deported to Australia. William and Pakinui Harpur lived mostly in the Waimate area.

They are Mum's ancestors. Nō reira, Tākitimu is the waka, Aoraki the mountain, Waitaki the river, and Kai Tahu is the iwi. My hapū is Hui Rapa and Puketeraki is my marae. O nāianeī, e noho ana au ki Waikato. I currently live in the Waikato. Ko Linda Rose Clarke ahau.

### **1.3 Introducing the Research**

The research presented in this thesis with publications is an investigation of early childhood teachers' professional learning and development (PLD), in Aotearoa New Zealand. Within this thesis, PLD refers to in-service teachers' facilitated training and learning experiences. A relevant definition of PLD is of facilitated learning experiences that enable "kaiako [teachers] and leaders to strengthen their capabilities throughout their career, and in response to emerging needs within a system that learns" (Ministry of Education, n.d.-a, Professional Learning and Development Opportunities section, para. 2). The National Professional Development Center on Inclusion's (NPDCI) definition is also relevant to this thesis. The NPDCI defines PLD as "facilitated teaching and learning experiences that are transactional and designed to support the acquisition of professional knowledge, skills, and dispositions as well as the application of this knowledge in practice" (2008, p. 3). Notably, the NPDCI's definition recognises that PLD is not only about learning and gaining knowledge, but also involves transferring the knowledge to teaching practice.

Early childhood education (ECE) refers to the system that provides education and care for infants, toddlers, and young children. In Aotearoa New Zealand this system includes a range of ECE services, many of which provide all-day education and care and typically enrol children from 0 to 6 years old (Education Counts, 2021). In most Aotearoa New Zealand ECE services, at least 50% of the adults who care for and educate children must have a recognised teaching qualification and be certificated as a teacher (Ministry of Education, n.d.-b). There is an expectation that certificated teachers will engage in ongoing PLD, and apply their professional learning to improve practice (Education Council, 2017).

A multiphase study was designed with the aim of investigating PLD in this Aotearoa New Zealand ECE context. There were three successive phases, as follows:

Phase 1. An investigation of Aotearoa New Zealand ECE PLD research literature

Phase 2. An investigation of the PLD that Aotearoa New Zealand early childhood teachers have received in recent years

Phase 3. An investigation of a PLD coaching intervention to support ECE teachers in their use of teaching practices to foster toddlers' social-emotional learning

Teachers' PLD was selected as a research focus because of the importance of providing PLD that is effective in strengthening teaching (Institute of Medicine and National Research Council, 2015; Mitchell & Cubey, 2003; Timperley et al., 2007). Aotearoa New Zealand's current systems of PLD could be described as insufficient to provide effective PLD to all ECE teachers (Cherrington, 2017; Cherrington & Wansbrough, 2010). These PLD systems have, in fact, been described by Cherrington (2017) as: insufficient to meet the needs of a diverse sector; challenged "in terms of ensuring equitable access to high quality PLD" (p. 57), and delivered in an environment that is under-resourced and under pressure, and to teachers who may not be critical consumers of PLD. Aotearoa New Zealand's Ministry of Education has acknowledged the need for a managed, coherent system of PLD through objective 3.6 in the recently released *Early Learning Action Plan 2019-2029*, which states:

The Ministry will introduce a planned and coherent national programme of PLD to support the design and implementation of local curriculum within the framework of *Te Whāriki*. All PLD will include a focus on identity, language and culture and the inclusion of children with disabilities or additional learning needs. This programme of PLD will reference *Tātaiako: Cultural competencies for Teachers of Māori Learners* and *Tapasā: Cultural Competencies Framework for Teachers of Pacific learners* [sic].

A national programme of PLD will also be designed to grow the leadership capability of teachers, kaiako and educators in leadership roles. The content of this will be informed by research evidence about effective leadership and the Teaching Council's *Leadership Strategy for the Teaching Profession and Educational Leadership Capability Framework* (2018).



The Ministry will review its current PLD design and delivery, funding and uptake with the sector. The review will inform the design of locally delivered PLD that is responsive to the aspirations of mana whenua and Pacific communities, and support equitable access across services. (Ministry of Education, 2019a, pp. 25–26).

A planned and coherent approach to PLD is vital if issues of access and equity are to be addressed. If PLD is to meet the needs of a diverse sector and foster positive outcomes for children, it will also be vital to deliver and facilitate PLD that is consistently effective in improving teaching (Institute of Medicine and National Research Council, 2015). Developing a sound understanding of current Aotearoa New Zealand PLD research and provision, and investigating the potential to improve PLD, is critically important if the Ministry's objectives are to lead to a PLD programme that is planned, coherent *and effective for purpose*. Therefore, this multiphase investigation of Aotearoa New Zealand ECE PLD is an important and timely study of PLD provision, research, and potential for transformation.

In this multiphase investigation, a focus on coaching is important because of limited research and application of coaching in Aotearoa New Zealand ECE. This limited attention to coaching at the ECE level is surprising given the demonstrated success of coaching interventions in New Zealand secondary schools, where a nationally-developed coaching programme has been shown to promote profound change in teaching practice (cf. Bishop et al., 2009; Bishop et al., 2014). Moreover, a wealth of international research evidences coaching as effective in strengthening teaching practice (cf. Brunsek et al., 2020; Egert et al., 2018; Elek & Page, 2019; Kraft et al., 2018). This range of national and international research provides compelling reasons for investigations of coaching in Aotearoa New Zealand ECE.

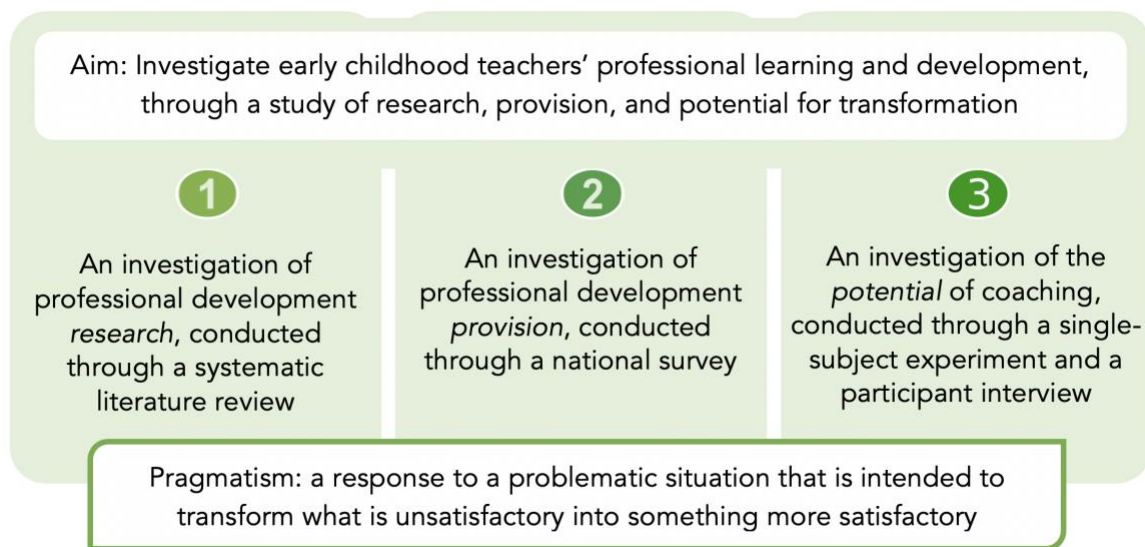
The investigation within this thesis has a further emphasis on PLD to support teachers in fostering toddlers' (aged 1 to 3 years) social-emotional learning. Social-emotional learning is increasingly recognised as a critical aspect of development that provides a foundation for all learning and wellbeing, and sets a trajectory for lifelong outcomes (Center on the Developing Child, 2004,

2008; Goodman et al., 2015). Toddler teachers have a significant role and responsibility to foster toddlers’ social-emotional learning (Dalli et al., 2011). Moreover, there is growing recognition of the specialised nature of toddler pedagogy, the need for PLD to support quality teaching in this area, and the need for research evidence to inform quality PLD provision for toddler teachers (Aspden et al., 2021; Dalli et al., 2011; White et al., 2016).

The overarching aim of the research within this thesis—to investigate ECE PLD through a study of research, provision, and potential for transformation— is underpinned by a philosophical position of pragmatism. Pragmatism “requires detection of a socially situated problem and adequate action to address the problem” (Kaushik & Walsh, 2019, p. 8). Thus, a pragmatic inquiry is a response to problematic situations, with a view to transform what is unsatisfactory into something more satisfactory (Simpson & den Hond, 2021). Figure 1.1 shows how pragmatic inquiry relates to the research aim and the three phases of investigation.

**Figure 1.1**

*The Three Research Phases Related to the Overarching Research Aim*



The first of the three research phases was a systematic literature review, which was conducted to identify the characteristics of Aotearoa New Zealand ECE PLD research. Differing from a traditional narrative literature review, a systematic literature review is a piece of research in its own right (Efron & Ravid, 2019; Oakley, 2002). Systematic literature review methodologies are

guided by a priori designed protocols that support systematic and comprehensive literature searches and analyses, and include a research question, rationale, hypothesis and planned methods of the review (Moher et al., 2015). In this thesis, Preferred Reporting Items for Systematic Review and Meta-analyses (PRISMA) protocols (Moher et al., 2015; Shamseer et al., 2015) were used to guide the review. Fifty-six PLD studies, spanning 18 years of research, were analysed to determine key characteristics of the research. Results indicated the predominantly descriptive body of research is characterised by practitioner-researcher partnerships, explorations of PLD as forms of collaborative inquiry, and limited attention to how PLD interventions were facilitated. As the first phase of this investigation, the systematic literature review provides an original and important perspective of Aotearoa New Zealand ECE PLD research. A key implication arising from this phase of the investigation is an identified need for PLD research that has a strong and intentional focus on PLD interventions, including who was involved, what was involved, and how the intervention was delivered.

The second phase of this investigation was a nationwide survey of early childhood teachers, conducted to explore teachers' experiences of PLD. The survey was designed to garner an overall description of ECE teachers' PLD experiences, including who engaged in PLD, what topics were covered, and how the PLD was delivered. In Aotearoa New Zealand, many PLD programmes that are provided to teachers are not publicly reported or evaluated, making it challenging to understand provision of PLD without asking teachers. Therefore, surveying teachers was important in understanding current PLD provision. The survey was distributed to ECE services throughout Aotearoa New Zealand. The responses of 345 early childhood teachers were analysed. The survey results contribute to a clearer understanding of the current PLD provision and teachers' experiences, including PLD topics, delivery, and facilitation. Key findings were that workshops predominated as a PLD model and, although many teachers had also engaged in reflective discussions with a PLD facilitator, facilitation strategies that are associated with coaching, such as observation and feedback, were not common. Implications arising from this phase of the investigation include the

need for a coherent approach to ECE PLD, and attention to evidence-informed PLD models and approaches that can shift teaching practices and promote positive outcomes for children. Being evidence-informed means considering multiple forms of evidence, including academic research and practitioner and community knowledge, and utilising evidence with integrity and effective adaption to achieve positive outcomes for teachers, children, and families (cf. Brown, 2018; Davies, 2012; MacFarlane & MacFarlane, 2013).

In phase three of the investigation, single-subject research was used to investigate a PLD and coaching intervention. Single-subject research methods are quantitative, involve single or small numbers of participants, and can be used to identify the effects of specific interventions through measurement of a dependent variable and controlled manipulation of an independent variable (Kennedy, 2005; Price et al., 2015; Salkind, 2010). Typically, single-subject research involves: a) clearly measuring and establishing the consistency of a pre-intervention behaviour; b) establishing that the behaviour changed after an intervention; c) establishing that the clearly measured change was likely to be the result of the intervention and not another variable (Salkind, 2010).

There were three key steps within phase three: 1) intervention development, which included development of PLD protocols and development of an observation tool; 2) intervention implementation, which involved conducting a PLD intervention and investigating its effects using a single-subject research design ; and 3) intervention follow-up, in which the participating teaching team, comprising two toddler teachers, was interviewed to seek the teachers' views of the PLD intervention. The PLD intervention combined workshops with coaching, with the intention of helping a team of toddler teachers implement effective social-emotional teaching practices. Throughout the PLD intervention, single-subject multiple-baseline methods (Gast & Ledford, 2010) were used to analyse the relationship between the dependent variable (i.e., the social-emotional teaching practices) and the independent variable (i.e., the PLD intervention). Results of the single-subject experiment indicated that the PLD intervention strengthened the teaching team's social-emotional

teaching practices. In line with these single-subject results, the teachers also reported that the PLD intervention improved their social-emotional teaching.

#### **1.4 Pragmatism**

As part of planning and undertaking research, it is important that researchers examine their assumptions and beliefs, including beliefs about the nature of knowledge, of learning and communication (Kaushik & Walsh, 2019), thus identifying a philosophical position. The philosophical position taken throughout this research investigation was pragmatism.

Pragmatism is largely connected with the work of Charles Pierce, William James, and John Dewey (Kaushik & Walsh, 2019; Simpson & den Hond, 2021). As a philosophical movement with its roots in 19<sup>th</sup> century America, pragmatism rejected the current thinking of the time in favour of a more practical consideration of philosophical ideas (Simpson & den Hond, 2021). As Choo (2016) explains, a key tenet of pragmatism is that reality is not fixed or absolutely certain; rather pragmatism accepts that there are multiple meanings and multiple ways of knowing that are constructed through human experience. For example, in exploring the nature of knowledge from a pragmatic perspective, key considerations may include how knowledge would be useful to achieve the desired purpose (or what do we know and need to know?) and how knowledge is supported or evidenced by events (or how does our inquiry or experience make this true?). Thus, in pragmatism, knowledge is constructed, shaped, and used with the purpose of managing the dynamics of life and finding solutions (Kaushik & Walsh, 2019). This solution-focused process can occur through inquiries aimed at understanding existing situations with intentions to improve. As Simpson and den Hond (2021) state:

The Pragmatist agenda is fundamentally concerned with the practical knowing that is called for when ambiguous, indeterminate or problematic situations arise, when established habits and old ways of thinking and acting are no longer efficacious, and these situations need to be transformed into something more satisfactory. (p. 6).

A key tenet of pragmatism, obvious in Simpson and den Hond's statement, is that of meliorism, a belief that improvement can be achieved through human effort (Simpson & den Hond, 2021). Another tenet is a rejection of dualism. Dualism refers to rigid dichotomies, such as theory versus practice, or qualitative versus quantitative (Simpson & den Hond, 2021). In rejecting the idea of dualism, pragmatists believe that there are multiple ways to inquire, and to shape and use knowledge with an intent to find solutions. Dewey described pragmatic inquiry as a process that transforms "a problematic or indeterminate *situation* to a non-problematic or determinate one" (Choo, 2016, p. 48). Thus a pragmatic inquiry can involve identifying a problematic situation and identifying and applying the research tools that will be most useful in investigating, addressing, and transforming the situation (Kaushik & Walsh, 2019).

The situation that has shaped the multiphase investigation within this thesis is the current system of PLD, which must be advanced if it is to effectively meet the needs of the diverse Aotearoa New Zealand ECE sector (see Ministry of Education, 2019a). Pragmatism provides an ideal positioning from which to better understand the existing PLD situation with intentions to improve, through an investigation of ECE PLD research, provision, and potential for transformation.

### **1.5 Narrative Literature Review and Historical Context**

In this section, a narrative literature review sets the scene for the research and provides a historical context of PLD in Aotearoa New Zealand ECE. A key purpose of this section is to complement the short literature reviews within the published chapters of the thesis. With a focus on Aotearoa New Zealand ECE, a comprehensive and historical background of PLD is provided, establishing the relationship between this thesis and the wider context of PLD and ECE knowledge. Key issues and trends associated with PLD are foregrounded.

The section begins with a description of ECE in Aotearoa New Zealand, followed by a short history of PLD in this context. A description of NPDCI's (2008) professional development conceptual framework—which supports consideration of *who* is participating in PLD, *what* they are learning about, and *how* PLD is delivered and facilitated—leads to a review of PLD research and approaches,

with an Aotearoa New Zealand focus. International and national coaching research is reviewed, followed by a description of practice-based coaching (Snyder et al., 2015). Practice-based coaching is an evidence-based coaching model, which was adapted for use in the third phase of this investigation. Following the description of practice-based coaching, the terms *evidence-based* and *evidence-informed* are discussed, with an explanation of how these terms have been conceptualised within this thesis. The final section of the literature review relates to a secondary focus of the thesis: social-emotional teaching for toddlers in Aotearoa New Zealand ECE.

### **1.5.1 The Context: A Unified and Diverse Early Childhood Education Sector**

In Aotearoa New Zealand, ECE services are regulated by the Ministry of Education under a system that is unified at policy level but diverse in terms of philosophy and practice (McLachlan, 2011). There are two main ECE service types: teacher-led and parent-led. In parent-led services, parents, family or caregivers educate and care for their children. Parent-led services include services that must be licensed by the Ministry of Education as well as playgroups, which may or may not be licensed (Ministry of Education, n.d.-c).

Licensed teacher-led services include kindergartens, education and care services, home-based services and correspondence school playgroups. Most are all-day education and care services that enrol children from 0 to 6 years old (Education Counts, 2019). Some services have a mixed age structure, with infants, toddlers and young children learning together in the same space, and some have separate rooms based on age-groups. Currently, in teacher-led services, at least 50% of the adults who care for and educate children must have a teaching qualification and be certificated as a teacher (Education Counts, 2021). This means that many ECE services have a mix of qualified and unqualified teaching staff. For qualified and certificated ECE teachers, PLD is recognised as a key pathway to strengthen teaching capabilities; for example through Teaching Council expectations that teachers will engage in PLD and apply their learning to practice, and through the Ministry of Education's *Early Learning Action Plan 2019-2029* (2019a) objective of a nationwide planned approach to PLD. However, recognising PLD's potential to strengthen teaching practice is one thing;

realising that potential is another. A short history of PLD in Aotearoa New Zealand ECE suggests that what is hoped will be achieved through PLD may be far loftier than the outcomes that are actually achieved.

### **1.5.2 A Short History of PLD in the Aotearoa New Zealand Early Childhood Education Sector**

Over 45 years ago, at a symposium of the New Zealand Council for Educational Research (NZCER), Marie Bell (Bell et al., 1974) shared her views on preschool teachers' initial and ongoing training. The political backdrop was *The Report of the Committee of Inquiry into Pre-Kindergarten Education* (Hill Report; Hill, 1971). At the time, much discussion was focused on initial teacher training and advocacy for childcare staff to receive training opportunities in line with those offered to kindergarten teachers. In her 1974 NZCER address, Bell advocated for initial and in-service teacher training that would help teachers authentically engage with communities, parents, and families, especially families whose backgrounds differed from those of the teachers. Training should enable preschool teachers to relate "warmly and creatively to a variety of people" (p. 5), and promote teachers' knowledge of languages and cultures. Teacher training was also necessary to promote teachers' development of self- and emotional-awareness, supporting abilities to explore and share feelings. Through in-service training, teachers should keep up with changing knowledge of child development and be able to articulate pedagogical knowledge and the value of play. Furthermore, training should provide opportunities to challenge teachers' beliefs and values. Bell also recognised the importance of initial and ongoing teacher training that would enable teachers to put their knowledge into practice: "Well educated teachers of parents and children may have the knowledge that can prevent mental ill health, crime, and poverty of life. Better training might enable them to use this knowledge" (Bell et al., 1974, p. 10).

Moves towards the types of professional learning opportunities for which Bell (Bell et al., 1974) advocated were to remain predominantly aspirational for some time. It was not until 1987 that Aotearoa New Zealand's Ministry of Education introduced initial early childhood teacher training in the form of a 3 year teaching diploma. Initial teacher training had previously been of a 2



year duration for kindergarten teachers and 1 year for early childhood education and care teachers (Bushouse, 2008). Towards the end of the 1990s, teachers' in-service training (or PLD), was increasingly recognised as a lever for quality teaching and improved outcomes for children, as well as systemic reforms (cf. Fullan & Mascal, 2000; Ministry of Education, 1997; OECD, 1998; Thornton, 2003). In Aotearoa New Zealand, debates about what constituted effective PLD were emerging and there were arguments for specific PLD requirements for teachers, as well as more systematic PLD evaluations with a stronger focus on whether changes in teaching practice occurred as a result of PLD (Thornton, 2003).

Throughout the early 2000s, PLD initiatives for Aotearoa New Zealand ECE teachers can be traced alongside a drive for quality. With aims to improve quality of and access to ECE, the Ministry of Education's (2002) strategic plan, *Pathways to the Future: Ngā Huarahi Arataki*, included a unique professional development initiative in the form of the Centres of Innovation programme. Centres of Innovation featured teaching teams' engagement in facilitated and collaborative action research, with intentions of strengthening innovative practice and disseminating findings throughout the ECE community (Meade, 2011). Centres of Innovation embraced a concept described by Hedges (2010) as "blurred boundaries" where researchers involve themselves as facilitators of teachers' learning and inquiries (blurring the boundaries between facilitating PLD and researching), and where teachers become actively involved in the research processes (blurring the boundaries between teaching and researching). The identity of "practitioner-researcher" (Farrell et al., 2016) and the notion of action research as a form of PLD were clearly embraced through Centres of Innovation. It was recognised that partnering teaching and research can potentially benefit both: supported by research partners, teachers are positioned as agents for investigation and change within their own ECE services, generating knowledge that is useful for teaching and for the wider ECE and research communities (cf. Hedges, 2007). In 2009, funding cuts saw the Centres of Innovation programme discontinued.

The 2000s also saw a continued focus on what constituted effective PLD. Mitchell and Cubey's (2003) *Professional Development in Early Childhood Settings: Best Evidence Synthesis Iteration* (BES) was a landmark publication that identified characteristics of effective PLD. The BES drew from a large body of New Zealand and international research, and suggested quality ECE PLD:

- incorporates participants' aspirations, skills, and knowledge
- provides information about theory, content, topic, and practice
- involves participants in investigating pedagogy within their own settings
- involves participants in analysing data from their own settings
- supports critical reflection, helping participants challenge their assumptions
- supports educational practice that is inclusive of diverse children and whānau
- helps participants to change practice, beliefs, understanding, and/or attitudes
- helps participants increase awareness of their own thinking, actions, and influence

Many of Mitchell and Cubey's recommendations for future research were concerned with how to design PLD to meet the needs of diverse participants. Specifically, research evidence was needed to inform PLD in a range of settings, including Pacific Island and Māori immersion settings, to inform PLD for qualified and unqualified teachers, and to inform PLD for teachers working with infants, toddlers, and children with additional needs.

Shortly after the publication of Mitchell and Cubey's (2003) BES, an evaluation of Ministry-funded PLD provision for the 2004-2005 period found that early childhood teachers' overall satisfaction with PLD was high. However, a number of future directions for improving PLD were identified, including ensuring PLD was adaptive to meet ECE services' needs, improving reporting and evaluation systems, and addressing the need to provide PLD that would promote inclusive practice and teachers' cultural competencies (Cherrington & Wansbrough, 2007). Around the same time, a cross sector BES (Timperley et al., 2007) was released, providing a synthesis of international and Aotearoa New Zealand PLD research. Timperley et al. (2007) identified further characteristics of effective PLD, including: extended opportunities to learn in a variety of ways; opportunities to

challenge problematic discourses; involvement in collaborative learning that included a focus on assessing how teaching affected student learning; active and effective leadership; and the engagement of an expert facilitator who facilitated change in teachers' beliefs and practice. It is important to note that many of these factors were seen as typical in successful PLD interventions but not necessarily sufficient. Effective combinations of factors and effective, flexible application in a range of contexts appeared to be key to success. A notable issue identified by Timperley et al. (2007) was poor reporting of PLD research, specifically limited descriptions of PLD interventions and providers, and limited evidence of teachers' learning or student outcomes. Timperley et al. also noted the need for information regarding PLD that promotes better outcomes for Māori and Pacific Island students, and research that is situated in Māori and Pasifika education services.

From 2008, the Ministry-funded PLD provided to early childhood teachers was influenced by a "significant policy shift from raising quality in all centres to a more targeted focus on raising achievement in specific children, communities and ethnic groups" (McLachlan, 2011, p. 42). This shift included the 2010 introduction of Strengthening Early Learning Opportunities (SELO). SELO involves a set of Ministry-funded PLD programmes targeted towards services that have the greatest chance of meeting the goal of increased participation of Māori and Pasifika children and children from low socio-economic areas (Ministry of Education, n.d.-d). An evaluation of Ministry of Education-funded PLD for the 2010-2013 period, including SELO programmes, was published in 2013 (Cherrington et al., 2013). The evaluation covered PLD programmes that were provided to diverse ECE services across topic areas that included literacy, numeracy, social competence, transitions, education and care for children under two, and leadership. Within these areas, there was content related to: identity, language, and culture; engaging parents in their children's learning; and developing sustainable communities of practice. It was a very complex evaluation. The evaluation identified shifts in teaching practice across the range of topic areas, although PLD was more successful in some areas than others and, overall, there was limited evidence of PLD improving outcomes for children. Cherrington et al. noted that many teachers needed to address foundational

practices, such as developing skills in reflective practice and in assessing children’s learning, before PLD could effectively address direct teaching practice and outcomes for children. Moreover, Cherrington et al. warned that continued attention was necessary to ensure PLD supported and promoted change in teaching practice—a warning that suggested a need for a greater focus on learning outcomes for children, and more rigorous evidence of change in teaching practice leading to improved outcomes for children. There were further recommendations for PLD to meet the needs of kaupapa Māori and Pacific Island services. Nevertheless, most ECE services were satisfied or very satisfied with their PLD opportunities and experiences across a range of areas.

In 2011, the Incredible Years Teacher programme, developed in the United States (Webster-Stratton, 2012), was funded by the Ministry of Education for Aotearoa New Zealand teachers. Incredible Years Teacher is intended to help teachers foster children’s (aged 3 to 8 years) social-emotional competence and learning. The programme combines monthly workshops with onsite visits that involve discussion, observation of teaching and the provision of feedback. An evaluation of Incredible Years Teacher in Aotearoa New Zealand reported overall positive results but identified some fidelity issues related to the onsite visits, with variability in how teachers were supported between workshops (Wylie & Felgate, 2016a). Another issue was that many teachers were not able to sustain the more complex teaching practices, with declines in implementation of teaching techniques most apparent for early childhood teachers (Wylie & Felgate, 2016a). Currently, in 2021, Incredible Years Teacher remains available for New Zealand early childhood and school teachers.

By 2017, the value placed on collaboration, inquiry, and improving outcomes for all children was evident through New Zealand Teaching Council expectations (Education Council, 2017). These expectations are made clear through the teaching standard of using “inquiry, collaborative problem-solving and professional learning to improve professional capability to impact on the learning and achievement of all learners” (Education Council, 2017, p. 18). Collaborative inquiry is described on a Te Kete Ipurangi professional learning web-page as teams who work together to question; to develop theories, plans, and action steps; and to gather evidence to evaluate the impact of their

actions (Ministry of Education, n.d.-e). Taking a somewhat broader approach to inquiry, *Te Whāriki* says teachers should use “critical inquiry” to “shape their practice” (Ministry of Education, 2017, p. 59) in ways that involve being thoughtful, reflective, attentive and that include a commitment to professional development. In *Te Whāriki*, “shared inquiry” is outlined as a collaborative approach to curriculum planning through which teachers question their knowledge of learning and development, their knowledge of children, and what they need to do to support children’s learning (Ministry of Education, 2017). For teachers in Aotearoa New Zealand, processes of collaborative inquiry are not necessarily supported by a facilitator. Yet, skilled facilitation can be key to the success of collaborative inquiries, particularly through the provision of new perspectives and by challenging teachers’ existing beliefs and practices in ways that promote positive change and support children’s learning (Timperley et al., 2007).

In 2019, the final round of applications for another Ministry-funded initiative, the Teacher-led Innovation Fund was made available to ECE services (Ministry of Education, 2018a). Applications had previously been limited to the school sector. The Teacher-led Innovation Fund has aimed to improve outcomes for learners, through the following:

- enhancing links between research and teaching practice
- funding groups of teachers to use methods of collaborative inquiry to understand an issue of current practice, to try new practices and continue the inquiry cycle to monitor impact, and adapt practice (and engaging in this process for around 12 to 24 months)
- supporting teachers to develop innovative teaching practice and to share what works

Thus, like the Centres of Innovation action research project, the Teacher-led Innovation Fund has positioned teachers as researchers with an aim to promote innovation in teaching. Teacher-led Innovation Fund projects were completed in partnership with an external expert, described as a “Critical Friend to the project team” (Ministry of Education, 2018a, p. 4). As explained in the Teacher-led Innovation Fund guide, a critical friend is expected to have the skills to help with the

rigour of the investigation, and to support with project design, implementation, data collection and analysis, and reporting (Ministry of Education, 2018a).

An evaluation of the Teacher-led Innovation Fund (Sinnema et al., 2018) identified numerous positive outcomes, especially in terms of teacher satisfaction. This evaluation occurred before ECE services were included, so it relates to school-based projects. Some teachers said it was “the best professional learning they had ever been involved in” (Sinnema et al., 2018, p. 11). The evaluation also noted problematic patterns, notably with data confidence and capability, which often resulted in unclear links between data and outcomes. Sinnema et al. (2018) indicated that throughout the Teacher-led Innovation Fund inquiries there was “almost exclusive emphasis on success” (p. 12) but often with no evidence to support claims of success. Overall, a key issue was the lack of evidence to show that the processes of inquiry that were the core of the professional development resulted in improved outcomes for children. The Teacher-led Innovation Fund guidelines (Ministry of Education, 2018a) suggest there is a Ministry expectation that connecting research and practice, using collaborative inquiry and developing innovative practice will result in improved outcomes for children. Yet the Teacher-led Innovation Fund and Centres of Innovation projects have not provided rigorous evidence that this has been the case (see Gibbs & Poskitt, 2009; Sinnema et al., 2018).

The Ministry of Education’s next steps to support and strengthen ECE have been outlined in the recently released *Early Learning Action Plan 2019-2029* (Ministry of Education, 2019a), which aims to ensure all ECE teachers and leaders are well qualified, diverse, culturally competent and valued. Within the plan, the Ministry says it will “review its current PLD design and delivery, funding and uptake” (Ministry of Education, 2019a, p. 26) to inform PLD that helps teachers to support identity, language, culture, and inclusion. Another aim is to provide PLD that is adaptive and flexible to meet the needs of diverse early learning services.

From Bell’s aspirations to the *Early Learning Action Plan 2019-2029* and across Aotearoa New Zealand’s “shifting landscape of policies and practice” (Cherrington, 2017, p. 53), there are common threads relating to what PLD should accomplish. These threads include promoting teachers’

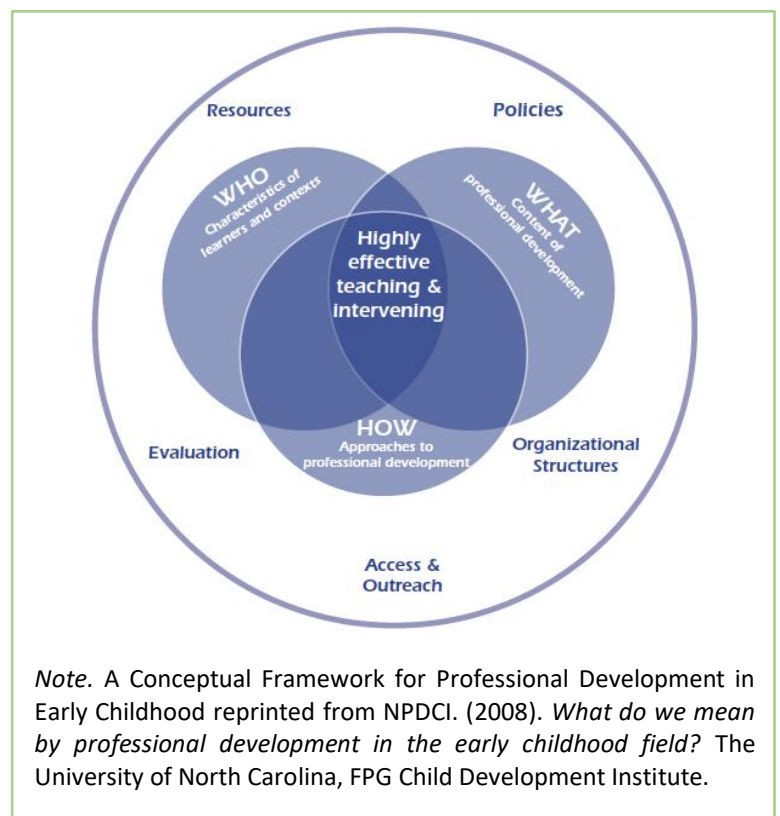
cultural competence, challenging deficit assumptions and beliefs, and enabling teachers to apply their knowledge to practice in ways that will impact positively on all children. Interestingly though, recent expectations and objectives are not much different from those expressed over 50 years ago—so why aren't we there yet? In addressing that enduring question, it must be recognised that there are multiple factors that might impact on the quality of teaching, including structural conditions and environments and teachers' compensation and professional status (Institute of Medicine and National Research Council, 2015). Similarly, there are multiple contextual factors that impact on the overall outcomes of PLD programmes, including access, outreach, and resources (NPDCI, 2008). Nevertheless, identifying how PLD interventions improve teaching practice and promote positive outcomes for children remains key in strengthening the professional capabilities of the ECE workforce.

### 1.5.3 PLD That Fits the Purpose

Recognising the need for a shared definition of professional development and acknowledging the diversity of the early childhood workforce and professional development provision, the National Professional Development Center on Inclusion (NPDCI) has developed a professional development definition and conceptual framework to support the understanding, enactment, and evaluation of professional development in ECE contexts (Buysse, 2009; NPDCI, 2008). NPDCI defines

**Figure 1.2**

*NPDCI's Conceptual Framework for Professional Development in Early Childhood*



professional development as “facilitated teaching and learning experiences that are transactional and designed to support the acquisition of professional knowledge, skills, and dispositions as well as the application of this knowledge in practice” (2008, p. 3). As shown in Figure 1.2, the NPDCI professional development conceptual framework includes: *who*—the characteristics of the participants/learners, including the contexts and communities in which they work; *what*—the content and intended outcomes of the professional development; and *how*—the organisation, approach, delivery method and facilitation of learning experiences. As expressed in the NPDCI’s framework, *who*, *what* and *how* fit within a wider context of policies, resources, structural conditions, access, outreach, and professional development evaluations, all of which should be considered when designing, planning, or providing professional development. The NPDCI’s framework was developed in American contexts. It is, nonetheless, highly relevant for Aotearoa New Zealand’s early childhood sector, where professional learning opportunities must be applied in diverse contexts and for a wide range of teachers who have many different PLD priorities (see Cherrington & Shuker, 2012).

At the time the NPDCI conceptual framework was under development, there was increasing consensus internationally that professional development approaches were effective when focused on specific professional practices or skills, and aligned with the curriculum materials used by practitioners (NPDCI, 2008). There was general agreement that critical features of effective professional development included intensive and sustained learning opportunities with guidance and feedback on specific practice, and the use of methods such as coaching and facilitated collaboration (NPDCI, 2008). Facilitated collaboration refers to teachers’ collaborative inquiries that are supported by an outside expert or external facilitator.

As the brief history of PLD has identified, collaborative inquiries are a well-accepted approach to PLD in Aotearoa New Zealand ECE. There may, however, be a range of understandings around what successful professional collaboration involves. In an evaluation of Ministry-funded PLD programmes, Cherrington et al. (2013) noted mixed terminology and a lack of definitions in PLD



providers' references to various types of professional communities. Cherrington et al. advocated for greater clarity in references to communities of practice, learning communities and professional learning communities, since all these groups have different key features, different ways of functioning, and different expectations of members. Cherrington et al. strongly recommended that PLD providers make use of the research evidence on professional learning communities (see Stoll, 2011; Stoll et al., 2006; Thornton & Cherrington, 2018) because this would help to establish "expectations that teachers will engage in critical interrogation and reflection of their practice in an on-going and collaborative manner" (Cherrington et al., 2013, p. 177).

Studies of professional learning communities in Aotearoa New Zealand ECE contexts are fairly recent, although there has been a range of research internationally and in school contexts (Thornton & Cherrington, 2014, 2018). A professional learning community is described by the New Zealand Ministry of Education (n.d.-f) as a network of individuals or organisations that provides opportunities for sharing of ideas, knowledge, and resources, and that enables critical discussions. Stoll et al. (2006) outline features of a professional learning community as: shared values and vision; collective responsibility; reflective professional inquiry and dialogue; collaboration; and promotion of group and individual learning. The intent of a professional learning community is to engage collaboratively in critical inquiry and professional learning, through processes that are embedded in educational culture and focused on promoting improved outcomes for students (Stoll et al., 2006). Thornton and Cherrington's (2014, 2018) studies of professional learning communities in Aotearoa New Zealand ECE have highlighted leadership and commitment to a shared focus as factors that influence successful professional learning communities. Thornton and Cherrington's research also affirms the important influence of a facilitator who can offer different perspectives, challenge teachers' thinking, prompt change, promote reflection and critical discussion, and provide resources and support. Factors that constrain sustainability and effectiveness of professional learning communities in Aotearoa New Zealand ECE include staff turnover and lack of effective leadership (Thornton & Cherrington, 2014, 2018). The existing research of professional learning communities in

New Zealand ECE suggests that *how* early childhood teachers engage in collaborative inquiry and other forms of professional learning is worthy of further attention. Attention to how teachers' collaborative learning is supported is especially important because, without key features such as a skilled facilitator, collaborative learning may reinforce deficit thinking or simply support the status quo (see Timperley et al., 2007). Another important consideration is that a professional group needs time to develop and function as a professional learning community, and at the mature levels necessary to promote positive change (Stoll, 2011; Stoll et al., 2006).

It is not surprising that collaborative PLD approaches are valued and encouraged in Aotearoa New Zealand where early childhood teachers typically work in teams and in a collective environment. However, it remains important to ensure that inquiries actually promote improved teaching and positive outcomes for children, and that the role of an outside expert is carefully considered. In international research, coaching (involving an expert who supports teachers to achieve goals and improve teaching) has been shown to be effective in shifting teaching practice and improving outcomes for children (Kraft et al., 2018). Yet, coaching has received limited attention as a PLD approach in Aotearoa New Zealand ECE.

Based on a definition from Joyce and Showers (1982), coaching can be described as a (not necessarily linear) process of gaining knowledge or learning new teaching skills (e.g., a presentation or workshop), observing demonstrations of the skills in action (e.g., a video exemplar), practising (e.g., role modelling), and applying the skills in teaching practice, supported by a coach's observation-based feedback. Joyce and Showers' definition of coaching recognises that teaching is a complex task. Thus, to apply a new skill or teaching approach, teachers will need to understand the skill well, which includes practising it in no-pressure contexts. Furthermore, effectively transferring the skill to teaching practice is difficult: knowing something is one thing, applying it in a real-life situation is another, and teachers will often need to adapt a newly learned skill to suit the dynamics of the learning environment. Therefore, mastery will require time, practise, and support. As described by Joyce and Showers, coaching is a form of support that involves observation of teachers

as they apply newly learned teaching skills to practice, followed by feedback and discussion, and usually repeated over time until mastery is achieved.

Joyce and Showers' (1982) seminal work on coaching has pioneered a body of research that has examined teacher-coaching in schools, early intervention, and ECE settings. Over time, various models of coaching have been developed. There are also varying definitions and interpretations of coaching within the research literature. More recently, coaching research has been examined through meta-analyses and systematic reviews, including through meta-studies from Kraft et al. (2018), Elek and Page (2019), and Brunsek et al. (2020).

Kraft et al. (2018) analysed 60 causal studies to examine the effects of teacher coaching programmes on instruction/teaching practice and student outcomes in pre-school and school contexts. In comparing their estimates of the effects of coaching with effects of a range of other factors and interventions, Kraft et al. described effects of coaching on student performance as larger than effects of initial teacher education, merit-based pay, data-driven instruction and other (non-coaching) forms of professional development. Coaching was found to be larger, or similar, in effect size to the effects of teaching experience (novice or experienced teachers), and comparable in effect size to comprehensive school reform, large reductions in class size and high dosage student tutoring. Kraft et al.'s meta-analysis also sought to identify which features of coaching were associated with larger effects, although analyses in this area were exploratory because of limited access to original data. The exploratory analyses suggested larger effects occurred when coaching was paired with group training, such as a collaborative workshop to build content or pedagogical knowledge prior to coaching supports, and when coaching was paired with teaching resources and materials. Many of the studies reviewed by Kraft et al. did not provide full or consistent information about coaching dose (duration, frequency, and intensity). With a caution that their analysis of dosage was limited by lack of original data, Kraft et al. report there was no evidence to indicate higher doses of coaching were necessarily better, suggesting that quality and focus of coaching may be more important than hours of coaching.

Elek and Page (2019) systematically reviewed 53 coaching studies to determine which features of coaching were effective in improving early childhood teachers' practice. Key features of coaching, reviewed by Elek and Page, included dose, location, the individualised nature of coaching, relationship building, observation, feedback, goal setting, and reflection. Throughout the reviewed studies, dose of coaching varied greatly and was not always reported fully, however, what appeared to be important was that the dose was sufficient to match the complexity of the content and the learning needs of the teachers. In line with Kraft et al.'s findings, this suggests that there is no correct coaching dose per se, but that the appropriate duration, frequency, and intensity of coaching depend on what is being coached, how and for whom. Elek and Page's review also suggested that an in-situ format (i.e., the coaching was conducted in teachers' education settings) was important; in contrast, Kraft et al. (2018) found no significant difference between effects for virtual or in-person coaching models. Individualisation of coaching, which was noted as a critical feature by Elek and Page, involved tailoring coaching to meet the needs of the teacher-coachee and providing individualised feedback on teaching practice. Relationship building between coach and coachee is also an aspect of an individualised approach but, in the studies reviewed by Elek and Page, relationship building was rarely reported as an intentional coaching component. Possibly this indicates that relationship building was taken for granted. When the development of a relationship between coach and teacher-coachee was described, trust, rapport, respect, non-judgement and supporting the teacher-coachees' choices were noted as important to success.

Across the studies reviewed by Elek and Page (2019), observation, feedback, reflection, and goal setting were common components of successful coaching. Observation varied in terms of duration and whether it occurred remotely or in-person. Observation was usually followed by feedback. Most commonly the coach talked with the teacher-coachee in person about the observed teaching practice. In some studies feedback was written, provided live through bug-in-ear technology, or provided through a combination of methods. Reflection and reflective conversations were sometimes connected to feedback, with teacher-coachees reflecting on a range of aspects of

their teaching, including practice, knowledge, attitudes, and beliefs. Goal setting usually involved the coach supporting the teacher-coachee to set goals to improve teaching in line with the intervention. In some studies goal setting was teacher-led and in other studies goals were determined by the coach. In summary, Elek and Page identified observation, feedback, reflection, and goal setting as common and important components of successful coaching. Coaching appeared to be most effective when it took place (wholly or partly) in the teacher-coachee's teaching context, with dosage matched to the complexity of content and the teacher-coachee's learning needs.

Another significant systematic literature review and meta-analysis, from Brunsek et al. (2020) examined 64 studies of professional development programmes, and, where possible, reviewed mode/delivery of professional development, dose, study design and author effects as well as the associations between professional development content and outcomes. Brunsek et al.'s analysis found more significant positive associations between professional development content area and child outcomes when content aligned with the measured outcomes. While this finding seems unsurprising, it is important because it signifies the value of designing, developing, and providing teachers with professional development that matches the desired child outcomes. Brunsek et al. also found that different professional development content areas were associated with more significant positive outcomes. For example, children's pre-literacy skills were the focus of many studies included in the review, and the studies with preliteracy content areas showed the largest effect sizes. Reasons for this may be that preliteracy is an area that is easier to teach or assess, or pre-literacy topic areas may be better understood in terms of professional development design and provision. Professional development programmes that involved children's expressive vocabulary and social and emotional learning were also more likely to have stronger positive associations with children's outcomes. In line with other meta-studies (Elek & Page, 2019; Kraft et al., 2018), Brunsek et al.'s findings suggest that the appropriate duration, frequency, and intensity of professional development (i.e., the dosage) is dependent on the complexity of skills that teachers seek to learn, with more intense or sustained professional development likely to be necessary if teachers are

seeking to learn more comprehensive or complex teaching skills, and shorter-term programmes likely to be enough to improve specific or simpler teaching skills.

Taken together, these meta-studies affirm the value of coaching as a key feature of successful professional development. Overall, professional development programmes that included coaching components were more likely to result in positive outcomes for teachers and students than programmes that did not include coaching. There is an established consensus that coaching works, with ongoing research continuing to strengthen understanding of critical features of coaching.

#### ***1.5.4 Coaching in Aotearoa New Zealand***

Te Kotahitanga was a large scale research and development project that took place from 2001 to 2009, with the aim of improving educational outcomes for Māori students in Aotearoa New Zealand secondary schools (Bishop et al., 2014). Te Kotahitanga was, and remains, critically important because of the disparities between Pākehā and Māori that lead to educational underachievement for Māori students (Controller and Auditor-General, 2016). The design and implementation of Te Kotahitanga followed a kaupapa Māori approach. Kaupapa Māori research draws on Māori world views to address Māori aspirations (Bishop & Berryman, 2009). This indigenous approach to both research and professional learning is “motivated by the desire for Māori to know more about themselves, to control the way Māori view the world and themselves, and how the world views and interacts with them” (Tamati et al., 2008, p. 30). As Tamati et al. (2008) explain, kaupapa Māori research is done by Māori from a Māori perspective.

The Te Kotahitanga project took place over several phases. The first phase included the development of a framework representing a “culturally responsive pedagogy of relations” (Bishop et al., 2009, p. 736). A culturally responsive pedagogy of relations is defined by Bishop et al. (2009) as teaching and learning that is relational, interactive, and connected through a common vision, and where power is shared, and culture counts. Te Kotahitanga’s framework, the Effective Teaching Profile, was informed by a range of evidence, including information that came from consultation with Māori students, and with families, teachers and principals (Bishop & Berryman, 2009). Te

Kotahitanga PLD was based on the Effective Teaching Profile and followed a pattern of an induction workshop, a series of classroom observations, feedback meetings, collaborative discussion and problem solving meetings, and shadow coaching (Bishop et al., 2009).

Te Kotahitanga PLD was highly “structured, supported and monitored” (Alton-Lee, 2015, p. 34). PLD facilitation protocols were manualised in a series of modules with clear and detailed guidelines and resources. Key components of the Te Kotahitanga coaching cycle are detailed in *Module 5, Feedback, Co-construction, and Shadow Coaching* (n.d.). As explained in Module 5, observations of teaching practice were conducted using a project-developed observation tool, aligned with the Effective Teaching Profile. A key purpose of the observations was to identify teachers’ pedagogical strategies and the impact these had on Māori students. Feedback meetings followed the observations. During these meetings the facilitator provided specific feedback on what happened during the observation, highlighted the impact of specific interactions, and encouraged critical reflection about what might be done differently. Co-construction involved facilitated and collaborative meetings focused on student learning, data-informed discussions and decision making, sharing of expertise and critical discussion and reflection, in which assumptions and practice were challenged. In these ways, co-construction was based on features of effective professional learning communities identified by Timperley et al. (2003a, 2003b). Co-construction meetings also emphasised Māori students’ achievements and provided an ongoing forum for teachers to reflect on their assumptions about Māori students. The final component of the PLD cycle was shadow coaching, which is described in Module 5 as an essential form of support intended to build teacher capacity. Shadow coaching could include providing support with lesson or resource planning; working with a teacher in an authentic setting, such as the classroom; modelling teaching practices; offering tips or prompts; and engaging in feedback and discussion.

Across multiple phases, Te Kotahitanga was progressively developed and implemented in 54 secondary schools (Alton-Lee, 2015). Alton-Lee’s (2015) evaluation of Te Kotahitanga phase five reported positive and dramatic outcomes for students. Alton-Lee found that, in Te Kotahitanga

schools, Māori students' academic achievement (as measured through national qualifications assessments) increased dramatically across multiple conditions. Furthermore, in Te Kotahitanga schools, Māori students stayed at school longer; most students reported that it felt good to be Māori in their school; and around 60% of Māori students reported that their teachers always, or mostly, knew how to support their learning. As a large scale kaupapa Māori research and development project, Te Kotahitanga incorporated features of effective collaborative learning and coaching into a culturally and contextually relevant PLD approach. The project was hugely successful in reducing disparities and raising educational achievement.

Another example of coaching in a New Zealand secondary school comes from De La Salle College. De La Salle College had 1,307 students enrolled at the time of the research. The De La Salle research exemplar is small-scale but provides an example of an initiative to utilise coaching as an "additional layer of targeted support" (Spee et al., 2016, p. 7). As an additional layer, coaching was used in conjunction with teacher appraisal, professional learning groups, professional development consultancy, and engagement in teaching as inquiry that focused on helping teachers examine the impact of their teaching on student outcomes. In the use of coaching, key PLD goals were to challenge teachers' deficit thinking and raise achievement for De La Salle students. Deficit thinking involves assigning blame to students, or their family or culture, for any difficulties experienced at school (Reed, 2020). De La Salle college engaged a coach in a full-time position, with the role of providing guidance to teachers and engaging in observation of teaching and follow-up support that included helping teachers reflect and set goals. The coach also provided data-informed feedback. While the coach's role was described as supportive and strengths based, it also involved creating an "intentional disturbance" (Spee et al., 2016, p. 10), which suggests that coaching was critically constructive. Overall benefits and outcomes of coaching at De La Salle, as reported by the school's students, teachers and management, included: students' improved engagement in learning; improved teacher-student relationships; teachers' greater confidence in their teaching abilities; and teachers' positive feelings of being acknowledged and affirmed.



Although coaching is not a common PLD approach in Aotearoa New Zealand ECE services, the Te Kotahitanga project and De La Salle's exemplar are examples of successful implementation of coaching in New Zealand secondary schools. Te Kotahitanga, in particular, provides strong evidence of success for the teachers and the students.

#### **1.5.5 Practice-Based Coaching**

With increasing recognition of the potential of coaching to support improvement in teaching and promote positive outcomes for children, numerous models of coaching have been developed and used in PLD interventions. Models of coaching are intended to specify the elements of coaching that are identified as important for the focus and context. One evidence-based model is practice-based coaching (Snyder et al., 2015). Practice-based coaching is a cyclical coaching process involving shared goals, action planning, focused observation, reflection, and feedback, within the context of collaborative coaching partnerships (Snyder et al., 2015). The term *practice-based* refers to the content or topic of the coaching. Unlike some coaching models which are designed to coach specific content skills, such as pre-literacy skills or physical movement skills, practice-based coaching can be used to coach effective teaching practices within practically any topic or content area, as long as a set of specific teaching practices is identified. For example, practice-based coaching could be used to foster play-based pedagogy or literacy or social-emotional pedagogy, based on the identification of specific practices in each area.

Practice-based coaching is an evidence-based model, with evidence of effectiveness demonstrated by numerous empirical studies that report improvement in teachers' implementation of teaching practices following practice-based coaching interventions (e.g., Conroy et al., 2014; Hemmeter & Conroy, 2012; Snyder et al., 2018; Snyder et al., 2015; Sutherland et al., 2018; Sutherland et al., 2015). There are various understandings of what it means to be evidence-based, thus, an explanation of how the terms *evidence-based* and *evidence-informed* are conceptualised within this thesis is provided, in the next section.

### **1.5.6 Evidence-Based and Evidence-Informed**

In Aotearoa New Zealand, evidence-based practice has been described as teaching practice that is informed by research evidence, teachers' knowledge and skills, and input from children and families (Bourke et al., 2005; MacFarlane & MacFarlane, 2013). There are, however, other understandings of what it means to be evidence-based. For example, evidence-based is sometimes associated exclusively with research evidence, or with specific types of research evidence (cf. Brown, 2018; Hedges, 2007; MacFarlane & MacFarlane, 2013; WHO/Europe, 2021). For this reason, the term *evidence-informed* has become more common, with *informed* emphasising that external research is not the only, nor the most valuable, form of evidence (Brown, 2018). Rather, multiple forms of evidence are required to support effective decision making at practice level, and at programme development and policy levels. At a policy level these multiple forms of evidence can include political and social culture, finance, and priorities (WHO/Europe, 2021). Practitioner expertise and external research are further forms of evidence (Brown, 2018). In principle, evidence-informed or evidence-based policy is about making well-informed decisions related to policy and programme development. Davies (2012) says an evidence-based policy approach:

helps policymakers make better decisions, and achieve better outcomes, by using existing evidence more effectively, and undertaking new research, evaluation and analysis where knowledge about effective policy initiatives and policy implementation is lacking. (p. 42).

Similarly, Brown's (2018) definition of evidence-informed policy is:

[a]n approach that helps people make well informed decisions about policies, programmes and projects by putting the best available evidence from research at the heart of policy development and implementation. (p. 3).

A commonality in these definitions is that evidence-informed policy is about supporting better decision making. Davies' (2012) definition emphasises the importance of using evidence effectively and generating evidence when needed, while Brown's (2018) emphasises the use of the best available evidence. Both definitions are relevant to this study. Also relevant is MacFarlane and

MacFarlane's (2013) model of evidence-based practice that explains what the "best available evidence" might look like in a culturally responsive Aotearoa New Zealand context.

MacFarlane and MacFarlane (2013) position evidence-based practice in the context of *Te Tiriti o Waitangi* and Te Ao Māori (Māori worldviews). In the Te Ao Māori space, evidence-based practice sits at the intersection of: participation and input from whānau; research that is "culturally grounded, relevant, authentic and realistic" (p. 73); and integrous practitioner knowledge and skill. In positioning these cornerstones within a Māori worldview, informed practice is guided by the Māori concepts of "*tika* (right, true, correct), *pono* (fair, just, honest) and *aroha* (care, compassion, love)" (MacFarlane & MacFarlane, 2013, p. 72). In Aotearoa New Zealand, all cornerstones of culturally responsive evidence-based practice are relevant not only to teaching practice, but also to research, policy, and programme development.

In this thesis, being evidence-informed means drawing on multiple forms of evidence, including research-evidence that is "culturally grounded, relevant, authentic and realistic" (MacFarlane & MacFarlane, 2013, p. 73), and using the evidence with integrity to achieve better outcomes.

### **1.5.7 Social-Emotional Learning**

The secondary focus of this multiphase investigation—supporting teachers to foster toddlers' social-emotional learning—is important for numerous reasons, including: the well-established value of social-emotional learning (cf. Fox et al., 2002; Goodman et al., 2015; Macfarlane et al., 2017); recent national initiatives to support ECE teachers in fostering children's social-emotional learning (Ministry of Education, 2019b); and the importance of providing PLD to toddler teachers, given that the care and education of toddlers is increasingly recognised as a specialised area of teaching (cf. Aspden et al., 2021). In the final sections of this introductory literature review, social-emotional learning is defined and discussed, and literature related to the significance of social-emotional learning and the teacher's role to support toddlers' social-emotional learning is reviewed.

**Understanding Social-Emotional Learning.** Social-emotional learning involves learning to understand and express emotions, develop an understanding of self and others, make friends, and build healthy relationships. The Collaborative for Academic, Social, and Emotional Learning (CASEL; n.d.) defines social-emotional learning as:

a process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions. (para. 1)

CASEL's definition positions social-emotional learning as a life-long process that is not only about acquiring social-emotional knowledge but applying social-emotional skills in ways that are healthy and responsible for self and others. CASEL's social-emotional framework (which is represented as a wheel) comprises five broad areas of social-emotional learning: self-awareness; self-management; social awareness; relationship skills; and responsible decision-making. The social-emotional learning areas within the CASEL wheel are broad and overlapping; each area represents a range of skills, knowledge, and attitudes that will look and be applied differently in different contexts, and for different people. Similarly to CASEL, Goodman et al. (2015) categorise social-emotional skills into broad areas of: self-perceptions and self-awareness; motivation; self-control and self-regulation; social skills; and resilience and coping.

Social-emotional frameworks, such as those proposed by CASEL (n.d.) and Goodman et al. (2015), are useful in understanding and describing social-emotional skills. It is important to understand, though, that social-emotional behaviours that are considered to be valuable are culturally, contextually and developmentally dependent (Saarni, 1999; Shonkoff & Phillips, 2000). This means that in different cultures or contexts some social-emotional skills or behaviours will hold a different value or be considered more appropriate than others. Furthermore, social-emotional learning is a developmental process, meaning that social-emotional learning and behaviours will change, often becoming increasingly sophisticated, as children grow and learn (Denham, 2018).

Denham provides an example of the development of social-awareness from preschool through to high school: a key social-awareness developmental task for preschoolers is to understand expressions of basic emotions, a slightly older child will be learning that people can hide their emotions, while a high school student may be learning that a person's feelings and reactions depend on their prior experiences and personality. Thus, social-awareness and all areas of social-emotional learning are consistently important for all ages, but age and development are highly relevant to success in these areas. Although toddlers' social-emotional learning will not be as sophisticated as older children's, it is equally if not more important. This is because, during toddlerhood, foundations are laid for success in later and increasingly complex learning tasks. Some of the key social-emotional developmental tasks of toddlerhood are outlined below, in the form of brief descriptions of what toddlers would typically be learning in each of CASEL's social-emotional areas.

The first two areas in the CASEL (n.d.) wheel, *self-awareness and self-management*, involve developing a sense of identity, feeling secure in a sense of self and a place amongst others. As toddlers develop awareness, autonomy and a sense of themselves as valued members of a group, they will be building confidence in their abilities and feelings of belonging in their family and community (Ministry of Education, 2017, 2019b). For toddlers, self-management is very closely connected to the abilities to understand their own, and others, emotions. Toddlers' emotions can be intense but, as they learn to understand and express their feelings, toddlers become better able to manage themselves and their learning (Center on the Developing Child, 2004; Thompson, 2009). Many of the skills associated with self-management, including self-regulatory skills, will not fully develop until later in life so, for toddlers, self-management will also involve learning to accept or seek help when they need it (Thompson, 2009).

CASEL's third area, *social-awareness*, includes understanding the perspectives of others and recognising social norms in diverse contexts. As they develop social-awareness, toddlers become increasingly interested in others and increasingly able to interact successfully with others (Gloeckler & La Paro, 2015; Ministry of Education, 2019b; Wittmer & Peterson, 2014). Toddlers' social-

awareness may begin with interest, perhaps simply watching others. As their social-awareness grows, toddlers will begin to interpret emotional expressions and social cues, which will support their emerging abilities to interact and make friends (Denham, 2018). Toddlers will be beginning to recognise and understand basic emotions such as sad, angry, and happy (Denham, 2018).

CASEL's area of *relationship skills* includes communication skills, and the skills to cooperate, collaborate, negotiate, and compromise. Relationship skills are complex and closely connected to language development, as well as toddlers' abilities to recognise, express and regulate emotions (Center on the Developing Child, 2004). Toddlers will be learning to initiate and maintain interactions and to follow social rules, such as turn-taking (Denham, 2018). Toddlers will also be developing abilities to engage in more difficult interactions, such as those that require cooperation, compromise or negotiation, but will often need support, practise, and time to do so (Gloeckler & La Paro, 2015; Gloeckler et al., 2014; Ministry of Education, 2019b).

CASEL's fifth area, *responsible decision making*, involves making reasoned and constructive choices. For toddlers, responsible decision making is likely to involve learning a range of strategies to regulate feelings and behaviours, including knowing how to seek help when needed (Thompson, 2009). Responsible decision making can also involve learning expectations and routines. Toddlers will often need support to understand and learn expectations and routines, including what is expected in different contexts (Ministry of Education, 2017, 2019b; Thompson, 2009).

Emotional development underpins or is closely connected with toddlers' learning in all the social-emotional areas described. The Center on the Developing Child (2004) define the core features of emotional development as the abilities to:

identify and understand one's own feelings, to accurately read and comprehend emotional states in others, to manage strong emotions and their expression in a constructive manner, to regulate one's own behavior, to develop empathy for others, and to establish and sustain relationships. (p. 1).

These core features of emotional development not only emphasise emotion skills but also the abilities to establish and sustain relationships, thus reflecting the strong connections between social and emotional development. Numerous authors have explained how emotional skills support toddlers' and young children's social-emotional development and learning (e.g., Center on the Developing Child, 2004, 2012; Denham et al., 2003; Sharp, 2011; Shonkoff & Phillips, 2000; Thompson, 2009). As children's emotional repertoires and knowledge expand, they can interact with others more successfully because they become better at interpreting the feelings or cues of others and better able to manage their own emotions and responses (Denham et al., 2003; Thompson, 2009). Increasing abilities to express emotions in ways that are context appropriate and healthy for self and others enable children to communicate what they are feeling, seek support, and better manage interactions and events. An increasing capacity to regulate emotions means that toddlers' feelings, which can be intense, are less likely to become uncontrollably intense or overwhelming (Shanker, 2016). As their emotional skills grow, toddlers may display increasing abilities to focus their attention, be able to change behaviours or intentions with greater ease, and may be able to delay gratification and seek help if needed (Rosanbalm & Murray, 2017). However, as Thompson (2009) explains, during toddlerhood the brain regions that are associated with self-control and regulation are still very immature, meaning that there will be times when toddlers simply cannot manage and regulate their feelings. This means that toddlers will need support to learn about their feelings, cope with emotional experiences, and manage their social interactions.

**The Importance of Social-Emotional Learning.** The importance of social-emotional skills is well-supported by research: in the short term, children with strong age-appropriate social-emotional skills are likely to experience academic success and greater acceptance by peers; and in the longer term, childhood social-emotional competence predicts many important later-life outcomes, including lifelong learning, health, socio-economic, relationship, and wellbeing outcomes (cf. CASEL, n.d.; Center on the Developing Child, 2004, 2012; Goodman et al., 2015). Goodman et al.'s (2015) comprehensive literature review and analysis of data from the British Cohort Study identified

associations between a range of childhood social-emotional skills and later-life outcomes. Goodman et al.'s literature review was of quantitative studies that examined associations between the children's social-emotional measures and later-life outcomes. The age range of children in the reviewed studies was from 0 to 16 years. Goodman et al. also used data from the British Cohort Study to analyse children's social-emotional skills, measured at age 10, and associations with outcomes at age 42. The overall findings led Goodman et al. to conclude: "substantial benefits are likely to be gained across people's lives if effective interventions can be found to enhance social and emotional skills in childhood" (2015, p. 12).

The substantial benefits of intervening early to support children's social-emotional learning are also highlighted through numerous working papers and reports from the Center on the Developing Child at Harvard University (Center on the Developing Child, 2004, 2012, 2017, 2020). The Center on the Developing Child describes the first few years of life as a time of rapid learning and development in which the brain develops adaptively in response to environments and experiences. In fact, all systems in the human body, including the brain, are interdependent and develop in relation to each other and the environment (Center on the Developing Child, 2020). Thus, the first few years in the human life span are a time when relationships, interactions, and experiences have a significant influence on development, and provide foundations for lifelong learning, health, and wellbeing. Specifically related to social-emotional learning, young children's social-emotional capabilities and experiences help to build brain structure, providing foundations that support self-regulatory and thinking skills, strengthen capacities for resilience, and support development of skills and behaviours that can promote later-life success and wellbeing (Center on the Developing Child, 2004, 2020).

In Aotearoa New Zealand, self-control has received attention as an area of learning that is important to promote through ECE (see Ministry of Education, 2019c). Self-control has been defined and measured in multifarious ways, with some definitions positioning self-control as a social-emotional competence and others as an executive function or broader thinking skill (Uziel, 2018).



There seems to be general agreement that self-control involves the abilities to “delay gratification, control impulses, and modulate emotional expression” (Moffitt et al., 2011, p. 2693). Shanker (2016) describes self-control as a subset of self-regulation but differentiates between the two, in that self-regulation involves “reducing the frequency and intensity of strong impulses” (para 1), whereas self-control involves resisting strong impulses. The development of self-control, beginning in early childhood and continuing through to adulthood, is not necessarily a stable process. Self-control behaviours change depending on what is developmentally appropriate and subject to changing circumstances, such as mood and motivation (Baumeister et al., 2007; Uziel, 2018).

Moffitt et al. (2011) used data from one of New Zealand’s large scale longitudinal studies, the Dunedin Multidisciplinary Health and Development Study (the Dunedin study), to examine associations between childhood self-control and later-life outcomes. The data came from around 1,000 children at ages of 3, 5, 7, 9 and 11 years. Measures of 3- and 5-year-old children’s self-control were observational and focused on lability (i.e., sudden mood changes), frustration, hostility, roughness, resistance, restlessness, impulsivity, attention, and persistence. Parent, teacher, and self-reports of aggression, hyperactivity, lack of persistence, inattention, and impulsivity were used as measures when children were 5, 7, 9, and 11 years old. Disentangling from factors of intelligence, social class, and adolescent mistakes or “snares”, Moffitt et al. found that childhood self-control was related to later-life health, finances and criminal offending, with more positive outcomes in these areas for children with higher measures of self-control. In restricting data to children aged 3 and 5, Moffitt et al. still found that better childhood self-control predicted more positive outcomes, although the effect sizes were smaller. These findings suggest that childhood self-control is beneficial. One question arising from the Dunedin study was whether, and how, self-control should be promoted through interventions. Moffitt et al. recommended a universal-population approach to supporting young children’s self-control, which means applying programmes that support all children’s self-control as opposed to targeting specific children. Moffitt et al. also recommended

further research to better understand the key components of self-control and how they are enhanced.

More recently, Morton et al. (2020) analysed data from the *Growing up in New Zealand Study* (<https://www.growingup.co.nz/>) with the aim of increasing understanding of young children's self-control. Morton et al. conceptualised self-control within the three broad domains of: delayed gratification; effortful control; and executive function. Based on behaviours associated with self-control within these domains, measures of self-control were created for children aged 9 months, 2 years and 4.5 years. Where possible, Morton et al. used data from observations, tests, and maternal reports to assess children's self-control. One of the key objectives of the research was to identify factors that promoted the development of self-control in early childhood. The findings suggested that factors that supported self-control development included parenting behaviours such as reading books to children, engaging in shared interactions and having screen time rules (Morton et al., 2020). In recommending how children's self-control could be promoted, Morton et al. suggested "universal population-based strategies to inform and support parents, families and professionals working with young children to optimise the development of self-control in pre-schoolers" (p. 45). Morton et al. also advocated for a relationship-based approach where self-regulatory skills are intentionally taught through a process that has been referred to as *co-regulation*. Rosanbalm and Murray (2017) explain that, with toddlers, co-regulation involves an adult using intentional teaching strategies, such as talking about emotions and needs, modelling the skill of waiting, providing a safe environment and providing comfort and reassurance when toddlers are upset.

A note of caution from Morton et al. (2020) is that high self-control or desiring more self-control may not necessarily predict better outcomes—it should not simply be assumed that more is better (see Uziel, 2018). Furthermore, when focusing on preschool children's self-control, an important consideration is that developmentally appropriate teaching practices are essential to effectively support learning. This is why Morton et al. advocate for relationship-based approaches of co-regulation to support young children's emerging self-control skills. It is especially important that

teachers' expectations are in line with the capabilities of toddlers, because the areas of toddlers' brains that are associated with self-regulatory skills are still very immature (Thompson, 2009). As well as having developmentally appropriate expectations, teachers can foster toddlers' social-emotional development and emerging self-regulation and management by: understanding the differences in individual toddlers' strengths and needs; providing structured routines; breaking large tasks into manageable steps; supporting toddlers with prompts and cues; and using relational teaching strategies consistent with co-regulation (Thompson, 2009).

**Resources to Support Social-Emotional Teaching in Aotearoa New Zealand ECE.** Aotearoa New Zealand early childhood teachers have access to a number of resources intended to guide social-emotional teaching and promote culturally responsive teaching. Many of these resources are in the format of books or booklets with associated online resources to support teachers (e.g., *He Māpuna te Tamaiti* [Ministry of Education 2019b]). In this section, the following resources are described: *Te Whāriki* (Ministry of Education, 2017); *He Māpuna te Tamaiti* (Ministry of Education, 2019b); *Tātaiako* (Ministry of Education & New Zealand Teaching Council, 2011), *Tapasā* (Ministry of Education, 2018b) and *Incredible Teachers* (Webster-Stratton, 2012). Although these resources are not necessarily specialised in terms of guiding teachers to foster toddlers' social-emotional learning, they are highly relevant in terms of social-emotional teaching. They are also relevant to PLD objectives in the Ministry of Education's *Early Learning Action Plan 2019-2029* (Ministry of Education, 2019a).

*Te Whāriki* (Ministry of Education, 2017) and *He Māpuna te Tamaiti* (Ministry of Education, 2019b) are two key resources that support teachers to foster children's social-emotional learning through relational and culturally responsive teaching, and in the contexts of routines, rituals, and play. Examples of teaching strategies to support toddlers' social-emotional learning, outlined within *Te Whāriki* and *He Māpuna te Tamaiti*, include: supporting toddlers to talk to each other; providing comfortable and predictable caregiving practices and routines; having consistent and realistic expectations and boundaries; helping toddlers to communicate their feelings and to manage

conflicts and frustrations; and having appropriate expectations about toddlers' abilities to cooperate, share, take turns, or wait for assistance. The importance of teacher–family relationships, intentional teaching and culturally responsive, bicultural practice is emphasised in both documents.

*He Māpuna te Tamaiti* (Ministry of Education, 2019b) describes bicultural practice as teaching practice that is reflective of a *Treaty of Waitangi*–based approach. The *Treaty of Waitangi* (*Te Tiriti o Waitangi*) is the founding document of Aotearoa New Zealand, signed by Māori and Crown representatives in 1840, and pledging a relationship based on partnership, protection and participation (Berryman et al., 2018). Berryman et al. (2018) couch the treaty's relational intent from a Māori perspective of *mana ōrite*, which means that each treaty partner is interdependent and has a responsibility to uphold the *mana* of the other (*mana* can be described as life-force and esteem). The Aotearoa New Zealand teaching standards (Education Council, 2017) state that teachers should demonstrate commitment to the *Tiriti o Waitangi* partnership by understanding the unique status of Māori in Aotearoa New Zealand, and acknowledging the histories, heritages, languages and cultures of the partners to *Te Tiriti o Waitangi*. Berryman et al. (2018) posit that authentic commitment to *Te Tiriti o Waitangi* partnerships and culturally responsive pedagogy requires strong understandings of teaching as an act that encompasses the “cultural, spiritual, and physical wellbeing of our Māori students as potential future leaders in our bicultural nation” (p. 9). For many teachers, being able to engage in culturally responsive pedagogy will require sustained participation in PLD that involves confronting embedded beliefs and ways of thinking, and changing teaching practice (Bishop et al., 2009; Bishop et al., 2014).

Culturally responsive and bicultural teaching are relevant in all aspects of teaching in Aotearoa New Zealand, including social-emotional teaching. Furthermore, social-emotional learning is an integral aspect of Māori pedagogical and philosophical approaches (Macfarlane et al., 2019; Macfarlane et al., 2017), as can be seen in the Tapa Whā model (Durie, 1984). Durie's (1984) Tapa Whā model positions social-emotional learning within the context of all learning and wellbeing. Tapa Whā is founded on the dimension of *whenua*, which can be described as a place of belonging and

security. From this foundation, four other dimensions provide the context for healthy development and wellbeing. These are: *whānau*, which includes family, colleagues, friends, and community; *tinana*, which refers to the body and physicality; *wairua*, which often involves spirituality, connections with the environment, or a connection with a higher power; and *hinengaro*, which encompasses the mind, heart, thoughts, and feelings. Thus, *Tapa Whā* reflects the connectedness of emotions, relationships and interactions, and a sense of place in the world and among others. All these dimensions are integral to processes of social-emotional learning and to teachers' cultural responsiveness.

Two key teaching resources, intended to support teachers' cultural responsiveness are *Tātaiako* (Ministry of Education & New Zealand Teaching Council, 2011) and *Tapasā* (Ministry of Education, 2018b). These are two documents that the Ministry has stated it will reference in the development of a planned and coherent national PLD programme (Ministry of Education, 2019a). *Tātaiako* guides teachers to engage with Māori students and their families. It provides a framework of cultural competencies relating to communication, professional practice, relationships, socio-cultural awareness, and values. Within the *Tātaiako* framework, there are numerous indicators of teaching behaviours or practices that are indicative of culturally responsive practice. Similarly, *Tapasā* is a resource to support culturally responsive pedagogy for Pasifika students. The *Tapasā* framework provides indicators of culturally responsive teaching within the areas of relationships; effective teaching for Pasifika learners; and identity, language, and culture. Given the importance of supporting children's identity, language, and culture through relational pedagogy, both frameworks are highly relevant to PLD that strengthens all areas of teaching, including social-emotional teaching. It should be noted, however, that while there are associated online resources to support the use of *Tapasā* and *Tātaiako*, the frameworks are not PLD interventions within themselves; they are approaches to teaching that could be fostered through effective PLD.

Another resource that has been developed to support culturally responsive teaching in New Zealand ECE services is *The Hikairo Schema: Culturally Responsive Teaching and Learning in Early*

*Childhood Education Services* (Macfarlane et al., 2019). *The Hikairo Schema* provides a framework for teaching that aligns with Māori pedagogical approaches and incorporates lists of teaching practices to support children's social-emotional competence and learning. Examples of some of the teaching practices that are outlined within *The Hikairo Schema* include: beginning the day and meal times with karakia (prayer); demonstrating care and respect when inviting children's participation in routines and activities; organising transitions and routines to support wellbeing and social-emotional learning; providing descriptive feedback to children; using pictures or displays to make learning visible; providing a range of cues for transitions; modelling prosocial behaviours; building authentic relationships with families; and connecting with the community. *The Hikairo Schema* is not a Ministry of Education-funded resource and, as such, may not be as well-known or as accessible to early childhood teachers as *He Māpuna te Tamaiti, Tātaiako*, and *Tapasā*, which are provided free of charge to ECE services.

Aotearoa New Zealand early childhood teachers also have access to the Incredible Years Teacher PLD programme (Webster-Stratton, 2012), which is funded by the Ministry of Education as part of the Positive Behaviour for Learning strategy (Wylie & Felgate, 2016a). As outlined earlier in this literature review, Incredible Years Teacher aims to support teachers to foster children's social-emotional competence and learning. The programme involves monthly workshops and some on-site support, over a 6 month time frame (Ministry of Education, n.d.-g). As a programme that has been developed in the United States, Incredible Years Teacher was chosen for use in Aotearoa New Zealand because its content, coherence, and structure were seen to be compatible with New Zealand education approaches, and because of positive international evaluations of Incredible Years Teacher (Wylie & Felgate, 2016a). In general, evaluations of Incredible Years Teacher in Aotearoa New Zealand have suggested the programme is culturally and contextually acceptable to New Zealand teachers, but there is scope for greater connection with Māori and Māori teaching approaches (Wylie & Felgate, 2016b). The New Zealand Incredible Years Teacher webpage includes links to Incredible Years resources that are written in the Māori language (Ministry of Education,

n.d.-g). It is important to note, however, that Māori language alone is not enough to foster the level of authentic cultural responsiveness that is key to supporting social-emotional learning for all children in Aotearoa New Zealand (see Macfarlane et al., 2017). As the Ministry of Education moves to develop a national PLD programme, it is timely to question whether culturally responsive Māori and Pasifika pedagogies can be genuinely embedded into an imported PLD intervention.

Incredible Years Teacher focuses on pedagogy for children in the age range of 3 to 8 years, however, the programme is accessed by a range of teachers, including toddler teachers (Wylie & Felgate, 2016a). Evaluations of the Incredible Years Teacher programme in Aotearoa New Zealand do not provide specific information about how effectively teachers' work with toddlers is supported, however, they do indicate that some teachers may find it challenging to use Incredible Years strategies with younger children, and that some teachers would like information about how to use the strategies with toddlers (Wylie & Felgate, 2016a). An identified need for more targeted support for toddler teachers would not be surprising, given that toddlers have quite different needs from older children, and thus require different pedagogical approaches (see Aspden et al., 2021; White et al., 2016). As Aspden et al. (2021) explain, a growing acknowledgment of infancy and toddlerhood as distinct periods in the human life span supports the provision of specialised education and care for these young children. Scaled down versions of programmes for older children will not serve toddlers nor their teachers well (Aspden et al., 2021). Thus, it is also timely to pay attention to the importance of specialised PLD for toddler teachers.

**Fostering Toddlers' Social-Emotional Learning in Aotearoa New Zealand.** Aotearoa New Zealand early childhood teachers have access to multiple resources to guide and support social-emotional teaching, including *Te Whāriki*, *He Māpuna te Tamaiti* and the Incredible Years Teacher programme. However, evidence suggests that many teachers need further support to effectively teach toddlers social-emotional skills. Indeed, several national evaluation reports indicate there is variable quality of pedagogy across Aotearoa New Zealand ECE services (Education Review Office, 2011, 2015, 2019). Some evaluations are positive. For example, an Education Review Office (2011)

evaluation of social-emotional teaching, which involved 310 ECE services, reported generally positive findings. The evaluation indicated that 45% of the services reviewed utilised teaching practices that were “highly effective in assisting children to develop social and emotional competence” (p. 1), with 38% seen to use mostly effective practices, 14% somewhat effective, and 3% ineffective. For the services with ineffective practice, difficulties arose when: teaching was inconsistent; teachers lacked understanding of their service’s procedures or expectations around positive guidance; teachers had a limited repertoire of positive behaviour strategies and/or lacked confidence in implementing strategies; there was a lack of stimulation in the learning environment; interactions were not sustained or meaningful; and when teachers were not attuned or responsive to the needs of infants and toddlers. Although the Education Review Office’s evaluation of social-emotional teaching is largely positive, there is cause for concern. First, while the percentage of services with ineffective practice appears minimal, the repercussions are not minimal. Poor practice equates to lack of protective factors and compounding negative outcomes, which often impact the most vulnerable children (Center on the Developing Child, 2008).

Another Education Review Office evaluation (2015), of infant and toddler services ( $n = 235$  services), also identified variable teaching quality across ECE services. The Education Review Office found that most teachers effectively supported infants’ and toddlers’ wellbeing, but did not effectively support other areas of learning, including communication. Only 12% of services were highly responsive in their practices to support infants’ and toddlers’ exploration and communication; 44% were somewhat responsive; 31% had limited responsiveness; and 13% were not responsive. This is of concern. Given the significance of infants’ and toddlers’ learning (Center on the Developing Child, 2008), the expectation must be for 100% of ECE services to be highly responsive to all the needs of infants and toddlers.

A third Education Review Office evaluation (2019), that examined the implementation of the updated early childhood curriculum framework, *Te Whāriki* (Ministry of Education, 2017), found that “most services were not well prepared to review and design a local curriculum based on priorities for



children's learning" (p. 5). This means that many services were struggling to put the updated early childhood curriculum guidelines into practice in ways that were meaningful for the children and families they worked with. These challenges with curriculum implementation have repercussions for all areas of children's learning, including social-emotional learning.

Other research indicates that there may be specific areas of teaching in which Aotearoa New Zealand teachers need more support. For example, findings from the Growing up in New Zealand study (Morton et al., 2017) indicate that teaching young children the skills to recognise, understand and begin to regulate emotions may be a particularly important focus for New Zealand early childhood teachers. Only 1 child in 5 of the (around 6,000) 4-year-old children in the Growing up in New Zealand study could describe a range of emotions beyond happy or sad. This suggests that many 4-year-old children have limited knowledge of a range of emotions. Yet, emotion knowledge and skills can be taught to toddlers during everyday routines, rituals and play in ECE environments (Ministry of Education, 2019b). The Education Review Office evaluations (2011, 2015, 2019), along with findings from the Growing up in New Zealand study (Morton et al., 2017), suggest that many teachers need effective PLD support to be able to facilitate a range of positive learning outcomes for toddlers.

Taken together, there is a wealth of evidence that points to the need for evidence-informed PLD to support Aotearoa New Zealand ECE teachers in their role of fostering toddlers' social-emotional learning. Numerous resources are available, many of which describe teaching approaches and practices that are designed to be culturally responsive and relevant in Aotearoa New Zealand ECE. A missing component appears to be PLD opportunities that enable teachers to implement effective teaching practices. Therefore, to find out more about the current PLD situation and with a view to improve, this thesis aims to investigate Aotearoa New Zealand ECE PLD, through a study of research, provision, and potential for transformation, *and* with a focus on pedagogy to foster toddlers' social-emotional learning.

## 1.6 Introducing the Research Questions and Design

In this section the multiphase investigation is outlined and the research questions posed. A discussion of ethical considerations follows, in the next section.

To address the aim of investigating ECE PLD, this research was conducted across three successive phases to investigate: 1) the characteristics of Aotearoa New Zealand ECE PLD research; 2) the PLD that Aotearoa New Zealand early childhood teachers have received in recent years; and 3) the efficacy of a PLD coaching intervention to support toddler teachers in their use of social-emotional teaching practices. There were four research questions:

1. What are the characteristics of *PLD research* in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?
2. What are the characteristics of *PLD* in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?
3. Is there a functional relation between workshops paired with practice-based coaching and a teaching team's implementation of social-emotional teaching practices?
4. What are early childhood teachers' perspectives of practice-based coaching and specialised social-emotional teaching practices for toddlers?

Table 1.1 outlines these research questions, related to each phase of the investigation. As shown in Table 1.1, the first research phase was a systematic literature review, which was designed to address research question *1) What are the characteristics of PLD research in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?* A systematic literature review is a piece of research in its own right (Oakley, 2002). The systematic literature review within this thesis was guided by PRISMA protocols (Moher et al., 2015) to support an investigation of Aotearoa New Zealand ECE PLD research. A rationale for the systematic literature review was the value of understanding and describing the characteristics of local PLD research. Understanding and utilising local research is important if PLD is to effectively support New Zealand ECE teachers. In other words, evidence generated from research applied within Aotearoa New

Zealand’s contextually and culturally unique ECE services is an essential component of evidence-informed PLD.

**Table 1.1**

*Research Aim, Questions, and Phases*

Research aim		
Aim: Investigate early childhood teachers’ professional learning and development, through a study of research, provision, and potential for transformation		
Research questions		
1. What are the characteristics of <i>PLD research</i> in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?	2. What are the characteristics of <i>PLD</i> in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?	3. Is there a functional relation between workshops paired with practice-based coaching and a teaching team’s implementation of social-emotional teaching practices?  4. What are early childhood teachers’ perspectives of practice-based coaching and specialised social-emotional teaching practices for toddlers?
Research phases		
1. An investigation of professional development <i>research</i> , conducted through a systematic literature review.	2. An investigation of professional development <i>provision</i> , conducted through a national survey.	3. An investigation of the <i>potential</i> of coaching, conducted through a single-subject experiment and a participant interview.

The second research phase was a national survey, conducted to address research question 2) *What are the characteristics of PLD in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?* The survey was distributed via a web-based questionnaire with the purpose of gathering descriptive information about who engages in PLD, what topics are covered, and how PLD is delivered. Survey questions were categorical in nature, meaning that a selection of responses was provided for each question, and participants chose the responses that best applied to them. The survey responses were analysed quantitatively, using

descriptive statistics. A rationale for the survey was the challenge of understanding provision of PLD in Aotearoa New Zealand ECE, due to the scattered nature of the current PLD provision.

The third phase of the investigation was designed to address the third and fourth research questions, 3) *Is there a functional relation between workshops paired with practice-based coaching and a teaching team's implementation of social-emotional teaching practices?* and 4) *What are early childhood teachers' perspectives of practice-based coaching and specialised social-emotional teaching practices for toddlers?* There were three key steps within phase three: 1) intervention development, which included development of PLD protocols and development of an observation tool; 2) intervention implementation, which involved conducting a PLD intervention and investigating its effects using a single-subject research design; and 3) intervention follow-up, in which the participating teaching team was interviewed to seek the teachers' views of the PLD intervention.

Phase three, step one involved the design and development of the PLD intervention, which incorporated workshops and practice-based coaching. Intervention development included the development of a framework of 30 teaching practices to support toddlers' social-emotional learning. Teaching practices can be defined as observable actions and words that teachers use to foster children's learning. The teaching practices were informed by multiple social-emotional and teaching resources, including *Te Whāriki* (Ministry of Education, 2017), *He Māpuna te Tamaiti* (Ministry of Education, 2019b), and *The Hikairo Schema* (Macfarlane et al., 2019). Three workshops were designed, with a focus on teaching practices within the framework and how they applied to the participants. With permission, practice-based coaching materials and protocols were adapted for use in an Aotearoa New Zealand toddler room. Based on these protocols, a coaching manual was developed (Clarke & McLaughlin, 2020a). The manual describes the process of the PLD intervention and incorporates resources, including coaching logs. To support coaching and data collection, an observation tool was also developed (Clarke & McLaughlin, 2020b). The observation tool incorporates the 30 teaching practices within the framework, with each practice operationally

defined. The observation tool has a 3 point scale to enable measurement of frequency, quality, and consistency of teaching practice implementation. Development of the PLD resources included trialling in ECE services that were not associated with the research.

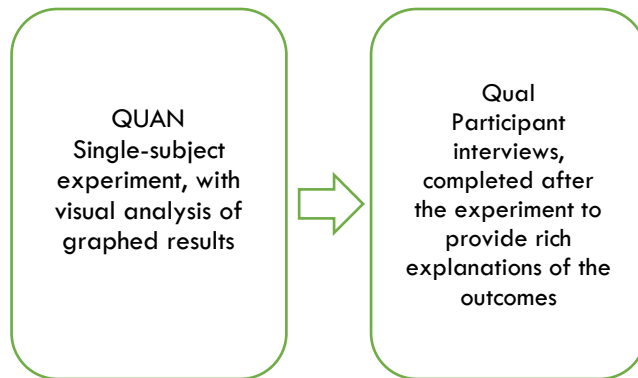
Phase three, step two was a single-subject multiple-baseline experiment, used to examine the effects of the PLD intervention on teaching practices to support toddlers' social-emotional learning. As Kennedy (2005) explains, single-subject methods are quantitative and experimental. Data are plotted on graphs and analysed visually. Visual data analysis occurs throughout the experiment and allows the researcher to notice trends and patterns in the data and, if necessary, adjust the experiment in response. For example, if a baseline is not stable, a decision to delay the intervention might be made. These types of decisions are made based on data trends, the needs or best interests of the participants, and with consideration of constraints such as time. Ongoing visual analysis and thoughtful adaptations are in line with the flexible and adaptable nature of single-subject research design (Kennedy, 2005). The data gathered for this phase of the research project focused on the teaching team's implementation of specific social-emotional teaching practices as the most proximal outcomes associated with the PLD intervention. Data on toddlers' learning outcomes were viewed as more distal in the design of the single-subject research study and were, therefore, gathered through teachers' perspectives in step three of this phase.

Phase three, step three involved a participant interview. The two members of the participating teaching team were interviewed together following the PLD intervention. Qualitative interview data were analysed with the intention of understanding teachers' perspectives of the PLD intervention, including the coaching and focus on teaching practices to support toddlers' social-emotional learning. Taken together, phase three was a mixed methods approach involving the use of a quantitative single-subject design and the addition of qualitative data in a follow-up interview, with the intention of explaining the results in more detail and in context. Figure 1.3 shows this mixed methods approach, which Creswell (2015) describes as an explanatory sequential design. A rationale for this phase of the investigation was the scarcity of coaching research in Aotearoa New Zealand

ECE, despite the potential for coaching to strengthen teaching practice (see Bishop et al., 2009; Bishop et al., 2014; Brunsek et al., 2020; Elek & Page, 2019; Kraft et al., 2018).

**Figure 1.3**

*Explanatory Sequential Mixed Methods Design*



*Note.* The use of capital letters for QUAN indicates it is the primary component, while the Qual component is supplemental.

### 1.7 Ethical Considerations

Two ethics applications were completed for different phases of this research. For the survey and systematic literature review, a low-risk university ethics notification was applied for and received from Massey University (Appendix 1). The low-risk application was appropriate because the systematic review did not involve participants, and the survey posed minimal risk to, or burden on, participants. The survey responses were anonymous, and participants were provided detailed information about the survey and its purpose. For the components of the research that involved working with toddler teachers—i.e., the single-subject experimental study and group interview—an ethics application was approved by Massey University Human Ethics Committee (Appendix 2) and was used to guide all aspects of the project. Key ethical considerations were:

- Research processes included informed consent, voluntary participation and right to withdraw. Recruitment involved providing potential participants with written and verbal information and allowing them time to consider the information, ask any questions, and make decisions. If participants decided to withdraw, their data would be used up to the point of withdrawal, as agreed through a process of informed consent. The researcher clearly communicated that any teaching team member's participation decisions would not affect the participation of other team members.

- The researcher was a registered teacher with police clearance, as required through the Vulnerable Children Act 2014 (Justice.govt.nz, 2020). The two research assistants also had police clearance through their work in other education settings. The researcher and research assistants always adhered to the ECE services' policies and procedures. Families were informed about the research and the presence of the researcher and assistants.
- Videos of teachers working with children were used for coaching purposes. The ECE service had procedures in place around the use of videos and these were adhered to.
- To minimise risk of harm to participants from inappropriate use of information, including using information about teachers' practice for purposes outside the research, observations of teachers' practice were marked for the purposes of this research only and were stored securely.
- Teacher participants, and ECE service management, were given full information about the research purpose and scope of the data collection.
- Reflective practice and communication with supervisors helped to mitigate any potential conflict between the dual roles of coach and researcher. Interobserver agreement was used to check reliability of observational data.

### **1.8 Thesis Structure**

This thesis has seven chapters, four of which have been published or submitted for publication in line with Massey University's guidelines for a PhD thesis by publications (Appendix 3). In integrating the publications into this thesis, some minor revisions have been made to the published versions, such as re-labelling table and figure numbers, replacing some English words with te reo Māori, and editing acronyms, heading and reference formats to maintain consistency.

Following each published article (or article submitted for publication), there is a statement describing authors' contributions to the publication. For each article, a *Statement of Contribution Doctorate with Publications/Manuscripts* is provided in the appendices section (Appendix 4). *Massey University Thesis by Publications* guidelines (Appendix 3) state that authorship on publications within

the thesis should be determined on APA guidelines, which state that PhD supervisors are not automatically included as authors on all publications. In this thesis, the doctoral candidate is the first author of each manuscript and the supervisors are co-authors. Authorship decisions were made following discussions driven by journal and APA guidelines, and by the candidate’s philosophy that the contributions of every member of a group are essential to what can be achieved.

**Figure 1.4**  
*Outline of Each Chapter of the Thesis*

Chapter 1. Introduction	The research and context are introduced. Relevant literature is reviewed. The research questions are posed and ethical considerations discussed. The thesis structure is outlined. (Not for publication).	
Chapter 2. A Study of the PLD Research Literature	Research article submitted for publication.	
Chapter 3. A Survey of Teachers’ PLD Experiences	Published research article.	
Chapter 4. PLD Intervention Development	The development of the PLD intervention is described. (Not for publication).	Published research note.
Chapter 5. PLD Intervention Implementation	Manuscript in preparation.	
Chapter 6. Teachers’ Perspectives of the PLD Intervention	Report of the teachers’ perspectives of practice-based coaching and social-emotional teaching practices for toddlers. (Not for publication).	
Chapter 7. Conclusion	The research questions are answered. The unique contribution of this thesis is described and recommendations are made. (Not for publication).	



The structure of publications within the thesis is outlined in Figure 1.4. The three phases of this investigation contribute to a common aim of investigating teachers' PLD in Aotearoa New Zealand ECE. In the final chapter, the multiple research components are drawn together to answer the research questions. The numerous contributions this thesis makes to the wider PLD knowledge base are discussed in the final chapter. Recommendations for PLD research and provision are then provided before the thesis closes.

### **1.9 Chapter Summary**

Chapter 1 has introduced the research, including the purpose and design of this multiphase investigation. The Aotearoa New Zealand ECE context was described, along with a short history of PLD within this context. The narrative literature review and historical context included the topics of professional development, coaching, social-emotional learning, culturally responsive teaching, and toddler pedagogy. The narrative review had an emphasis on Aotearoa New Zealand ECE and PLD, positioning this thesis within the wider context of knowledge and practice within this field. Following the literature review and historical context, the research questions were introduced and each of the three research phases was summarised. Ethical considerations were described. The chapter concluded by outlining the structure and content of this thesis with publications.

## Chapter 2. A Study of the PLD Research Literature

### 2.1 Chapter Introduction

The first phase of the investigation was a study of the PLD research literature, which aimed to describe the characteristics of PLD research in the Aotearoa New Zealand ECE context. This aim was accomplished through a systematic literature review. Systematic literature reviews differ from traditional narrative literature reviews in terms of goals, design components, requirements, and research and publication value (Efron & Ravid, 2019; Kysh, 2013), as can be seen in Table 2.1.

**Table 2.1**

*The Difference Between a Systematic Review and a Traditional Narrative Literature Review*

	Systematic review	Traditional narrative literature review
Description	A comprehensive, systematic, and replicable review of literature in an area, using pre-determined protocols to identify, select, synthesise, and appraise research evidence	A narrative summary of evidence on a topic, using informal or subjective methods to collect and interpret studies
Goals	Answer a well-focused and specific research question Support evidence-based practice Eliminate bias and enhance accountability Support replication	Provide a comprehensive background of a topic Critically synthesise information into a coherent interpretation Highlight issues, trends, and complexities
Focus	A clearly defined and answerable research question	May be a general topic or broad guiding questions
Procedures	Exhaustive and comprehensive literature searches based on explicit and strict protocols Predetermined exclusion and inclusion criteria Coding criteria to document features of the literature with consistency Reliability checks/inter-coder agreement	The search may be extensive but does not attempt to locate all relevant literature Criteria for search methods are seldom offered Criteria for selection of sources and information reported are not explicitly presented
Research type	Focus on empirical studies Review can include quantitative, qualitative, and mixed method research studies	Includes both theoretical and empirical studies May include grey literature such as reports or informed commentaries
Timeline	Months to years/average of 18 months	Weeks to months
Purpose	Addresses research questions	Provides an overview of literature on a topic

*Note.* Adapted from Kysh, L. (2013). *Difference between a systematic review and a literature review*. figshare. <https://doi.org/10.6084/m9.figshare.766364.v1> and Efron, S. E., & Ravid, R. (2019). *Writing the literature review: A practical guide*. The Guilford Press.

The present study used a systematic literature review approach to describe the current state of PLD research in Aotearoa New Zealand ECE. Preferred Reporting Items for Systematic Review and Meta-analyses (PRISMA) protocols (Moher et al., 2015) were used to guide the design, conduct, and reporting of the systematic review. A key rationale for studying the PLD research through the conduct of a systematic literature review is the importance of better understanding PLD research that has been applied within Aotearoa New Zealand's contextually and culturally unique early childhood settings. This investigation of PLD research literature addresses research question 1) *What are the characteristics of PLD research in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?*

The investigation of the PLD research literature has been submitted for publication in *NZARoE, New Zealand Annual Review of Education: Te Arotake a Tau o Te Ao o te Matauranga i Aotearoa* (<https://www.wgtn.ac.nz/education/research/nzaroe>). NZARoE is published by the Faculty of Education at Te Herenga Waka Victoria University of Wellington. The *NZARoE* journal provides a forum for analytical reviews of issues that are significant to New Zealand education. *NZARoE* is not an indexed journal but it is open access, which promotes wide readership. *NZARoE* is recognised as an excellent choice of journal in terms of making the study accessible to the Aotearoa New Zealand education sector. The article will undergo double blind peer review with *NZARoE*.

## **2.2 Characteristics of Professional Development Research in the Aotearoa New Zealand Early Childhood Education Sector: A Systematic Literature Review**

Clarke, L. R., McLaughlin, T.W., Aspden, K., Riley, T. & Gifkins, V. (2021). *Characteristics of professional development research in the Aotearoa New Zealand early childhood education sector: A systematic literature review*. Manuscript submitted for publication.

**Note:** A summary of the studies that were reviewed is available in Appendix 5.

### **Abstract**

Teachers' professional learning and development (PLD) is an essential component in the provision of quality education. Over time, research has sought to enhance understanding of PLD in ways that can contribute to more effective PLD programmes. Yet, gaps remain between PLD research, policy, and practice. Synthesising extant research is important to identify a baseline of existing and cumulative knowledge, and reveal research-to-practice gaps. This article reports the results of a systematic literature review, conducted to identify characteristics of PLD research within New Zealand's early childhood education sector. Fifty-six studies were reviewed. Findings identify that the predominantly descriptive body of research is characterised by a convergence of researchers' and teachers' roles, largely positive outcomes, and a broad content focus with less attention to PLD processes.

### **Introducing the Current Study**

Objective 3.6 in the Ministry of Education's (2019a) *Early Learning Action Plan 2019–2029* is for the introduction of a professional learning and development (PLD) programme to support implementation of localised curriculum, aligned with *Te Whāriki* and responsive to all children. In the Ministry's words, the national PLD programme is to be "sustained and coherent" with all PLD including "a focus on identity, language and culture and the inclusion of children with disabilities or additional learning needs" (p. 25). In developing the PLD programme, the Ministry aims to review its current PLD design, delivery, and funding (Ministry of Education, 2019a).

If PLD is to effectively support teachers and leaders in Aotearoa New Zealand's diverse ECE sector, it will be critical for a national PLD programme to be evidence-informed and draw from local,

as well as international, research. In particular, if all PLD is to include a focus on identity, language, and culture, the national PLD evidence base will be an essential component within the Ministry's review of PLD. To better understand the national research base, we conducted a systematic literature review of studies involving PLD in Aotearoa's ECE contexts. The systematic literature review was not intended to identify effective features of PLD nor assess quality of research. The intention was to describe the characteristics of the research and the PLD interventions that were researched. As a component of a wider doctoral project that investigated coaching as a PLD approach, the systematic review also sought to explore the use of coaching within Aotearoa New Zealand PLD research. Key aims were to describe characteristics of New Zealand ECE PLD research; identify any coaching used as a PLD component within the research; identify research gaps.

This article begins by discussing PLD and coaching in education, followed by an overview of the use of systematic literature reviews in educational research. From there, the current systematic literature review is described and the results discussed with the intention of understanding Aotearoa New Zealand's ECE PLD research and identifying pathways forward for future PLD research and provision.

### **Professional Learning and Development and Coaching**

PLD plays a critical role in fostering quality teaching and promoting positive outcomes for children and whānau, enabling teachers to strengthen their capabilities throughout their careers (Ministry of Education, n.d.-a). Whether PLD will be effective, though, depends largely on the match between the PLD approach and the intended outcomes. For example, isolated short-term workshops may be effective if the intended outcome is to impart information but are not likely to result in sustained shifts in teaching practice (Timperley et al., 2007; Zaslow et al., 2010). Yet, with apparently little thought given to the desired outcomes, workshop models of PLD have long prevailed as a common PLD approach for Aotearoa's ECE teachers (Cherrington, 2017; Clarke et al., 2020).

Coaching is increasingly recognised as a component of PLD that can promote teachers' learning and application of that learning in practice, promoting positive outcomes for children (cf.

Brunsek et al., 2020; Elek & Page, 2019; Kraft et al., 2018). As described by Joyce and Showers (1982), coaching provides teachers with facilitated support that involves observing teachers as they apply newly learned teaching skills to practice, followed by feedback and discussion, and usually repeated over time until mastery is achieved. Strategies and processes often associated with coaching include goal setting, action planning, teacher-coach collaboration, and performance feedback (Elek & Page, 2019; Kraft et al., 2018). Performance feedback is specific, descriptive feedback directly related to a teacher's observed performance (Snyder et al., 2015). Coaching is sometimes conflated with mentoring but can be differentiated by the specificity of the coaching process. Mentoring is usually described in more holistic terms: a supportive relationship that involves a mentor helping a teacher to build teaching capacity; a more experienced person supporting someone less experienced; or a learning partnership involving the sharing of skills and knowledge (Thornton, 2015).

In Aotearoa New Zealand, coaching has featured in secondary school education, notably through the Te Kotahitanga project to enhance teachers' responsiveness to Māori students (Alton-Lee, 2015; Bishop et al., 2009). On a smaller scale, a coaching exemplar from De La Salle College describes the use of coaching to enhance teachers' interactions and relationships with Pacific Island students (Spee et al., 2016). In primary school classrooms, Aiono's (2020) doctoral work investigated coaching as a PLD approach to foster effective teaching-through-play practices. However, it is difficult to find reports of coaching used to support teachers in Aotearoa New Zealand ECE contexts.

### **An Evidence Base to Support Effective Professional Learning and Development**

The evidence of what constitutes quality PLD within Aotearoa New Zealand's education sector has previously been synthesised in best evidence synthesis (BES) iterations from Mitchell and Cubey (2003) and Timperley et al. (2007). At the time of writing this article, it has been 18 and 14 years respectively since these syntheses were published. Nevertheless, both landmark BES reports continue to represent significant sources of information regarding characteristics of quality PLD.

For ECE PLD, Mitchell and Cubey's BES methodology was based on systematic literature review strategies of "having explicit and transparent methods, and being accountable, updateable, and replicable" (2003, p. 4). The BES followed systematic reviewing standards of using protocols to guide the review, answering specific questions, identifying as much relevant research evidence as possible, appraising research quality, and synthesising the evidence (Mitchell & Cubey, 2003). Two approaches to the synthesis of evidence were used: narrative review, which considers the methodological quality of studies and compares different features of studies with their outcomes; and realist synthesis, which considers mechanisms that trigger change and is used to develop theories of change. At the time the Mitchell and Cubey BES was published, systematic literature reviews were emerging as an educational research method (Oakley, 2002).

More recently, systematic literature review methodologies have gained greater recognition within ECE research because of their potential to advance research rigour and application, and to meet demands for evidence that can inform policy (Ang, 2018). Systematic literature reviews can also be useful in identifying characteristics of research in a field. For example, Soto-Boykin et al. (2021) systematically reviewed 30 research articles to identify researchers' descriptions of children and caregivers from linguistically minoritised communities. Most descriptions were found to be English-centric and recommendations were made for the use of strength-based language in research and practice. Another example is a systematic review of research into challenging behaviour interventions. Steed and Kranski (2021) reviewed 53 articles that described characteristics of participants in behaviour intervention studies, and found that boys and Black and Latino children were overrepresented. Implications were identified in relation to participant recruitment and culturally responsive interventions. Thus, systematic literature reviews can be utilised to highlight features and characteristics of socially-situated research, providing important insights to advance the research base.

While the basic principles of systematic reviews have not changed since they were applied to Mitchell and Cubey's (2003) BES, they are currently more likely to be guided by Preferred Reporting

Items for Systematic Reviews and Meta-analyses (PRISMA) protocols (Page et al., 2021). PRISMA guidelines and protocols were developed by an international group of experts in response to the need to support the planning, conduct, and reporting of systematic literature reviews (Shamseer et al., 2015). PRISMA guidelines and protocols support systematic literature review processes and can minimise potential issues, such as bias due to selective inclusion of studies based on outcome (Shamseer et al., 2015).

Within educational research, systematic literature reviews are increasingly used to address a range of questions related to teachers' PLD, including examining associations between PLD content and children's outcomes linked to those content areas (Brunsek et al., 2020); identifying features of successful coaching (Elek & Page, 2019); and identifying characteristics of ECE PLD literature (Snyder et al., 2012)—notably, the literature reviewed in these studies is almost exclusively international research. Fler et al. (2021) recently noted that “[n]o systematic review of Australian or New Zealand studies could be found into the effective characteristics of Early Childhood PD [professional development] programs for practice change” (p. 3). The current study has sought to describe the Aotearoa New Zealand research base by using PRISMA protocols to identify the characteristics of the ECE PLD research, specifically in terms of who was involved, what the PLD entailed, and how the PLD was delivered.

## **Methodology**

The National Professional Development Center on Inclusion's (NPDCI; 2008) professional development conceptual framework comprising *who*, *what* and *how* was used to navigate the review. *Who* refers to participants and the contexts and communities in which they work. *What* is the topic, content and focus of PLD. *How* includes PLD facilitation and delivery modes. *Who*, *what* and *how* is a highly relevant framework to conceptualise PLD research within Aotearoa New Zealand's diverse ECE sector because it recognises that there is no one size fits all solution. Rather, the effectiveness of PLD is contingent on who is learning, what they are learning, and how the PLD is applied.



PRISMA protocols and the PRISMA-P 2015 checklist (Moher et al., 2015; Shamseer et al., 2015) guided planning, documentation, and reporting of the review. A rationale, hypotheses, research question and methods were outlined a priori. In line with PRISMA reporting protocols, the inclusion criteria, search strategies, and coding procedures are described below.

**Rationale.** The rationale for systematically reviewing Aotearoa New Zealand’s ECE PLD literature was the importance of describing characteristics of the research to promote understanding of the PLD evidence base. Given the potential of coaching as a PLD approach and the apparent lack of coaching in the ECE sector, it was also important to identify the extent of coaching research in the Aotearoa New Zealand ECE sector.

**Hypotheses.** It was hypothesised that the research would be predominantly descriptive and explore a range of PLD topics, approaches, and models. Coaching was not expected to be widely researched.

**Research Question.** What are the characteristics of PLD research in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?

**Eligibility Criteria.** To be eligible for inclusion, studies were required to examine or explore PLD in Aotearoa New Zealand’s ECE context, with participants being ECE staff. Thus to be included, the stated research objective and/or at least one research question was required to include a reference to examining, describing or exploring a relationship between PLD and teachers’ knowledge and practice, or student outcomes related to the PLD. PLD was defined as facilitated teaching and learning experiences designed to support in-service teachers’ acquisition of professional knowledge, skills, or dispositions. Action research was defined as PLD, as long as there was some outside facilitation—not solely facilitated by the teaching team. Centres of Innovation (COI) research was included providing a report was available online (Education Counts, n.d.-a) and providing the COI research had been completed. No restriction was placed on research methodologies, nor publication status. Published and unpublished research was included but conference papers were excluded. Literature was restricted to a time frame of January 2000 to January 2019.

**Search Strategies and Terms.** Search terms used in the Discover, Scopus, and A+ Education

data bases are provided in Table 2.2.

**Table 2.2**

*Data-Bases and Search Terms*

Data-bases and search terms	
Discover and Scopus	A+ Education
NZ OR Aotearoa OR Zealand	Zealand
AND	AND
ece OR "early childhood education" OR preschool* OR kindergarten* OR playcentre* OR "kōhanga reo" OR home-based OR "early intervention"	"early childhood education" OR "preschool education" OR "child care centre" OR "kindergarten" OR "early intervention"
AND	AND
"professional development" OR "professional learning" OR "continuing education" OR coach* OR mentor* OR "action research" OR "learning community" OR "community of practice" OR "teacher inquiry" OR "teacher enquiry" OR workshop	"professional development" OR "learning communities" OR "professional continuing education" OR "in service education" OR "mentoring" OR "mentors" OR "teacher improvement" OR "continuing education" OR "coaching"

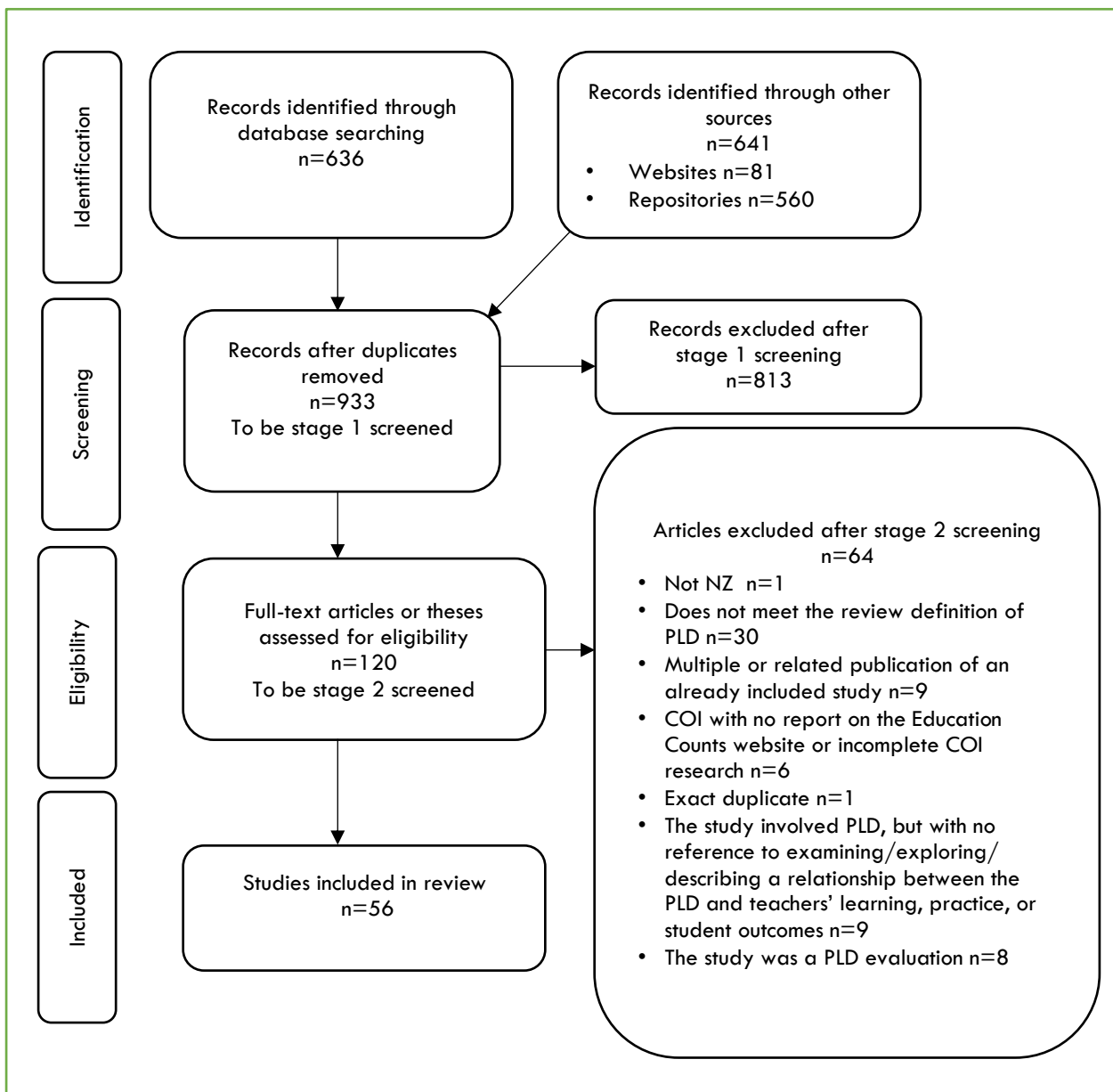
*Note.* Use of the A+ Education thesaurus meant that the search strategy/phrases differed.

Searches were conducted between 26/12/2018 and 21/01/2019. Masters and doctoral theses were sourced through nzresearch.org, along with separate university research repositories, using the search terms "professional development", "professional learning" and "early childhood education." Literature was also sourced from the websites of Education Counts (n.d.-b) and Teaching and Learning Research Initiative (TLRI; n.d.).

To promote comprehensiveness, a sensitive (rather than specific) search strategy was used. Sensitive search strategies are intended to identify a large number of potential studies, with the aim of identifying all relevant studies. A sensitive strategy will also be likely to identify many irrelevant studies, which are then screened and filtered through a series of eligibility criteria. A PRISMA flow chart of the literature search is provided in Figure 2.1.

**Figure 2.1**

*PRISMA Flow Chart of the Literature Search*



As outlined in the PRISMA flow chart (Figure 2.1), a total of 1,277 texts were found.

Removing exact duplicates reduced this number to 933 texts, which were screened for inclusion according to the following criteria:

- Published between 2000 and 2019
- Involved an Aotearoa New Zealand ECE service
- Involved PLD, which we defined as facilitated teaching and learning experiences designed to support in-service teachers' acquisition of professional knowledge, skills, or dispositions. The

study's research objective and/or at least one research question had to refer to a relationship between the PLD and teachers' knowledge, learning, or practice

Screening identified 120 full texts. Of these, 64 were excluded because closer reading revealed that the studies either did not meet the initial screening criteria, or were a related publication of an already included text (i.e., one study with multiple publications). Eight PLD evaluations were also excluded for this analysis. Fifty-six studies were included in the final review because they met the criteria listed above. Appendix 5 lists the reviewed studies, and summarises the diverse range of research that was reviewed.

**Coding Procedures.** A coding manual inclusive of coding categories, decision rules, operational definitions (i.e., clear and detailed definitions of all relevant terms) and procedures was developed and referred to throughout the review process. Coding categories addressed three areas: 1) purpose and design of the research; 2) research participants and their contexts; 3) topic, delivery, and PLD outcomes. A coding form was developed using Qualtrics (<https://www.qualtrics.com>).

**Reliability Testing.** A secondary coder was trained on the manual and procedures, by meeting with the primary coder and a doctoral research supervisor to discuss and practise the coding process. A second training session and ongoing support was provided by the primary coder. The secondary coder independently coded 14% ( $n = 8$ ) of studies previously reviewed by the primary coder. Percentage agreements were calculated for each question by summing the number of agreements, dividing by the number of agreements plus disagreements, and multiplying by 100. Agreements ranged from 78% to 100%, with the exception of five questions for which agreements were 35%, 50%, 56%, 67% and 74%. Consensus coding was conducted for these questions. Consensus coding involved two coders working collaboratively, comparing answers, discussing disagreements, and reaching consensus on the most accurate answers.

**Analysis.** Raw coding data, generated through Qualtrics (<https://www.qualtrics.com>), were exported to SPSS version 28 and analysed using descriptive statistics. Results are reported as

frequencies and/or percentages to describe the research designs, and the *who, what* and *how* of Aotearoa New Zealand’s ECE PLD research.

## Results

### *The Literature and Research Designs*

Of the 56 studies included in the review, 50% were presented in reports, 27% theses, and 23% journal articles. Forty-eight percent of the studies were action research. Other non-experimental research designs featured in 38% of studies and included descriptive and exploratory research and fusions of designs including kaupapa Māori research approaches. Experimental or quasi-experimental designs featured in only 14% of studies. Data collection strategies used in more than 10% of studies are listed in Table 2.3, which indicates many of the studies utilised interviews, diaries, meetings, and surveys to identify participants’ perspectives.

**Table 2.3**

#### *Data Collection Strategies*

Data collection strategies	% of studies
Interviews with participants	52
Document analysis	43
Participant diaries/logbooks	41
Hui or meetings	38
Participant survey or questionnaire	36
Video observations	32
Other observations (not tool, photos or video)	27
Interviews with parents/families	23
Photos	21
Anecdotes/conversations/feedback/talanoa (from parents, facilitators, visitors or participants)	20
Observation tool/scale	20
Parent/family survey or questionnaire	16
Case studies within a wider study	13
Interviews with children	13
Field notes	11

*Note:*  $n = 56$ . Some studies used multiple data collection strategies. Percentages will not always total 100.

## The “Who” of PLD Research

**ECE Services.** Table 2.4 outlines the service types that participated in research. Education and care services and kindergartens were the most researched providers.

**Table 2.4**

### *Participating ECE Services*

Participating ECE services	% of studies
Education and care (ECEC)	52
Kindergarten	43
Playcentre	9
Home-based	9
Māori immersion or Kōhanga Reo	7
Pacific Island immersion licensed as ECEC	5
Barnados	2
Not specified	4

*Note:*  $n = 56$ . Some studies were held in multiple settings. Percentages will not always total 100.

**Participants’ Characteristics.** Participant/teacher characteristics of qualifications, teaching experience, gender, ethnicity, and age were reviewed. Forty-eight percent of studies involved qualified ECE or primary teachers; 16% involved participants with other qualifications, including playcentre qualifications; 16% involved participants who were not qualified but in training; and 13% involved participants with no teaching qualification. Fifty percent of studies reported the teachers’ or participants’ qualifications. (In most studies there was a mix of qualifications across participants, thus percentages will not total 100%).

**Children’s Ages.** Twenty-three percent of the studies involved ECE service/s where children were in the age range of 0–6 years; 7% 0–2 years; 5% 2–6 years; 18% 3–6 years; and 2% 4 years. Forty-one percent of studies did not report the ages of children who were enrolled at the participating ECE service.

The other characteristics (participants’ teaching experience, gender, ethnicity, and age) were seldom reported in the studies reviewed, therefore, we have simply indicated the percentages of

studies that reported these participant characteristics, as can be seen in Table 2.5. Table 2.5 also shows that 47% of studies reported none of the listed characteristics.

**Table 2.5**

*Reported Characteristics of Participants*

Reported participant/teacher characteristics	% of studies
Qualifications	50
Teaching experience	20
Gender	20
Ethnicity	18
Age	5
None of the above were reported	47

*Note:*  $n = 56$ . Some studies reported multiple characteristics. Percentages will not always total 100.

**The “What” of PLD Research**

**Topic and Content.** A wide range of topics was investigated throughout the studies. Table 2.6 shows categories of topics that featured in more than 2% of the studies. Some topics fell into multiple categories and topics were described in varying detail across the studies, thus the categories listed in Table 2.6 are indicative. A further indication of topics is available in Appendix 5, which summarises each study’s aims or key research questions.

**Table 2.6**

*PLD Topic*

Categories of topics	% of studies
Supporting children’s working theories and thinking	16
Families/whānau/community	14
Cultural competency, including kaupapa or te reo Māori, identity, language and Pasifika pedagogies	14
Framework (e.g., <i>Te Whāriki</i> )	13
Literacy	11
Emotion/social-emotion	11
Leadership	9
Infant/toddler pedagogy	7
Assessment	5
Music	5

Transitions, including school transition, continuity of learning and/or transitions into and within ECE services	4
Maths	4
ICT	4
Drama/storytelling	4
Nature/environment/sustainability	4
Reflective practice	4

*Note: n = 56. Some studies involved multiple topics. Percentages will not always total 100.*

The content of the PLD, or what teachers learned, was often made evident through reported outcomes. Therefore, as shown in Table 2.7, we have conceptualised outcomes as part of the *what* of PLD.

**Table 2.7**

*PLD Content/Outcomes*

Reported teacher outcomes	% of studies
Teachers' practice	
Abilities to address stereotyping, bias or exclusion	16
Teachers' interactions with parents	39
Teachers' interactions with children	63
Any other aspect of actual practice	71
Teachers' awareness	
Knowledge and understanding of diversity	21
Pedagogical and topic awareness and knowledge	50
Other attitudes, dispositions and/or beliefs	70
Other	
Outcomes not met or inconclusive findings	14
Changes to ECE environments or programmes	45

*Note: n = 56. Studies reported multiple outcomes. Percentages will not always total 100.*

Nearly all of the reviewed studies reported positive outcomes, with just 14% reporting either inconclusive findings or no change for teachers, however, numerous studies discussed barriers to success. Rather than reporting frequencies of the barriers reported, we have categorised the commonly reported barriers into four areas:



1. Some aspects of the PLD were ineffective because they related to challenging issues, or represented complex learning or skills, or because teachers needed extra/different support
2. Challenges arose related to the dynamics of the group of teachers, including tensions, leadership challenges, and varying abilities to engage in critical thinking, open debate or discussion
3. Teaching environments, including conflicting priorities, staff changes, children's attendance, and lack of resources made PLD challenging
4. It was difficult for teachers to apply what they learned to practice; or awareness or knowledge changed but not practice; or it was challenging to maintain practice without ongoing facilitator support

In reviewing the outcomes of PLD, we attempted to determine whether evidence to support teachers' outcomes came solely from teacher report or from a wider range of data collection strategies. Connections between data and participants' outcomes were not always clear, however, it appeared that 50% of studies reported outcomes based solely on teachers' reports.

### ***The "How" of PLD Research***

**PLD Dose.** PLD dose refers to the duration, frequency, and intensity of PLD sessions or programmes. Across the studies, programme duration ranged from less than a week to 4 years: 14% of studies did not clearly report the duration of the PLD programme. The number of PLD sessions ranged from one workshop to more than 15 sessions or meetings: 41% of studies did not clearly report the number of sessions. Length of sessions, discussions or meetings ranged from 2 hours to a full day: 52% of studies did not clearly report session length. The frequency of sessions ranged from less than a week to 10 weeks apart: 52% did not clearly report frequency.

**PLD Models.** PLD models (e.g., workshops) are outlined in Table 2.8. Shared inquiry, which we defined as groups of teachers engaging in PLD with an emphasis on collaborative inquiry (which could include analysing data, reflecting on teaching practice, and taking steps to strengthen practice) was the most frequent PLD model. Centres of Innovation (COI) research is a form of shared inquiry

but, because of the unique nature of the COI programme, has been categorised separately in Table 2.8. The total percentage of studies that involved shared inquiry, including COI, is 64%.

**Table 2.8**

*PLD Model and Facilitation Supports*

PLD model	% of studies
Shared inquiry (e.g., learning community, action research)	41
Centres of Innovation research	23
Series of workshops	14
Workshop/s plus facilitated support directly linked to teachers' work with children <sup>1</sup>	9
Shared inquiry plus facilitator visits	4
Workshops plus shared inquiry	4
Facilitated web training or web-based inquiry plus shared inquiry	2
One-off workshop	2
Workshop plus facilitated support directly linked to teachers' work with each other <sup>1</sup>	2
Workshops plus facilitator visits	2

*Note:*  $n = 56$ . Some studies involved multiple PLD models across different groups. Percentages will not always total 100.

<sup>1</sup> These facilitation supports involved strategies that are associated with coaching, such as observing, providing feedback, and setting goals.

**Facilitators' Training.** The PLD facilitator's training was reviewed in terms of how clearly or thoroughly it was reported: 43% of studies reported nothing about the facilitator's training, experience or preparation; 25% provided a general description, such as "facilitated by an experienced professional development facilitator"; 32% provided a clear, more detailed description that included how much experience a facilitator had, and how much training or support they had received to conduct the PLD, and any areas of expertise.

**Facilitation Strategies.** Table 2.9 outlines a range of facilitator actions/strategies and the percentage of studies that reported each. Providing feedback directly related to observed teaching practice is a common aspect of coaching as it has been defined for this review and was identified as a facilitation strategy in 5% of the studies. Twenty-five percent of studies reported that feedback was provided but described provision of feedback in general terms, not specifying what the feedback

entailed. Facilitation actions/strategies were also reviewed for clarity of reporting: 70% of studies reported the facilitator’s teaching actions clearly or fairly clearly; 30% did not report the facilitator’s actions at all or did so in very limited terms, such as “the facilitator supported the participants.”

**Table 2.9**

*Facilitation Strategies*

Facilitator action or strategy	% of studies
Supporting participants to investigate pedagogy in the context of their ECE setting	84
Presenting or providing new information e.g., introducing a framework	77
Facilitating/encouraging/supporting participants’ pedagogical or reflective conversations; can include challenging or questioning or providing opportunities for participants to question their views	75
Getting to know participants/building relationships/collaborating	68
Using data: including using data as evidence to support teacher reflection and/or shifts in practice; identifying discrepancies through data; involving teachers in the analysis of data from their ECE setting	43
Observing practice, in any way that is related to PLD (not solely research data collection)	29
Providing general feedback	25
Mentoring and/or coaching, defined/described in brief/general terms or not at all	20
Modelling/demonstrating teaching practice or showing video exemplars	14
Mentoring and/or coaching, with a detailed definition of one or both	11
Providing performance feedback, related to teachers’ practice or actions	5
None of the above	2

*Note.*  $n = 56$ . Some studies involved multiple facilitation strategies. Percentages will not always total 100.

The reporting of two facilitation strategies, mentoring and coaching, was reviewed in more detail. Mentoring was reviewed, as well as coaching, because we were interested in how the two were conflated or differentiated. We searched for the terms “mentor” and “coach” (and derivations of) within the studies, and identified when the terms were used to describe a facilitation strategy, as opposed to use of these terms in a literature review or discussion. We recorded any mentoring and coaching definitions or descriptions that were provided.

Only 14% of studies ( $n = 8$ ) used the word coaching (or derivations of) to describe a facilitation strategy and three of these studies provided no description or definition of coaching. In the other five studies, coaching was defined or described in a variety of ways. One study clearly described the specific coaching actions the coach used to support teachers' learning. These actions included video observing, reviewing data, engaging in reflective conversation, asking questions, supporting teachers to make goals and action steps and, sometimes, adapting the process to best support teachers. Other studies included less detail, with some mentioning just one coaching action, such as the provision of feedback. Coaching was sometimes described in general terms, such as working in a zone of proximal development. Coaching was sometimes referred to as part of a wider role; for example, a role within a tuakana-teina relationship or an aspect of being a critical friend. One study associated the word coach with the terms trusted inquisitor, critical friend, and facilitator.

Thirty percent of studies ( $n = 17$ ) used the word mentoring (or derivations of) to describe a facilitation strategy, with nine studies providing no clear description or definition of mentoring. One study described mentoring as more experienced teachers working alongside less experienced teachers, guiding them to extend children's thinking and conversations, and involving discussions that were analytical and challenging, however, it was not clear whether this is what actually occurred for the participants. In other studies, mentoring was described in terms of mentor attributes: a supportive, understanding guide. Mentor actions were also mentioned, and included observation, feedback, engaging in professional and reflective dialogue, understanding contexts and not imposing ideas. One study described the attributes of a mentor as needing to be context specific, having an understanding of the kaupapa and historical context of the ECE setting.

## **Discussion**

The systematic literature review identified 56 studies that addressed PLD in ECE settings in Aotearoa New Zealand. Overall, many characteristics of participants, interventions or PLD facilitators were not included or not described with sufficient detail to fully understand the PLD. Given the intention and scope of much of the PLD reviewed, this is not a criticism. It is a description of the

existing research base that suggests a need for more Ministry of Education attention to, and funding of, specifically focused PLD research within Aotearoa New Zealand's ECE sector. We discuss the characteristics of the reviewed studies, including the *who*, *what* and *how* of PLD research and how these characteristics relate to current Ministry of Education PLD objectives.

### ***Research Methodologies and Literature***

The process of categorising the literature, specifically deciding whether it was PLD research, highlighted one of the key characteristics of this body of research: that boundaries between research methodologies and PLD interventions were often blurred (cf. Hedges, 2010). Sounding something like the Devil from Kipling's *The Conundrum of the Workshops* (Kipling, 2017), the question "it is striking but is it PLD?" arose throughout the categorisation of studies! Because this systematic literature review was intended to describe, not assess or analyse, no restrictions were placed on publishing status, standards, nor research methodologies. Adhering to the operational definitions, we reviewed 56 studies that met our definitions and involved teachers' professional learning but that explored, described, or investigated the PLD in a diversity of ways. For example, in many action research studies, the research itself was essentially a form of teacher PLD (cf. Cardno, 2008). In some studies, topic or pedagogical content knowledge and its relevance for the teachers (the *what* and *who* of PLD) were key foci. Some of the research focused more firmly on whether a PLD approach was effective for purpose (the *how* of PLD). Thus, there was a range of studies that had been published for a range of purposes, which can explain inconsistencies in the reporting of characteristics such as *who*, *what* and *how*. Yet, moving forward, no matter the motivation or intent of PLD research, understanding *who*, *what* and *how* is vital if research is to inform relevant and effective PLD provision in a diverse ECE sector.

Experimental research methods were rare. Most of the research designs (86%) were non-experimental and utilised qualitative research methods to offer insights into the experiences of participants. As Mutch (2013) points out, qualitative research methodologies may be more appropriate in applied settings. There is also a possibility that Aotearoa New Zealand ECE

researchers are caught in a quantitative versus qualitative polemic. Whatever the reason, future ECE research should not discount research questions that are explored through experimental or quasi-experimental designs, including larger scale intervention studies or comparative designs that enhance our empirical PLD research base (cf. McLachlan et al., 2018). Moreover, data from a wide range of qualitative and quantitative sources are, potentially, powerful tools in informing research and supporting teachers' learning and practice (McLaughlin et al., 2020). It may be useful to note that kaupapa Māori approaches to research are not at odds with experimental or quasi-experimental designs (Pihama et al., 2015). All high-quality research involves using the appropriate methods to serve the purpose. A robust evidence base will have ample sources of evidence drawn from different methodologies.

Nearly all of the reviewed studies reported positive teacher outcomes. The positive findings may be explained by the nature of the research. In an action research study, for example, PLD is likely to be adapted throughout the project to meet teachers' needs and promote positive outcomes. Nonetheless, it remains important to identify challenges or barriers to success. Challenges identified within the studies included those related to group dynamics, structural conditions, and the degree to which the PLD could support diverse participants and the application of knowledge to practice. Similar challenges have been identified through Best Evidence Syntheses (Mitchell & Cubey, 2003; Timperley et al., 2007) and PLD evaluations (Cherrington et al., 2013), and highlight the importance of matching PLD with participants, contexts and intended outcomes.

In the reviewed studies, teacher report was a common data collection strategy. While teachers' perspectives are important and add to the richness of data, observation is key in identifying practice change. Observational tools, which were used in 20% of the reviewed studies, are increasingly used in a range of international research to support accuracy and reliability of observations, identify effective characteristics of learning environments and pedagogy, and support and evaluate PLD interventions (Halle et al., 2010; Jerald, 2012). Reliable observations that are focused on the teaching practices the PLD is intended to support can be used to identify processes of

change related to an intervention, and represent a data collection strategy worthy of more attention in Aotearoa New Zealand ECE research.

**Who: *The Participants and Their Work Contexts***

Proportionately, kindergartens were over-represented in the PLD research: 43% of studies involved kindergartens, yet kindergartens represented just 14% of ECE services in 2019 (Ministry of Education, 2019d). This finding may indicate a need to conduct research within a more representative range of settings. However, while conducting research within a range of settings is important, so is addressing priority areas within Aotearoa New Zealand's diverse ECE sector.

In particular, culturally responsive PLD is essential to meet the needs of all teachers, children, and whānau (Timperley et al., 2007). Culturally responsive PLD includes PLD that strengthens the capacities of all teachers to work effectively with Māori and Pasifika learners and their families. Five percent of the studies involved Pacific immersion education and care services and 7% Māori immersion or kōhanga reo. These percentages of Pacific and Māori ECE contexts are low, given the importance of PLD that is responsive to the needs of Māori and Pacific teachers, learners, and communities (see Averill et al., 2020; Ministry of Education, 2018b). It remains critical to ensure there are Māori and Pacific research bases that can inform culturally situated PLD and respond to teachers, learners, and communities of Māori and Pasifika ECE services. In line with this, the Ministry's *Pacific Evidence Brief 2019* (Ministry of Education, 2019e) highlights the need, across all education sectors, for "studies specifically concerned with professional learning and development related to supporting Pacific learners, and addressing the increasing diversity among Pacific learners" (p. 48). To develop and deliver PLD focused on teaching approaches consistent with *Tapasā*, the Ministry of Education (n.d.-h) has budgeted 1.4 million dollars in operating costs over the 2022/23 financial year. The 5-year *Tapasā* PLD budget is for around 5 million dollars. These budgets encompass PLD intended for schools as well as ECE. *Tapasā* (Ministry of Education, 2018b) is a well-recognised framework to support cultural competencies of teachers of Pacific learners. It is concerning, however, that the Ministry of Education's current provision of PLD appears to be

trending towards online options with only limited facilitated support (e.g., professional development supports for the updated *Te Whāriki* and the social-emotional teaching resource, *He Māpuna te Tamaiti*). The trend to online PLD resource provision is not consistent with PLD approaches that research suggests will have a genuine impact on teachers' beliefs, skills, and practice to support culturally responsive teaching (cf. Alton-Lee, 2015; Mara & Burgess, 2007; Ministry of Education, 2019e; Spee et al., 2016; Timperley et al., 2007). If the *Tapasā* PLD is to meet the needs of a diverse range of teachers and have a genuine impact on pedagogy, PLD approaches that are job-embedded and more intensive than online resources and workshops must be considered.

Although 41% of the studies did not report the age of children, our findings suggest less research was conducted with teachers who taught children in the 0–2-year age bracket. This affirms an ongoing need, identified by Mitchell and Cubey (2003), for research to inform PLD that supports teachers in their work with infants and toddlers. Furthermore, there is a dearth of research focused on PLD that supports teachers' work with children with additional needs—a research gap also noted by Mitchell and Cubey (2003). Given the Ministry of Education's (2019a) objective to ensure all PLD will have a focus on the inclusion of children with disabilities or additional learning needs, there is a pressing need for national research in this area.

Most studies reported the type of service in which research was conducted but 47% did not report specific characteristics such as information about participants' teaching qualifications or experience, and information about children and community. Inconsistent reporting of information across the reviewed studies makes it difficult to describe who was involved in PLD research. A reason for inconsistencies in reporting is the diverse scope and intentions of the research and publications reviewed. Nonetheless, as Aotearoa New Zealand continues to build a research base that can inform our local PLD policy and provision, it will be important to know the sample characteristics, such as qualifications, experience, ethnicity, age, and work and community contexts of the participants.



### ***What: PLD Content***

The present study identified a wide range of topics and content within the PLD research. Topic and content is likely to be influenced by numerous factors, including policy; criteria for funding; new knowledge of child development and effective pedagogy; and updates in curriculum or teaching resources. Based on the reported outcomes, PLD content appeared to target shifts in teachers' knowledge and beliefs as well as actual teaching practice. A research focus on PLD content can generate evidence of which pedagogical approaches are most relevant to participants within diverse ECE services. In other words, PLD research can strengthen understanding of the teaching knowledge, skills and dispositions that are important to target through PLD in a variety of ECE settings. Moving beyond PLD content, it is also important to generate research evidence about effective (and ineffective) delivery of PLD in Aotearoa New Zealand's diverse ECE contexts. In both research and provision there is a pressing need to pay more attention to the PLD intervention. We will not know what worked if we do not know what we did.

### ***How: PLD Delivery and Facilitation***

To understand any educational intervention, it is critical to have information about the PLD delivery, including facilitation strategies or actions that were used to support participants' learning (NPDCI, 2008). Reflective of Mitchell and Cubey's (2003) characteristics of effective PLD, the current study identified that key facilitator roles included: involving participants in investigating pedagogy within their own settings; providing information about theory, content/topic, and practice; and supporting reflective conversations. However, specific information regarding what facilitators did was often difficult to find: 30% of studies provided no, or minimal, information regarding the PLD facilitator's actions. Within the 70% of studies that did describe the facilitator's actions, there were varying degrees of detail and clarity.

Only 28% of the studies provided a clear description of the training or supports the facilitator received. Yet, reporting of any training the facilitator has had (or has not had) related to the PLD content and approach, is critical if an intervention is to be understood—the same applies for

information about dose because without knowing the details of an intervention it is difficult to understand what may have affected participants' learning. Given the scope, intention and motivations of the reviewed studies, this is not a criticism of the extant research. Nonetheless, as Timperley et al. (2007) have already identified, future PLD studies would benefit from clear, detailed reporting of the PLD programme; this includes details of dose, facilitation, and the nature and extent of any training the facilitator has received to deliver the PLD. Taken together, our findings point to the need for adequate funding to support PLD research and development—funding for research that is clearly focused on PLD interventions, including development and delivery of PLD to support culturally responsive pedagogies and address the needs of teachers and learning communities.

**Coaching.** As we had hypothesised, coaching was not widely researched in Aotearoa New Zealand ECE contexts. When coaching was reported, definitions of the term were sometimes not provided, and definitions varied from one study to another. Inconsistent definitions are problematic because, when multifarious meanings are attributed to words, interpretations and understandings of research can be compromised. It is vital to develop shared understandings and to report definitions of terms, including mentoring and coaching. While it wasn't investigated in this review, "critical friend" is another term that may be subject to misunderstandings or varied interpretations. Moving forward, given the international evidence that supports coaching as a PLD approach (Brunsek et al., 2020; Elek & Page, 2019; Kraft et al., 2018) and the limited attention to coaching in Aotearoa New Zealand ECE, a research priority must be to investigate the effects and social validity (i.e., the relevance and worth) of coaching in our unique Aotearoa New Zealand ECE contexts.

### **Limitations and Delimitations**

This systematic review has limitations and delimitations that should be noted. First, although we utilised numerous processes to support accuracy of our results, the processes relied on coding-manual informed subjective judgements. Others using our procedure may not produce exactly the same results. One reason for this is the difficulty in extracting specific, categorical information from research literature that is predominantly descriptive. In particular, the many "blurred boundaries"

between PLD and research designs meant deciding whether studies fitted within our inclusion criteria was sometimes challenging. It is possible a different reviewer may have made different decisions about which studies to include, nonetheless, the process was checked through consensus and, like all decisions within the review, was supported by operational definitions. There is also the possibility that some eligible studies may not have been included in the review, although search procedures and criteria ensured that a wide net was cast over the literature.

Secondly, the nature of the research reviewed presented challenges. Specifically, we did not always have full or clear information about the *who* and *how* of PLD research, which limited what we could report about these characteristics. A final delimitation relates to our process of reviewing and reporting the characteristics of the literature largely in terms of descriptive statistics. Our review has not captured (nor was it intended to capture) the rich and valuable narratives and descriptions so prevalent in qualitative research.

## **Summary**

The ability to examine a body of research evidence has advanced in recent years. The present study employed procedures to conduct a systematic literature review informed by PRISMA standards and protocols (Moher et al., 2015). The systematic literature review has described Aotearoa New Zealand's ECE PLD research base by identifying key characteristics of the research. In using PRISMA protocols to examine a body of evidence, the present study found Aotearoa New Zealand ECE PLD research was characterised as a predominantly descriptive body of applied research, focused on helping teachers investigate pedagogy within their own ECE services. Convergence of researchers' and teachers' roles, and of research and PLD, was common. Reported outcomes were predominantly positive and more concerned with whether teachers' learning occurred, than how it occurred. Coaching was rarely investigated as a PLD strategy and, given the inconsistent definitions or lack of definitions, appears to be misunderstood in Aotearoa New Zealand's ECE sector.

To advance the evidence base, it will be useful to shift from a broad to a more detailed focus—from whether a PLD programme generally works to specific information on how, why, and under what conditions the PLD works. Future research would benefit from refined investigation and consistent reporting of specific features of PLD interventions, including dose, delivery, facilitation, and characteristics of the participants and their contexts. Using a framework, such as *who, what and how* when designing, implementing, and reporting PLD research has the potential to promote ECE PLD that is more likely to match facilitated professional learning experiences with teachers' knowledge, skills, dispositions, and desired outcomes. Although the Ministry of Education's *Early Learning Action Plan 2019-2029* (2019a) states that “[a]ll PLD will include a focus on identity, language and culture” (p. 25), it remains critical to ensure there is a Māori and Pacific research base to inform culturally responsive PLD. We suggest that positioning identity, language, and culture as the foundation of all PLD, more than simply as a focus, is an important consideration if teachers are to be supported to empower all children to learn. These suggestions do not discount the significance of the existing PLD research but highlight pathways forward to build a national research base that can more powerfully influence Ministry decisions around provision of PLD.

### **2.2.1 Contribution the Candidate Has Made to the Manuscript/Published Work**

As the first author of “Characteristics of Professional Development Research in the Aotearoa New Zealand Early Childhood Education Sector: A Systematic Review”, I designed and created the review protocols and resources, conducted the review, and analysed the data. My doctoral supervisors supported this research work throughout our monthly meetings, with guidance and advice and by being available to answer my questions. My primary doctoral supervisor, in particular, contributed expertise and guidance that enabled me to refine the review protocols, definitions, and coding forms. With the support of my primary supervisor, I trained a research assistant and worked with her to complete reliability testing and consensus coding procedures. The research assistant, Vicki Gifkins, made a significant contribution to the work, specifically through the process of consensus coding 75 studies and is, therefore, included on the authorship of this publication. I wrote

the manuscript and shared it with my supervisors and Vicki, inviting their input and feedback. I took the key, active role through the process of manuscript preparation and submission, inviting input from all co-authors before finalising the article.

### **2.3 Chapter Summary**

This chapter included a manuscript in submission, titled “Characteristics of Professional Development Research in the Aotearoa New Zealand Early Childhood Education Sector: A Systematic Literature Review.” The systematic literature review has addressed the need to better understand existing PLD research through research question 1) *What are the characteristics of PLD research in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?* This study represents the first description of the Aotearoa New Zealand ECE PLD research base through a systematic lens of *who, what* and *how*. By identifying characteristics of the research, the systematic literature review highlights potentialities to advance the ECE PLD evidence base.

The characteristics of Aotearoa New Zealand ECE PLD research were identified as predominantly descriptive and qualitative, characterised by a convergence of researchers’ and teachers’ roles, collaborative inquiries, positive outcomes based largely on teacher-report, and a focus on content with less attention to PLD processes. Coaching was rarely investigated within the body of research and there were variations in the ways coaching was defined or appeared to be understood. The review identified other research gaps, including limited research to inform culturally situated PLD, specifically to support Māori and Pasifika children, families and teachers. Findings also point to limited PLD research involving infant and toddler teachers.

One implication arising from the systematic literature review is the identified need for a PLD conceptual framework, incorporating consideration of *who, what* and *how* to support the design, implementation, and reporting of PLD research. Careful attention to the *who, what* and *how* of PLD can support more effective matching of facilitated professional learning experiences with teachers’ knowledge, skills, dispositions, and desired outcomes (Buisse et al., 2009; NPDCI, 2008).

The systematic literature review has highlighted a need for closer attention to PLD interventions, including documentation of exactly how PLD was delivered and what the outcomes were.

Understanding these details is essential in understanding relationships between the PLD and the outcomes.

Another implication arises from the confluence of PLD and research, which was common within the reviewed literature. Confluence of PLD and research is also seen within Ministry of Education PLD initiatives such as the Teacher-led Innovation Fund (Ministry of Education, 2018a, n.d.-i), which is focused on improving teaching practice through collaborative inquiry and innovation. Teacher inquiries can be described as practitioner research, often involving: data collection; questioning; developing theories; making and implementing plans; and gathering evidence to evaluate the impact of actions (Ministry of Education, 2020; Timperley et al., 2014). Some academic research approaches share similarities with teacher inquiry and forms of practitioner research (cf. Benade, 2015; Cardno, 2008). It is important, however, to differentiate practitioner research from academic research so as not to lose sight of the distinct goals and processes of each (Cardno, 2008). Goals of academic PLD research might include describing an applied PLD intervention, determining the effects of PLD on various aspects of teaching or in different teaching contexts, or investigating how PLD interventions might be applied, adapted, or improved to support teachers. Goals of practitioner research, like most forms of PLD, are likely to be firmly focused on improving teaching. Both academic and practitioner research contribute unique and complementary information to support evidence-informed PLD. Nonetheless, as Cardno (2008) states, “the goals of research and the goals of professional development might be in conflict when these activities are uncritically assumed to be synonymous” (p. 89). Thus, there is a need for careful consideration of the distinctions between PLD and research.

Positive outcomes predominated in the studies that were reviewed. A possible explanation for the almost exclusive success of reviewed studies is that the research projects were striving to meet PLD goals, rather than research goals. Emphasis on success was also identified as a feature of

Teacher-led Innovation Fund projects (Sinnema et al., 2018). As was noted by the Teacher-led Innovation Fund evaluators, exclusive emphasis on success is problematic and surprising because attention to failure is critically important in providing opportunities to identify and solve problems (Sinnema et al., 2018). Overall, the systematic literature review findings suggest that more clearly delineating PLD and academic research has the potential to promote better application of both.

The study of PLD research has also raised a number of questions: What value might be found in embracing a broader range of research methodologies in Aotearoa New Zealand ECE PLD research? What value could be found in changing the types of research questions that are asked? Is the ECE research community stuck in a polemic of qualitative versus quantitative research? Given the success of coaching internationally and within New Zealand's wider education sector, why does it receive such limited attention in Aotearoa New Zealand's ECE sector? As a published article in a New Zealand journal with open access, "Characteristics of Professional Development Research in the Aotearoa New Zealand Early Childhood Education Sector: A Systematic Literature Review" may promote discussion around questions like these.

## Chapter 3. A Survey of Teachers' Professional Learning and Development Experiences

### 3.1 Chapter Introduction

The second phase of the investigation sought to better understand provision of ECE PLD in Aotearoa New Zealand, by exploring teachers' reports of their recent PLD experiences. The aim of exploring teachers' PLD experiences, including their experiences of coaching, was accomplished through a national survey of early childhood teachers. A rationale for the survey is the limited information that is available about Aotearoa New Zealand ECE PLD, especially that which is provided through private contractors and may not be subject to evaluations and publicly available reporting. Teachers are valuable sources of information. This study of ECE PLD provision addressed research question 2) *What are the characteristics of PLD in Aotearoa New Zealand early childhood education, and how does coaching feature within the PLD approaches used?*

The article, "Supporting Teachers' Practice Through Professional Learning and Development: What's Happening in Aotearoa New Zealand Early Childhood Education?" is published in *Australasian Journal of Early Childhood (AJEC; <https://journals.sagepub.com/home/aec>)*. *AJEC's* rankings for 2020 are Q3 in Developmental and Educational Psychology and Q2 in Education. *AJEC* has an impact factor of 0.622. The journal's aims include the creation and dissemination of new knowledge that encourages critical and scholarly exchanges and that contributes to the lives, education, health, and wellbeing of young children. *AJEC* also aims to contribute to research, policy, or practice in early childhood contexts. "Supporting Teachers' Practice Through Professional Learning and Development: What's Happening in Aotearoa New Zealand Early Childhood Education?" was reviewed through *AJEC's* double-blind peer review process.



### **3.2 Supporting Teachers' Practice Through Professional Learning and Development: What's Happening in Aotearoa New Zealand Early Childhood Education?**

Clarke, L. R., McLaughlin, T. W., Aspden, K., & Riley, T. (2020). Supporting teachers' practice through professional learning and development: What's happening in New Zealand early childhood education? *Australasian Journal of Early Childhood*, 46(1), 66-79.  
<https://doi.org/10.1177/1836939120979063>

#### **Abstract**

Early childhood teachers' professional learning and development (PLD) is a significant factor in the provision of quality early childhood education (ECE), yet gaining a full picture of PLD in the Aotearoa New Zealand ECE context is problematic. Information about government-funded PLD programmes is available through evaluations, however, teachers access PLD from a range of providers, many of whom are not government-funded, nor subject to regular monitoring for quality. Teachers' reports, therefore, represent important sources of insight into PLD. We surveyed New Zealand early childhood teachers about their experiences of PLD, including topics, delivery, and facilitation. We analysed 345 responses. Workshops were the most commonly experienced PLD model. Many respondents had also experienced job-embedded support, but may not have experienced the types of facilitation strategies likely to prompt shifts in teaching practice. This article reports the survey results, examines implications, and discusses features of PLD that support shifts in teaching practice.

#### **Introduction**

"Professional development", "continued professional development" and "professional learning and development" are terms that describe learning processes intended to support teachers' practice. Professional development can be defined as facilitated in-service training experiences that are intended to support teachers' learning, and the application of that learning in practice (NPDCI, 2008). With this definition, professional development not only involves gaining knowledge or learning new skills, but also involves transferring knowledge to practice. In Aotearoa New Zealand's early childhood education (ECE) sector, the term professional learning and development (PLD) is

often used because the word “learning” indicates the importance of teachers constructing knowledge through active involvement in the PLD process (Cherrington & Thornton, 2013).

PLD comes in many forms, including workshops, webinars, and networking, from one-off events to in-depth and sustained support. It is useful to have a wide range of PLD delivery formats available, although it is also important to understand that different outcomes can be expected from the different ways PLD is delivered. For example, workshops are more likely to increase teachers’ awareness and knowledge of the topic, while more intensive and job-embedded PLD is needed to support successful application in the classroom (McCollum & Catlett, 1997). Matching the type of PLD to the intended outcomes is one way to support PLD that is suitable for purpose.

Throughout Aotearoa New Zealand, PLD is delivered in diverse ECE settings, with intentions of meeting many different outcomes for a range of teachers. A range of PLD delivery modes, styles, and topics can help meet the needs of a diverse sector (Cherrington & Thornton, 2015), however, such a range of options presents challenges in fully understanding provision and practice of PLD in the New Zealand ECE sector.

Understandings of PLD can be strengthened through the consideration of the *who*, *what* and *how* of PLD (Buysse et al., 2009; NPDCI, 2008; Snyder et al., 2012). *Who*, *what* and *how* are components of the National Professional Development Center on Inclusion’s (NPDCI; 2008) conceptual framework of professional development, which can be used to help understand PLD in different contexts, and can be applied to the creation, implementation or assessment of PLD programmes (Buysse et al., 2009). The *who* of PLD includes the diverse range of teachers who engage in PLD, as well as the contexts and services in which they work; *what* refers to PLD content, including focus on knowledge, skills, dispositions, intended outcomes, and teaching practices; and *how* refers to PLD approaches, such as how PLD is delivered and facilitated, and including the intensity or sustained nature of PLD (Buysse et al., 2009). *Who*, *what* and *how* are critical features in the design and evaluation of PLD (NPDCI, 2008; Siraj et al., 2019), however, there are complexities in the ways these features are understood and enacted. For example, considerations of *who* may be

focused on qualified teachers, yet the New Zealand ECE system relies on both qualified and unqualified staff to provide education and care for young children (Cherrington & Shuker, 2012).

Thus, PLD must recognise the diversity of the workforce, including prior training and experience, as well as complexities of systems and public policy (Barnett & Riley-Ayres, 2015).

## **Literature Review**

### ***Strengthening Teachers' Knowledge and Pedagogical Capability***

Numerous authors have proposed key characteristics of effective PLD (i.e., PLD that improves teaching quality to improve outcomes for children), with the caveat that what is effective also depends on what is being taught, to whom, and under what conditions. Drawing on the work of some of these authors, including Buysse et al. (2009), Dunst (2015), Mitchell and Cubey (2003), Siraj et al. (2018), Siraj et al. (2019) and Timperley et al. (2007), there is consensus that, to effectively strengthen pedagogical capability, PLD actively involves teachers in learning processes, and supports teachers to critically reflect on teaching practices, including relationships with children and families. This means effective PLD is often job-embedded and may involve teachers in the analysis of data from their own settings, which is especially important because unexpected data trends, or data that highlights discrepancies between perceived and actual practice, can inspire or provoke teachers to make pedagogical changes (Mitchell & Cubey, 2003; Timperley & Robinson, 2001). Raising teachers' awareness of their beliefs, thinking, and influence is another well-recognised component of effective PLD, since increased awareness of one's own belief systems can foster practice that is inclusive of, and effective for, children and families of diverse backgrounds (Bishop et al., 2014; OECD, 2017). Collaboration and networking, including teachers' engagement in professional learning communities, can contribute to PLD's effectiveness, especially when members have shared vision and values, clear purpose, and focus on teacher practice and related student outcomes (Cherrington, 2017; Cherrington & Loveridge, 2014; Cherrington & Thornton, 2015; OECD, 2017). On a cautionary note, Siraj et al. (2019) suggest networking has the potential to perpetuate poor practice, if the content shared and the delivery approach are not evidence-based or subject to standards of review

and validation or, as Timperley et al. (2007) identify, if a learning community does not have the leadership of a skilled and knowledgeable facilitator.

Increasingly, research attention has been paid to the active elements of PLD that support teachers' learning within a diverse education sector, and that address the transfer of teachers' knowledge to practice. For example, a body of research evidence now suggests transformation of practice can be fostered by PLD facilitation strategies associated with mentoring and coaching, including observing, providing feedback, and engaging in reflective conversations (Dunst, 2015; Egert et al., 2018; Kraft et al., 2018; Moreno et al., 2019; Zaslow et al., 2010). Coaching has been described as a way to support teachers in the complex task of using new knowledge or skills in the classroom (or ECE setting) in ways that meet the needs of students (Showers, 1982). It is important to note that coaching is not the same as mentoring. Mentoring is often thought of as holistic support in the context of a sustained professional relationship (Thornton, 2015), while coaching is more often described in terms of specified actions, such as partnership, job-embedded support, observation, feedback, and goal setting (Elek & Page, 2019; Snyder et al., 2015).

There is growing consensus on the key features of coaching that foster improvement in teaching practice, with evidence pointing to the importance of coaching practices that include: supportive coach-teacher partnership; focused observation; performance feedback; reflection; targeted support to help teachers set and achieve self-directed goals; and an alignment between the coaching programme and teachers' skills and characteristics (Dunst, 2015; Elek & Page, 2019; O'Keefe, 2017; Snyder et al., 2015). While there is considerable international research on coaching to support teachers, a recent systematic review of more than 50 ECE PLD research studies indicates coaching may not be widely researched or practised in New Zealand ECE contexts (Clarke et al., 2021).

### ***PLD in the New Zealand ECE Sector***

Aotearoa New Zealand has a diverse range of early childhood education (ECE) service types, including licensed service types such as kindergarten, home based, and early childhood education

and care (ECEC) services. In licensed services, at least 50% of the adults who care for and educate children must have a teaching qualification and be registered as a New Zealand teacher (Ministry of Education, n.d.-b), with some services, such as kindergartens, having 100% qualified teachers. ECEC teachers usually work in teams, comprising qualified and unqualified staff, with a head teacher or manager in a leadership role. Qualified teachers have completed an initial teacher education (ITE) programme, such as a three year undergraduate diploma, three to four year undergraduate degree, or a one year graduate diploma (Teaching Council New Zealand, n.d.). Unqualified staff include staff who work with children but do not have a formal teaching qualification, or who are working with children as they complete their ITE.

For New Zealand teachers who are qualified and registered, *Our Code: Our Standards* (Education Council, 2017) provides an expectation that teachers will “engage in professional learning and adaptively apply this learning in practice” (p. 18), and an expectation that teachers’ PLD will positively impact on students’ learning. While PLD is seen as one of the tools that teachers can use to foster quality teaching practices and improve learning outcomes for children, to achieve this in a diverse workforce it is essential that PLD fits the needs of all teachers (Cherrington & Shuker, 2012), including unqualified and qualified teachers (Cherrington & Thornton, 2013; Meade et al., 2012). If PLD is to be considered “a vital tool for teachers to strengthen pedagogy and capability” (Education Review Office, 2016, p. 45), it is critical for teachers to have access to PLD that can effectively support and promote quality teaching.

PLD that is effective for purpose is vital, however, teachers’ decisions to participate in PLD are unlikely to be based solely on the quality of the PLD or the needs of the teacher. A range of factors influence teachers’ participation choices, including government policy as a driver of the types of PLD available, funding models and cost, teachers’ workloads, the availability of relievers for teacher release time, and leadership (Cherrington & Thornton, 2013; Cherrington & Wansbrough, 2007; 2010). New Zealand has a variety of contractors and facilitators who provide PLD to the ECE sector, with some PLD programmes funded by the Ministry of Education and some contracted

privately (self-funded), through early childhood services or umbrella organisations (Cherrington, 2017). Current Ministry of Education-funded PLD programmes include Strengthening Early Learning Opportunities (SELO; Ministry of Education, n.d.-d), which targets services likely to meet the goal of improved participation in quality ECE for Māori, Pasifika, and for children from low socio-economic families. Other Ministry of Education-funded programmes include The Incredible Years Teacher (Ministry of Education, n.d.-g), Kāhui Ako/Communities of Learning (Ministry of Education, n.d.-j), PLD to support understanding and implementation of the updated *Te Whāriki* (Ministry of Education, n.d.-k, n.d.-l), and the Teacher-led Innovation Fund (Ministry of Education, n.d.-i).

In 2007, Cherrington and Wansbrough (2007) found that most New Zealand ECE teachers' PLD consisted of short courses or conferences. The predominance of short courses did not seem to have changed a great deal by 2017, when Cherrington noted "most non-MOE [Ministry of Education] funded PLD is provided through in-house programmes offered by umbrella organisations, short one-off seminars and workshops offered by private providers, or conferences" (2017, p. 56). It is important to note that Ministry of Education-funded PLD programmes are subject to regular evaluation (e.g., Cherrington et al., 2013; Wylie & Felgate, 2016a), while private providers or in-house PLD may not be evaluated for quality.

### **Rationale for the Survey**

Taken together, it is clear that PLD is important for improving teacher practice, yet little is known about the PLD experienced by Aotearoa New Zealand ECE teachers. Gaining an understanding of teachers' current PLD experiences can guide movement from the current state to stronger evidence-based PLD practices and expectations. To learn more about current PLD practices, and as a component of a larger doctoral research project, we surveyed ECE teachers to better understand their experiences of PLD. A key intention was to gather descriptive information, as a baseline for further investigation, through the research questions: Who engages in PLD? What PLD content/topics are teachers experiencing, how often, and why? How is PLD delivered and what facilitation strategies are used?

## **Ethics**

Survey responses were anonymous, and participants were provided detailed information about the survey and its purpose, in the email and throughout the survey. Participation was voluntary and participants could skip any questions they did not wish to answer. The nature of the questions and survey itself pose minimal risk to, or burden on, participants. Therefore, a low-risk university ethics notification was applied for and received.

## **Survey Design**

A survey was designed using the web-based survey platform, Qualtrics (<https://www.qualtrics.com>), and with the purpose of gathering descriptive information about five key aspects of PLD framed as questions (i.e., who engages in PLD, how often, and why, what topics are covered, and how is the PLD delivered?). A copy of the survey is available in Appendix 6. The survey was developed based on the five key questions, and on PLD literature, including Cherrington et al. (2013), Mitchell and Cubey (2003), Timperley et al. (2007). A key consideration in the survey design was the intention of gaining a clear, overall description of ECE teachers' PLD experiences, without putting undue burden on teachers. We sought to gain a description of experiences, rather than teachers' perspectives of their experiences. Thus, categorical survey questions were developed because they tend to be quick and easy to answer, and useful in providing descriptive information in areas of interest. Respondents could select answers from a number of given (pre-determined) options or categorise items, with items (such as facilitation strategies) and categories (such as often, sometimes or never) provided. For some questions respondents could select multiple items, and for some there was an option to enter text into an "other" category. There were 18 survey questions (less if respondents stated they had never participated in PLD), which were organised into three sections. The first set of questions asked respondents about their teaching or leadership roles; age ranges of the children they teach; geographical region; location; ethnicity; age; and teaching qualifications. In the second section, respondents were asked how often they engage in PLD; who funded their PLD; and which delivery modes of PLD they had experienced (e.g., isolated short term

workshops, series of workshops). The final set of questions asked which topics teachers had covered through PLD and which topics they would like to learn about; whether there had been any focus on a particular age group (e.g., infants and toddlers); and the types of facilitation strategies experienced (e.g., facilitator gave me reading material; facilitator observed my practice).

For the survey, PLD was defined as any facilitated training and learning opportunities that are intended to help teachers gain knowledge and use new skills. For the purposes of the survey, PLD had to involve a facilitator. Independent learning (such as personal reading or post-graduate study) and initial teacher training, such as a teaching degree, did not count as PLD.

The survey was piloted locally, with 14 teachers and/or academics in the early childhood education field. The survey was refined, based on feedback from the pilot, and distributed nationwide to services licensed as early childhood education and care (ECEC) services. ECEC services are teacher led services that typically run all day sessions for children from birth to school age (Ministry of Education, n.d.-b). Kindergartens, homebased services and kōhanga reo were not included in the survey sample. Services' contact details were sourced through the publicly available Early Childhood Services Directory (Education Counts, 2018), or any publicly available email details. The survey link was sent to 2,143 email addresses, with a request to those who received the email to distribute the survey to teachers. There were close to 2,700 ECEC services in New Zealand in 2019 (Education Counts, 2019). We cannot determine what percentage of these services received the survey link because some may have had multiple email addresses while others did not have email addresses available. Initial invitations to complete the survey were sent on 25 March 2019. Reminders were sent on 8 and 16 April, and 12 May 2019. The survey closed on 24 May 2019. Three hundred and twenty (320) complete responses, and 85 partial responses, were received. Of the 85 partial responses, 25 responses were over 70% complete and were included, making a total of 345 responses included in analysis. Responses placed in "other" categories were response-edited if they clearly fitted better in one of the pre-determined options – e.g., a response written as "teacher mostly" in the other category, was recategorised to the pre-determined category of "teacher." SPSS



version 25 was used to analyse the data, with the purpose of providing descriptive statistics. For some questions, percentage totals will equal more than 100% because respondents could select multiple answers.

## Findings

### *Who: The Survey Respondents*

Of the 345 ECEC teachers who answered the survey, 91% were qualified teachers with 61% in a formal leadership role. A small percentage (2%) were teachers in training, education support workers or teacher aides. Table 3.1 shows the number of respondents who taught children in various given age-ranges. Taken together, results indicate that 57% of respondents taught infants and toddlers (within the age range of 0-3 years), either in mixed-age or age-group settings. Forty percent of respondents taught children aged over 2 years, with no young infants or toddlers in the group.

**Table 3.1**

#### *Age Range of Children Taught*

Children's age-range	Respondents who work with each age group
	%
Mixed-age (about 0-6 years, in the same room)*	37
Infants (about 0-2 years)*	10
Infants and toddlers (about 0-3 years)*	6
Toddlers (about 1-3 years)*	4
Young children (about 2-6 years)	29
Young children (about 3-6 years)	11
Other (all ages as required; not working directly with children)	2
No response	2
Totals	101

*Note.*  $n = 345$ . Age groups marked with \* include infants and/or toddlers. The percentage sums to more than 100 because of rounding.

Teachers from throughout Aotearoa New Zealand responded to the survey, as shown in Table 3.2. Just under 72% of respondents identified as New Zealand European and 13% identified as Māori. There was a range of 27 other ethnicities, each with a small number of respondents. Fifty percent of respondents were between 40 and 60 years old.

**Table 3.2***Geographical Location of Participants Compared With Nationwide Population of ECEC Staff*

Geographical location	Our sample	Nationwide population of ECEC staff
	%	%
Auckland	30	37
Waikato	14	11
Canterbury	13	14
Wellington	10	10
Bay of Plenty	9	8
Hawke's Bay	5	4
Manawatu-Wanganui	4	5
Otago	3	4
Northland	2	3
Tasman	1	1
Nelson	1	1
Gisborne	1	1
Taranaki	1	2
Marlborough	<1	1
West Coast	<1	1
Southland	<1	2
Non-response	6	
Totals	100	105

*Note.* Sample  $n = 345$ . Nationwide the total number of ECEC teachers is 27,199. The percentage sums to more than 100 because of rounding.

Where possible, we have compared our sample with Aotearoa New Zealand's general population of ECEC teachers, to get a sense of representativeness. Using statistical data from Education Counts (2019), our sample is compared with the total number of ECEC staff in New Zealand, with the number of qualified ECEC teachers and, as shown in Table 3.2, the number of ECEC teachers in each geographical location: The 345 respondents represent just over 1% of ECEC teaching staff throughout Aotearoa New Zealand. Ninety one percent of respondents are qualified teachers, compared with 63% of the general population of ECEC teachers. We do not have data about the number of leaders in the general ECEC population, however, within our sample there appears to be a high proportion of respondents who are in formal leadership positions (65%).

Leadership positions included managers who teach children often (23%), managers who teach children occasionally, or not at all (23%), and other leadership roles such as head teacher, senior teacher and curriculum leader (19%). Those in a formal leadership position are likely to initially receive the email and survey link and, therefore, may be more likely to complete the survey. The demographics of our respondents, along with the sample size, need to be considered when interpreting the survey results.

### ***How Often: Frequency of PLD***

Seventy-two percent of respondents reported participation in PLD three or more times a year; 22% once or twice a year; and 3% less than once a year. Participation rates of greater than five times a year were more common for those respondents who were in a formal leadership position: 42% of the 223 respondents in leadership roles reported PLD participation more than five times a year, compared with 25% of the 107 respondents not in formal leadership.

### ***Why: Teachers' Decisions to Engage in PLD***

Decisions to take part in PLD were driven, for most respondents, by appraisal goals (68%), interest in the topic (60%), or ECEC services' goals or strategic plans (40%). Employer expectations (24%) and recommendations from other teachers (21%) played a part, but respondents were less likely to be influenced by advertising material (10%) or to make spur of the moment decisions (2%). Recommendations from the Education Review Office, availability, career goals, the desire to improve practice, and free PLD were other factors that influenced decisions to attend PLD (7% total). We asked who funded respondents' PLD: 82% of respondents indicated they had participated in PLD funded by their ECEC service; 22% reported personally self-funding some of their own PLD; and 38% reported participation in Ministry of Education-funded PLD.

### ***What: The Content of PLD***

As shown in Table 3.3, New Zealand's early childhood curriculum framework, *Te Whāriki* (Ministry of Education, 2017), was the most commonly experienced PLD topic (76%), probably reflecting the recent update of the curriculum framework and the provision of workshops and

webinars to support its implementation (Ministry of Education, n.d.-k, n.d.-l). Assessment, leadership, internal evaluation, Māori language and protocols, and social-emotional teaching were other commonly experienced topic areas. Thirty-five percent of respondents reported engaging in PLD focused on infants and toddlers.

**Table 3.3**

*Engagement in PLD Topic Areas*

Topic	Have covered the topic in PLD	Have not covered the topic but would like to	Topic not placed in either category/No-response
	%	%	%
<i>Te Whāriki</i>	76	7	17
Assessment	60	11	29
Leadership	59	13	28
Self-review/Internal evaluation	55	13	32
Te reo me ngā tikanga Māori	48	21	31
Social-emotional	47	20	33
Infants and toddlers	35	16	49
Cultural competency	30	26	44
Literacy	29	13	58
Transitions	29	17	54
Physical activity/movement	28	17	55
Regulations	26	18	56
Working with families	24	24	52
Continuity of learning	22	19	59
Mathematics	17	15	68
Health and nutrition	17	17	66
Exceptional learners	17	31	52
Sustainability or enviroschools	17	33	50
Music	16	16	68
Visual art	10	22	68
Science	7	19	74
Dance	6	20	74
STEM	3	20	77

Note. *n* = 345. There is a high no-response rate for some items.

We were interested to know whether infant and toddler teachers had attended PLD focused on infants and toddlers: 12% of respondents reported working with infants and/or toddlers (in either age-group or mixed age settings) and also reported participation in PLD on the topic of infants and toddlers. In other words, 21% of the 196 respondents who were infant and/or toddler teachers had attended PLD focused on infants and toddlers.

### How: Approaches to PLD

In terms of PLD delivery, isolated short-term workshops were reported as the most commonly experienced, with 86% indicating they had mostly or sometimes attended isolated workshops. As shown in Table 3.4, 60% of respondents reported mostly or sometimes experiencing PLD with facilitator support such as coaching, mentoring, or observation and feedback. Webinars, cluster groups (where teaching teams from different services work together), and facilitator engagement throughout PLD (such as through an inquiry or action research project) appear to be less commonly experienced. There was a high no-response rate for some of these items, so results should be interpreted with caution.

**Table 3.4**

#### *Modes of Professional Learning and Development Delivery*

Types of PLD experienced (over approximately the last two years)	Mostly	Sometimes	Never	No-response
	%	%	%	%
Isolated short-term workshops	69	17	2	12
Series of related workshops	22	34	14	30
PLD where the facilitator visits your centre to support your work with children (e.g., coaching, mentoring, or observation and feedback)	19	41	11	29
Webinar	14	20	9	57
Clustered PLD, where your teaching team has joined teams from other education services in a PLD programme	14	38	21	27
PLD when you are regularly engaged with the facilitator throughout the PLD (e.g., inquiry, communities of practice, action research where the facilitator is regularly involved)	13	28	21	38

Note. *n* = 345.

Facilitation strategies refer to how a PLD facilitator fosters participants' learning or skills, including the facilitator's role and actions. As shown in Table 3.5, respondents had experienced a range of facilitation strategies to support their professional learning, with provision of information (presentations or reading materials etc) and engagement in reflective discussion reported by many respondents.

**Table 3.5**

*Facilitation Strategies Experienced by Respondents*

PLD facilitation strategies	%
Presenting material/information (e.g., PowerPoint)	77
Giving me reading material	67
Engaging in reflective discussion with me	67
Showing video exemplars of other teachers using valued or effective teaching practices	52
Helping me decide what changes I could make to my teaching, or my team could make to our programme or environment, to better support children's learning	46
Supporting me to identify what's most important for the children I teach	42
Helping me set professional goals	42
Giving me feedback about what I could do differently	41
Giving me feedback about what I do well	39
Getting to know me	30
Observing or videoing my practice	24
Talking about the observations/video with me	23
Showing me what to do (e.g., modelling a specific teaching practice)	20
Making resources or helping me make resources	19
Working with me to analyse data (e.g., reviewing data about how a child initiates peer interactions)	16
Observing my practice again to see whether I have been able to make changes	15
Other (digital feedback through webinars, providing specific information)	1

*Note.*  $n = 345$ .

## Discussion

In describing Aotearoa New Zealand ECEC teachers' PLD experiences, our results demonstrate high rates of participation in isolated workshops. Given that isolated short-term workshops are considered largely ineffective in enabling shifts in teaching practice, it is of concern they are reported as the most commonly experienced PLD. To promote improved practice, it is critical teachers access PLD that offers more sustained and personalised support than that which is generally available through an isolated workshop (McCollum & Catlett, 1997; Showers, 1982).

Alongside modes of PLD delivery, PLD facilitation strategies will impact on outcomes for participants. For example, presenting material or providing readings can support theoretical and content knowledge; collaboration and exposure to different views can provoke critical reflection (Mitchell & Cubey, 2003). PLD facilitation strategies most experienced by our respondents were provision of information, such as through a presentation (77%) or reading material (67%) and engaging in reflective discussions with a facilitator (67%). Discussions with facilitators appeared to be focused on helping teachers reflect on their pedagogy, with 46% of respondents reporting that facilitators helped them decide what changes they might make to their teaching or programme to better support children's learning; 42% were supported to identify what was important for the children they teach; and 42% were supported to set professional goals.

PLD facilitation strategies that involve observation and feedback, involve teachers in analysing data in their own settings, and that occur in the context of a responsive, reciprocal partnership ("getting to know me") have been shown to be powerful ways to foster improvement in teaching practice (Elek & Page, 2019; Institute of Medicine and National Research Council, 2015; Kraft et al., 2018; Snyder et al., 2015). These facilitation strategies were less likely to be experienced by respondents, with only 30% of respondents reporting that their facilitator had got to know them; 16% had worked with a facilitator to analyse data (such as records of teacher-child interactions); 24% reported their facilitator had observed or videoed their practice and 23% reported having talked with a facilitator about the observed practice. Over half the respondents did, however, report

that a PLD facilitator had visited their ECEC service. These results suggest that teachers seem to be supported through facilitator visits to their ECEC settings and through reflective discussions.

However, many teachers did not report experiencing the types of support identified by research as being effective in helping transfer learning to practice.

Looking at previous evidence of PLD strengthening New Zealand early childhood teachers' practice, Cherrington et al.'s (2013) evaluation of Ministry of Education-funded ECE PLD indicated 96% of services reported being satisfied or very satisfied with PLD making a difference to children's learning, with qualitative evidence from ECE services and PLD facilitators also describing PLD shifting teaching practice in ways that enhanced children's learning. However, Cherrington et al. indicated that strengthening teaching practice to enhance children's learning was only an emerging focus for many teachers, who were still establishing foundational skills in reflective practice and assessment and documentation of learning. Time, leadership, and qualifications of teaching staff were identified as some factors that may have supported or impeded the enhancement of teaching practice through PLD (Cherrington et al., 2013). Meade et al. (2012) have previously highlighted a need for ECEC centres to "invest more in professional development in order to help their unqualified staff understand and use good practice" (p. 17). With only a small percentage of unqualified teaching staff answering our survey, our results provide little information about the experiences of unqualified staff. Identifying and considering the professional learning needs of a range of teaching staff, including unqualified staff, remains important.

Most respondents reported making goal-driven decisions about PLD participation, either in terms of their own goals (68%) or their services' goals or strategic plans (40%). Interest in the topic (60%) was another key reason for PLD participation. In utilising PLD to support teaching goals or strategic plans, it is important that teachers and leaders are critical consumers of PLD, which includes being informed about what to expect, and what not to expect, from different PLD experiences. Critically selecting PLD opportunities seems particularly relevant given that most of our respondents (82%) participated in organisation-provided or self-funded PLD, which may not be



subject to regular and systematic evaluation for effectiveness. Thirty-eight percent had participated in Ministry of Education-funded PLD, which is systematically evaluated.

While teachers appear to be engaging with a range of content and topic areas through their PLD, only 21% of respondents who reported working with infant and toddlers had attended PLD focused on infants and toddlers. Infancy and toddlerhood are times in the human life span when learning is most rapid, when foundations are built for future learning, and when effective learning occurs in the contexts of relationships and interactions with an attuned and skilled adult (Center on the Developing Child, 2008). Thus, it is vital infant and toddler teachers receive high quality PLD to support their work with these unique age-groups. The PLD experiences of infant and toddler teachers are worthy of further investigation, especially related to the specialised support these youngest children need.

### **Limitations**

It is important to consider this study's findings and implications in light of the research limitations. Surveys are a useful way to collect information, nonetheless, like all methods of data collection, a survey has limitations, particularly when used alone (Neuman, 2014). For example, the answers respondents provide are limited by what is or is not asked, by the nature of the questions, and by respondents' interpretations of the questions. We did not ask about the intensity or duration of PLD, for example how many hours of PLD teachers attended per year, so while PLD opportunities appear to be frequent for our respondents, our results do not provide information about the dose (frequency, intensity, and duration) of PLD. In this survey, there were some high non-response rates for items within questions, as is clear in Table 3.3. We acknowledge these limitations and have endeavoured to mitigate them through acknowledgement, and by considering the findings in light of extant research, rather than in isolation.

It is also important to consider the size and nature of the sample. While the responses of 345 teachers are important, the sample is relatively small, representing just over 1% of the wider ECEC teaching population in Aotearoa New Zealand.

## Summary

The survey provides a description of Aotearoa New Zealand ECEC teachers' PLD experiences and identifies a number of pathways worthy of consideration. Overall, results suggest a limited or restricted range in the way PLD is enacted. Similar to international trends, many teachers participate in one-off workshops, and may not experience many of the facilitation strategies identified by research as effective in supporting shifts in teaching practice. It is important that teachers have timely access to PLD that supports their goals, and that teachers and leaders are enabled to be critical consumers of PLD, positioned to make informed choices about their PLD related to the outcomes they seek. Overall, more attention is necessary to ensure that PLD is effective in shifting and strengthening teachers' practice within Aotearoa New Zealand's diverse ECE sector. If the intention of PLD is to improve teaching practice in ways that will promote positive outcomes for children, then *who*, *what* and *how*, as well as *why* and *how often*, are aspects of PLD worthy of more attention in the selection, enactment, and evaluation of PLD.

### **3.2.1 Contribution the Candidate Has Made to the Manuscript/Published Work**

As the first author of the manuscript, "Supporting Teachers' Practice Through Professional Learning and Development: What's Happening In New Zealand Early Childhood Education?" I developed and distributed the survey and analysed the results. My doctoral supervisors supported this research work throughout our monthly meetings, by guiding and advising and being available to answer my questions. I wrote the manuscript and shared it with my supervisors, inviting their input and feedback. I took the key, active role through the process of manuscript submission, correspondence, peer review, and editing. This included responding to peer reviewers, editing the work accordingly, and inviting input from my co-authors before finalising the article.

### **3.3 Chapter Summary**

This chapter included an article published in *Australasian Journal of Early Childhood (AJEC)*, describing a survey conducted to identify the PLD experiences of Aotearoa New Zealand ECE teachers. The survey sought to describe teachers' PLD experiences, addressing research question 1)

*What are the characteristics of PLD and PLD research in New Zealand early childhood education, and how does coaching feature within the PLD approaches used?* This survey has provided a description of 345 teachers' PLD experiences, helping to identify a baseline of current PLD provision.

The survey suggests a limited or restricted range of PLD is experienced by early childhood education and care teachers, with one-off workshops predominating. Findings suggest that teachers are supported through facilitator visits to their ECE settings and through reflective discussions but are less likely to experience the types of support identified by research as being effective in helping transfer learning to practice. Teachers appear to have limited experiences of the facilitation strategies that are commonly associated with coaching, including PLD that involves observation, feedback and analysis of data. Only 30% of the respondents felt that their PLD facilitator had gotten to know them. The survey also suggests that many infant and toddler teachers may not be participating in PLD specifically focused on infant and toddler pedagogy. Given the importance of quality teaching to support infants' and toddlers' wellbeing and learning (Center on the Developing Child, 2008), the PLD experiences of infant and toddler teachers are worthy of further investigation.

Key implications of the survey include a need to address the ongoing predominance of isolated workshops. The evidence is clear that isolated workshops may be effective in imparting information and building knowledge but are not likely to sustain shifts in teaching practice (McCollum & Catlett, 1997; Showers, 1982; Zaslow et al., 2010). Promoting shifts in teaching practice requires more sustained and personalised support than that which is generally available through an isolated workshop (Joyce & Showers, 1982; McCollum & Catlett, 1997; Showers, 1982). Sustained and personalised PLD that helps teachers transfer knowledge to practice is likely to include job-embedded, targeted support, a focus on explicit practices, and provision of feedback on teaching performance (Kraft et al., 2018; Zaslow et al., 2010). Again, consideration of *who*, *what* and *how* (as well as *why* and *how often*) have been identified as worthy of more attention in the selection and enactment of PLD.

## Chapter 4. Intervention Development

### 4.1 Chapter Introduction

Phase three, step one sought to develop a PLD intervention that incorporated workshops and practice-based coaching, with the intention of helping teachers foster toddlers' social-emotional learning. Because the PLD topic was social-emotional teaching for toddlers, the acronym SETT (social-emotional teaching for toddlers) is used when referring to the PLD intervention and associated resources. Intervention development involved the development of a framework of 30 teaching practices to support toddlers' social-emotional learning. Three workshops were designed, with a focus on the teaching practices within the framework and how they applied to the participants. Coaching resources, a coaching manual, an observation tool, and an observation manual were developed. A key rationale for the development of the SETT PLD intervention is the limited coaching research in Aotearoa New Zealand ECE, and the associated importance of developing an evidence-informed intervention that incorporates a coaching component.

This chapter begins with a description of practice-based coaching and how it was expressed within the design of the SETT PLD intervention. Two researcher-developed resources are described: the SETT coaching manual (Clarke & McLaughlin, 2020a) and the SETT observation administration manual and observation tool (Clarke & McLaughlin, 2020b). The processes of observation and practice-based coaching that were used within the SETT PLD intervention are outlined. Overall, this chapter provides an overview of the SETT PLD intervention development. Further information is provided in Chapter 5, which describes the implementation of the PLD intervention.

This chapter also includes a research note that describes the experience of developing and trialling the SETT observation tool. The research note has been published in *NZ International Research in Early Childhood Education Journal (NZIRECE)*. NZIRECE publishes research and theory that is related to young children and relevant to the Aotearoa New Zealand audience. NZIRECE defines a research note as "a description of an original research project, a description of part of an original project, or a reflective examination of some aspect of the research experience"

(<https://www.childforum.com/research/about-the-journal/20-instructions-for-authors.html>).

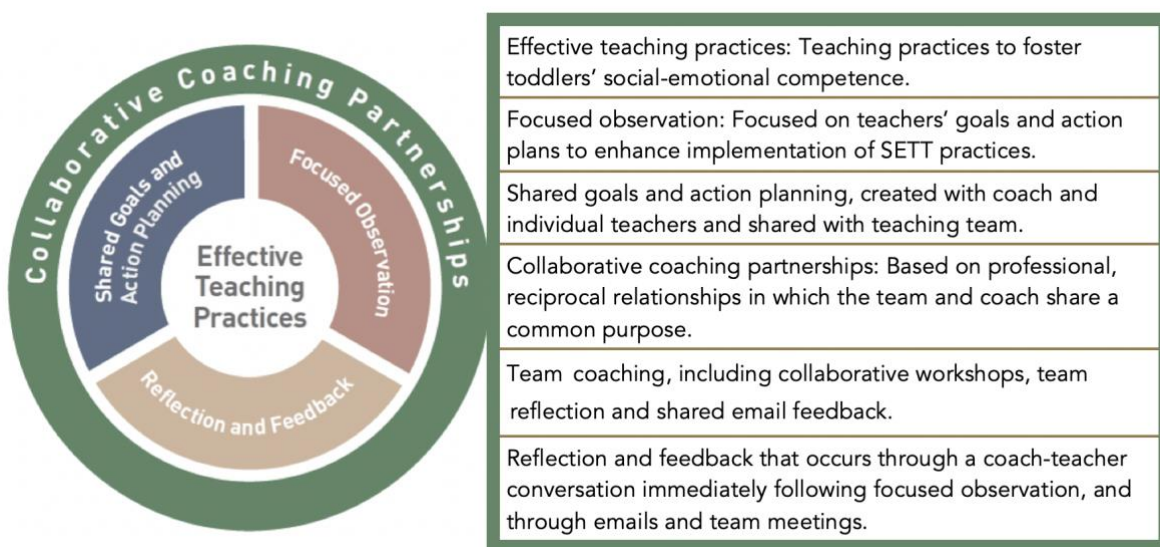
Research notes are useful in terms of disseminating initial, valuable ideas or to present preliminary findings. Thus, a research note was seen as an appropriate way to share the experience of refining an observation tool with a team of toddler teachers. “Supporting Teaching Practices to Foster Toddlers’ Emotional Literacy” underwent double blind peer review through *NZIRECE*.

#### 4.2 Practice-Based Coaching and Social-Emotional Teaching for Toddlers

Practice-based coaching is a cyclical coaching process involving shared goals, action planning, focused observation, reflection and feedback, within the context of collaborative coaching partnerships (Snyder et al., 2015). With permission, existing practice-based coaching protocols and materials, from the Embedded Instruction California project (Consultancy Contract University of Florida, 2015-2019), were modified for use with a New Zealand teaching team. Figure 4.1 shows the practice-based coaching cycle and how it was expressed in the SETT PLD intervention.

**Figure 4.1**

*Practice-Based Coaching and its Adaptation for Use in the SETT PLD Intervention<sup>1</sup>*



<sup>1</sup> This graphic is based on the practice-based coaching cycle for use with student research at Massey University with permission from Snyder, P. and the Embedded Instruction for Early Learning Project (2017) Practice-Based Coaching Protocols. Unpublished professional development series. Anita Zucker Center for Excellence in Early Childhood Studies. University of Florida, Gainesville, FL

As can be seen in Figure 4.1, practice-based coaching is centred on effective teaching practices. Practice-based coaching is a model of coaching that can be used to coach effective teaching practices within practically any topic area, as long as a set of specific teaching practices is identified. The SETT PLD intervention focused on effective teaching practices to foster toddlers' social-emotional learning. A framework of 30 teaching practices was created, with 10 teaching practices in each of the following three areas: 1) emotional literacy; 2) friendships and peer play; and 3) routines, expectations, and social problems. A set of counter practices was also developed. Counter practices are practices that do not support toddlers' social-emotional learning and that have the potential to be harmful. The SETT practices, which are consistent with guidelines in *Te Whāriki* (Ministry of Education, 2017) and *He Māpuna te Tamaiti* (Ministry of Education, 2019b), are outlined in Table 4.1.

**Table 4.1**

*SETT Teaching Practices*

Emotional literacy: The skills to recognise, understand, express and begin to regulate emotions				
Use a range of emotion words	Describe or model different emotions	Acknowledge and affirm emotions that toddlers might be feeling	Have everyday conversations about emotions	Encourage toddlers to communicate emotion words
Match toddlers' emotions with responsive body language and facial expressions	Remain calm and supportive when toddlers are upset or need support	Use experiences or resources to teach toddlers about emotions	Use, and make visible, emotion words in multiple languages	Use te reo Māori <sup>1</sup> for emotion words
Friendships and peer play: Interacting with others and playing with and alongside others				
Have responsive and affirming relationships with toddlers	Create an environment that encourages toddlers to explore, play and learn	Support toddlers to know and use their names and recognise themselves	Support toddlers to be aware of and interested in peers	Help toddlers to approach and be with peers
Help toddlers interact and play with peers appropriately	Use experiences or resources to teach toddlers about interacting with peers	Practise thoughtful and respectful interactions with other adults	Support toddlers to connect home, community, and centre	Have strong relationships with families

Routines, expectations, and social problems: Understanding expectations				
Make expectations visually evident through displays, photos etc	Communicate expectations calmly and positively	Use cues to help toddlers understand what is expected during transitions	Give toddlers feedback on their appropriate behaviours related to routines	Remain calm and close to toddlers in peer conflict situations
Support learning using a range of strategies during peer conflicts	Use experiences or resources to teach toddlers about expectations or social problem solving	Invite toddlers to engage in daily routines respectfully, upholding toddlers' mana <sup>2</sup>	Integrate tikanga Māori into the expectations and routines of the setting	Encourage and support toddlers' tuakana-teina <sup>3</sup> and ako <sup>4</sup> roles during routines and play
Counter Practices				
Teachers have no, or few, sustained interactions with a toddler, to the extent that the toddler may appear excluded or lacking in a close relationship with a teacher	Teachers rarely position themselves at toddlers' level to engage with toddlers	Teachers discount toddlers' emotions in ways that convey it is not OK to express that emotion (e.g., "Stop crying!")	Teachers separate toddlers from peers and discourage peer play or interactions, including removing toddlers or toys from peer conflict situations	Teachers assign blame, judge toddlers, or take punitive action

*Note.* <sup>1</sup>Te reo Māori is Māori language, one of New Zealand's official languages. <sup>2</sup>Mana can be described as the energy, esteem and life-force all children hold. <sup>3</sup>Tuakana-teina can loosely be described as an older toddler helping a younger toddler. <sup>4</sup>Ako is a reciprocal process of learning and teaching.

### 4.3 SETT Coaching Manual

To support the SETT PLD intervention, which combined workshops with practice-based coaching, a coaching manual was developed (Clarke & McLaughlin, 2020a). With permission, existing practice-based coaching materials were used to support development of the SETT coaching manual (Consultancy Contract University of Florida, 2015-2019). The SETT coaching manual outlines the structure of the SETT PLD intervention and provides information to support all aspects of the workshops and practice-based coaching. The manual provides detailed descriptions of each of the practice-based coaching components, including effective teaching practices, collaborative coaching partnerships, observation, and reflection and feedback. Coaching protocols and resources, including

coaching logs, are also incorporated in the SETT coaching manual. Protocols are detailed instructions to support each coaching component. The protocols help the coach to know what to say or do to support teachers' learning. The coaching logs mirror the protocols and are check lists that support implementation fidelity (the degree an intervention has been implemented as intended). Other resources include forms to support the teachers, such as strengths and needs assessments and forms to document goals and action plans. The SETT coaching manual also provides detailed information about the workshops, with workshop protocols, logs, support materials and resources included. Overall, the manual provides enough information and resources for replication of the SETT PLD intervention, nonetheless, coaches are required to complete practice-based coaching training before beginning to implement the intervention.

#### **4.4 SETT Observation Administration Manual and Observation Tool**

Practice-based coaching is supported by accurate, reliable observations of teachers' practice and, therefore, often involves the use of an observation tool. Observation tools are used in education for multiple purposes, including promoting accuracy and reliability of observations, identifying effective characteristics of learning environments and pedagogy, and supporting and evaluating professional development interventions (Halle et al., 2010). In the context of teachers' PLD, a fundamental purpose of an observation tool is to improve teaching practice. Observational data can be used to provide teachers with valid information and feedback to support their understanding of key practices and to identify areas for improvement (Jerald, 2012). Observation tools can be designed for purpose so that they reflect the precise practices to be coached and provide the information needed to give teachers performance feedback. Observational data can also be used to monitor the effects of coaching on teaching practice.

The SETT observation tool was developed to support the understanding, enactment, and coaching of the 30 social-emotional teaching practices, and to monitor, evaluate, and improve the effectiveness of coaching. Principles of measurement theory (Crocker & Algina, 1986; Crocker & Algina, 2008) underpinned the construction of the SETT observation tool. The tool itself is in the



form of observation sheets, which are part of the SETT observation administration manual (Clarke & McLaughlin, 2020b). Each set of observation sheets lists the 30 SETT teaching practices as observable items. Easy-to-follow guidelines for observation and documentation are included on each observation sheet. The sheets are designed to be placed on a clipboard and used to support the recording of teaching practices and environmental indicators throughout a 2 hour 40 minute observation period. Rating is completed immediately after each observation. The SETT observation administration manual (Clarke & McLaughlin, 2020b) is always referred to during rating. The observation manual contains detailed indicators to enable an observer to rate each of the 30 items; that is, to match each of the 30 items on the observation sheet with a score. There are three possible scores for each item: scores of 1, 2 or 3. Each of these scores is represented as follows: 1) *Entry*, representing no or minimal evidence of the indicator; 2) *Emerging*, representing moderate-to-strong evidence of the indicator, but not consistent use across the teaching team; and 3) *Embedded*, representing strong evidence of the indicator, applied consistently across the teaching team. The SETT counter practices are not rated but are documented in terms of whether they are observed. If counter practices are observed, the data are used for coaching purposes to support teachers to reflect on and change the counter practice/s. In addition to the detailed guidelines for conducting and rating observations, the SETT observation administration manual contains instructions for establishing interobserver agreement and for observer training. Establishing interobserver agreement involves quantitatively comparing the scores of two different observers (who observe the same episodes) to determine the level of agreement. The observer training involves becoming familiar with the manual, practising observing and rating, and achieving a level of over 80% interobserver agreement in three tests. Overall, the manual contains all the information and resources necessary to conduct a SETT observation. Nevertheless, before conducting observations, all observers are required to engage in SETT observer training.

The development of the SETT observation tool and manual involved trialling in ECE services that were not associated with the research. The next section of this chapter is a published research

note which describes a trial of the SETT observation tool, conducted as a voluntary PLD opportunity with a team of toddler teachers. The research note focuses on emotional literacy practices as well as processes of observation and feedback. The research note has been published in *NZ International Research in Early Childhood Education Journal* and underwent double-blind peer review.

#### **4.5 Supporting Teaching Practices to Foster Toddlers' Emotional Literacy**

Clarke, L. R., McLaughlin, T. W., Aspden, K. & Riley, T. (2021). Supporting teaching practices to foster toddlers' emotional literacy. *NZ International Research in Early Childhood Education Journal*, 23(1), 52-58.

#### **Abstract**

Many early childhood teachers will be familiar with the challenges toddlers face as they negotiate the social and emotional landscape of an early childhood setting. Toddlers' emotional literacy skills—including the abilities to recognise, understand, and appropriately express emotions—are just beginning to develop. To manage their emotional wellbeing, toddlers need support from their teachers, however, teachers may also need help to effectively foster toddlers' wellbeing and their developing emotional literacy. In this research note, we describe a professional development project focused on teaching practices to foster toddlers' emotional literacy. The professional development involved structured observation and feedback. A professional development approach involving structured observation and feedback may be useful in helping teachers develop a repertoire of teaching practices to foster toddlers' emotional learning.

#### **Fostering Toddlers' Emotional Literacy**

Emotional literacy refers to the skill set that enables us to recognise, understand, and express emotions in ways that are healthy for ourselves and others (Sharp, 2011). The foundations of emotional literacy are built during life's early years, in infancy and toddlerhood (Center on the Developing Child, 2004). When children are very young, their relationships and experiences, as well as the skills they learn, act as building blocks for the development of more complex skills. For example, in the context of supportive relationships, learning about a range of feelings and learning words for feelings will help toddlers (aged 1 to 3 years) learn to understand, communicate, and

appropriately express their emotions, and help them begin to recognise and relate to others' feelings.

Teaching emotional literacy, like all teaching, begins from a foundation of secure relationships with toddlers and whānau (McLaughlin et al., 2015; Ministry of Education, 2017). Teachers' capacities to work effectively are also strengthened by supportive teams and teaching environments (Dalli et al., 2011). Thus, relationships and the environment are often seen to be at the heart of learning and teaching in the early years, however, teaching practices are also a key factor in fostering children's learning (McLaughlin et al., 2015).

Teaching practices are the actions teachers take, including the words that are used, to support children's learning (McLaughlin et al., 2017). For example, in order to help toddlers understand their feelings, a teacher could use the teaching practice of commenting on emotions toddlers might be feeling, and communicating that it is okay to feel that way. A teacher might say, "Mia you look sad. It can be upsetting when Mummy leaves." There is value in identifying specific teaching practices that support children's learning because it enables us to consider the "how" of teaching; to take bigger ideas and break them down into specific, achievable goals and actions.

### **Identifying Teaching Practices for Supporting Toddlers' Social-Emotional Learning**

As a component of the first author's doctoral research, we have drawn from local and international sources to identify teaching practices that are considered to be valuable for supporting toddlers' social and emotional learning in Aotearoa New Zealand. The sources include *Te Whāriki* (Ministry of Education, 2017), *The Teaching Practices—Infant and Toddler List* (see Aspden et al., 2019), *He Māpuna te Tamaiti* (Ministry of Education, 2019b), *TPITOS* (Bigelow et al., 2019), *The Hikairo Schema* (Macfarlane et al., 2019), *Ngā Taonga Whakaako* (Williams et al., 2012), and *Incredible Teachers* (Webster-Stratton, 2012). We have organised the identified social-emotional teaching practices into three areas: 1) emotional literacy; 2) friendships and peer play; 3) routines, expectations, and social problems. The first area of practices, intended to support the development

of toddlers’ emotional literacy is the focus of this research note, and is outlined in Table 4.2.

Alongside each practice are examples of teachers’ words or actions that exemplify the practice.

**Table 4.2**

*Ten Ways to Support Toddlers’ Emotional Literacy*

Teaching practice	Teaching words or actions
Use a range of emotion words (i.e., words for positive and negative emotions) in interactions with toddlers.	Make a list of emotion words, then say them every day e.g., annoyed, pōuri (sad), excited, joyful ...
Describe or model what it is like to experience different emotions—use facial expressions, signs, gestures, or relate emotions to feelings in the body.	Talk about emotions when reading—be expressive e.g., “The dinosaur was so angry he felt like he might explode!” Describe emotional experiences e.g., “When I was scared my hair felt like it was standing on end!”
Acknowledge and affirm emotions that toddlers might be feeling—recognise and comment on toddlers’ emotions and communicate that it is OK to feel this way.	Acknowledge emotions toddlers are experiencing, and display empathy e.g., “You seem frustrated. I feel frustrated too when I cannot open my lunch box.”
Make emotions part of everyday talk.	Talk and reminisce about emotions on a regular basis e.g., “Mia is crying. I think she is sad” or “Remember when we felt scared in the thunderstorm?”
Encourage toddlers to communicate emotion words in multiple ways—support toddlers to use gestures and visuals and provide toddlers with feedback when they communicate feelings.	Use resources, such as emotion charts, to prompt discussions with toddlers. Encourage toddlers to point to pictures where emotions are expressed and to name and model emotions e.g., “Look at this picture—Ben looks sad. Can you make a sad face?”
Remain calm and supportive when toddlers are upset, distressed, or need support.	Use calm, supportive body language when interacting with an upset toddler. Stay attentive and responsive to toddlers’ cues.
Match toddlers’ emotions with exaggerated body language and facial expressions that show interest and responsiveness.	Mimic a toddler’s surprise with an exaggerated expression during a game such as Jack in the Box.
Implement experiences or use resources (e.g., books, puppets, pūrākau/stories, waiata, whakataukī/proverbs) to teach toddlers about recognising and expressing emotions.	Talk about the possible emotions of book characters e.g., “Ben looks angry because the dog chewed his shoes.” Sing songs such as “Happy and you Know it”, incorporating a range of emotion words, expressions, gestures or actions.
Make emotion words visible in multiple languages and use emotion words in a toddler’s home language.	Make displays or resources showing emotion words in multiple languages. Read and talk about the resources with toddlers.
Use te reo Māori (as well as other languages) for emotion words.	Display emotion cards or posters with te reo Māori emotion words e.g., the word harikoa beside a picture of a happy person. Read and talk about the resources with toddlers.

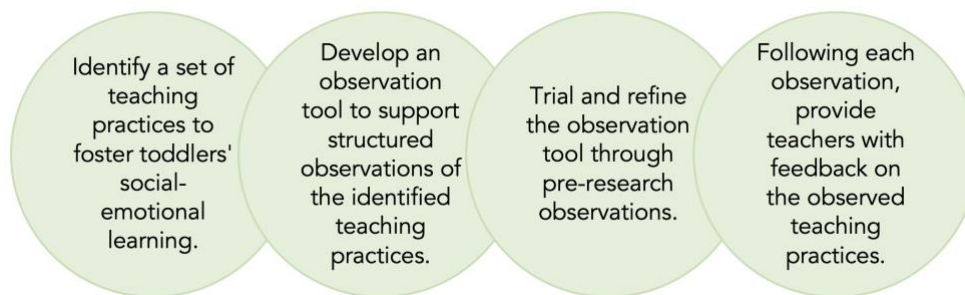
*Note.* Practices reprinted with permission from Clarke and McLaughlin (2020b). *SETT: Social-emotional teaching for toddlers: Observation administration manual*. Unpublished Manual.

## Using Observation and Feedback to Support Teachers

The identified social-emotional teaching practices have been used to develop a structured observation tool, intended to support a training and practice-based coaching (see Snyder et al., 2015) approach to teachers' professional learning and development (PLD). This research note describes a pre-research project in which the structured observation process was refined, as outlined in Figure 4.2.

### Figure 4.2

*The Process of Identifying Practices, Refining the Observation Tool, and Providing Feedback*



The project was conducted as a voluntary PLD opportunity with a team of teachers from an early education and care centre in Aotearoa New Zealand. The setting was the toddler room, which varied throughout the year in the number of toddlers enrolled. Approximately 10–15 toddlers attended over the January period, whereas during the remainder of the year about 30 toddlers attended. The teaching team consisted of six teachers (qualified and in-training), with ratios of at least 1 teacher to 5 toddlers. This 1:5 ratio was above Ministry of Education requirements at the time (New Zealand Government, 2008).

Over 8 weeks, from January to March 2020, two project assistants and the first author conducted seven, 2 to 3 hour structured observations of the teachers working with toddlers. These were pre-research observations, undertaken as part of the process of refining the observational tool. Typically, observations involved four of the six teachers because not all teachers were present during any given observation period.

Within 2 days of each observation, a centre leader was emailed two pages of written feedback on the teaching practices observed. The leader shared the feedback with the teaching team, making it available in the staffroom for teachers to read. The feedback was also used at staff meetings to support pedagogical and reflective discussions. The feedback described what the teachers were doing collectively and included examples of individual teacher's words or actions. Teaching practices that were used effectively were affirmed, and suggestions were provided for teaching practices to try.

The observations were not conducted in a way that was intended to intentionally measure change in teaching practice. However, the trajectory of feedback suggests some shifts in teaching practices occurred over time. For example, compare these excerpts of feedback provided to the teachers on January 17th, January 21st, and March 10th, 2020. Note that on January 17th, we heard only one emotion word but on March 10th we heard 13 different emotion words, many of which were repeated multiple times:

Excerpt from Feedback on 17/01/2020. ... a teacher used the emotion word "sad" to acknowledge a toddler's feelings ... Another key way to extend toddlers' understandings of emotions is to extend the range of emotion words used by teachers. This could occur at times when toddlers appear to be experiencing the emotion ("You look joyful when you jump!") or during planned experiences such as reading books ("The cow looks miserable") or in every day conversations ("I feel so happy when I play in the sandpit"). Naming and discussing a range of emotions might be strategies to consider as you extend your practice in this area.

Excerpt From Feedback on 21/01/2020. We heard the words "sad", "fright", "scare", "worry", and "hungry", which all described different ways toddlers might feel. Sometimes these words were used to describe how toddlers appeared to be feeling and other times they were used in conversations or songs—all of which are highly appropriate and useful occasions to use emotion words. As you continue to extend your practice in this area, think

about providing a rich vocabulary of emotion words that describe “positive” and “negative” feelings. Reading books about feelings, or talking about the possible feelings of characters in books, are useful ways to increase talk about feelings.

Excerpt From Feedback on 10/03/2020. Today we heard the words: “excited”, “merrily”, “happy”, “glad”, “calm”, “terrifying”, “fright”, “afraid”, “scary”, “sad”, “relax”, “angry” and “feeling better” ... We heard many of these words multiple times, and every teacher we observed said at least one emotion word. We heard everyday talk about emotions; e.g., “I would be angry too if someone ate my breakfast!” (the teacher was reading a book about a dinosaur whose breakfast had been gobbled up!) and “I think the music is making [toddler’s name] feel better.” We heard a song about feeling happy and we heard a teacher read a book that was full of emotion words. Her expressive face and gestures would have helped toddlers understand how the emotions she talked about looked, or how they might be expressed.

### **The Effects of Feedback**

While the observations reported here were not completed to examine the impact of observation and feedback on teachers’ practice, evidence of increased use of emotion words in the excerpts indicates that the feedback may have made a difference. This difference was also reflected in informal comments made by the teachers from the centre—teachers said that being observed and receiving feedback helped them focus on their practice and use the social-emotional teaching practices more often. This informal outcome from pre-research observations leads to the question: what difference can feedback on specific teaching practices make to early childhood teachers’ practice?

Existing research indicates performance feedback—feedback that specifically relates to observed and targeted teaching practice—is an effective coaching strategy that can improve outcomes for teachers and children (Elek & Page, 2019). Often, performance feedback is delivered by a coach or mentor during a face-to-face conversation and following an observation. Feedback can

also be written. The effect of written performance feedback (in conjunction with other training or workshops) has been investigated previously, with results suggesting that written feedback can be effective in supporting and strengthening teaching practice (Artman-Meeker & Hemmeter, 2012; Dennis & Horn, 2013).

How feedback is written is important. Key factors in supporting the effectiveness of teaching practice include: explaining the importance of observed behaviours; offering advice; being clear; and writing about specific behaviour or actions (Moreno et al., 2019). Other factors to consider when providing feedback include frequency, timing and length of feedback—all of which may impact on the effectiveness of the feedback (Moreno et al., 2019). Overall, what is clear in the literature is that descriptive, supportive, and constructive feedback on teaching practices can make a difference.

## **Conclusion**

We hope this research note will inspire teachers to apply emotional literacy teaching practices in the contexts of their responsive relationships with toddlers and whānau. We encourage teachers to discuss the processes of observation and feedback with colleagues, and to develop goals and action plans to expand the use of emotional literacy teaching practices. Our children will always need teachers who are skilled in ways that support their emotional literacy—this is one of the most important roles a teacher has.

### ***4.5.1 Contribution the Candidate Has Made to the Manuscript/Published Work***

As the first author of the research note, I developed and trialled the observation administration manual and tool, with support and expertise from my primary doctoral supervisor who worked with me to complete the first trial observation and make initial refinements to the SETT observation tool's design. From there, I took the key, active role in trialling and refining the observation tool, which included recruiting and training two research assistants. My work involved collaborating with an ECE service's leaders and teachers, engaging in regular observations of the teachers' work, and providing emailed feedback. The process of writing feedback was supported by the availability of existing practice-based coaching resources, including feedback and email



templates. I shared examples of emailed feedback with my first supervisor, who offered suggestions that helped me refine the feedback. At the end of the project, I facilitated an emotional literacy workshop for the teaching team, to thank them for their support. I wrote the research note, which was not a planned aspect of this thesis but was suggested by my primary doctoral supervisor as an interesting project to complete during Aotearoa New Zealand's 2020 Covid-19 lockdown (see Appendix 7). I shared the research note with my supervisors, inviting their input and feedback and editing the work accordingly. I took the key, active role through the process of manuscript submission, correspondence, peer reviewing, and editing.

#### **4.6 Chapter Summary**

This chapter overviewed the development of the SETT PLD intervention resources, describing how practice-based coaching was adapted. The framework of SETT teaching practices, the SETT coaching manual (Clarke & McLaughlin, 2020a), and the observation administration manual (Clarke & McLaughlin, 2020b) and tool were described. The intervention development was an essential step to address the research questions focused on delivery of the SETT PLD intervention: 2) *Is there a functional relation between workshops paired with practice-based coaching and a teaching team's implementation of social-emotional teaching practices?* and 3) *What are early childhood teachers' perspectives of practice-based coaching and specialised social-emotional teaching practices for toddlers?*

A research note, published in *NZIRECE Journal*, described the process of observation and written feedback that occurred while designing and trialling the SETT observation tool. The research note emphasises the importance of providing effective PLD focused on supporting children's emotional literacy, as a foundation for social-emotional learning and young children's emerging self-regulation skills. The research note also provided a means to disseminate information about structured observation and data-informed feedback as a PLD approach to support toddler teachers.

One implication that arises from the intervention development is the need for further research to address the question: What difference can feedback on specific teaching practices make

to early childhood teachers' practice? The survey of 345 early childhood teachers (Chapter 3) suggested many teachers do not experience observation and feedback as part of their PLD experiences, which indicates that investigating structured observation and data-informed feedback may be particularly important in Aotearoa New Zealand ECE.

## Chapter 5. Intervention Implementation

### 5.1 Chapter Introduction

Phase three, step two of the investigation sought to investigate the effects of the SETT PLD intervention on teaching practices to support toddlers' social-emotional learning. This was accomplished through a single-subject experiment to address research question 2) *Is there a functional relation between workshops paired with practice-based coaching and a teaching team's implementation of social-emotional teaching practices?* A rationale for the investigation of the SETT PLD intervention is the limited use of, and research into, coaching as a PLD approach in Aotearoa New Zealand ECE. Single-subject research was an appropriate and important design choice for this study. A key purpose of single-subject research is to demonstrate that an intervention reliably produces a particular change in behaviour (Kennedy, 2005). Thus, a single-subject design enabled analysis of the relationship between the SETT PLD intervention and teaching behaviours, using a rigorous methodological approach. Single-subject research designs are widely recognised as strong methodologies when there are few, or single, participants (Kennedy, 2005). As phase one of this multiphase investigation has highlighted, single-subject research is unusual in Aotearoa New Zealand ECE. Therefore, the application of a single-subject experiment in a New Zealand toddler room contributes a new perspective on the types of research designs that might be applied in Aotearoa New Zealand ECE contexts, and the types of research questions that might be asked.

This chapter contains a manuscript in preparation titled, "Coaching a Teaching Team to Foster Toddlers' Social-Emotional Learning: A Single-Subject Study," which describes the investigation of the SETT PLD intervention, through single-subject multiple-baseline research methods. The article also summarises the participating teachers' views of the PLD intervention, addressing research question 3) *What are early childhood teachers' perspectives of practice-based coaching and specialised social-emotional teaching practices for toddlers?* The teachers' perspectives are discussed in more detail in Chapter 6 since, for publication requirements, the article is truncated.

## **5.2 Coaching a Teaching Team to Foster Toddlers' Social-Emotional Learning: A Single-Subject Study**

Clarke, L. R., McLaughlin, T.W., Aspden, K., & Riley, T. (2021). *Coaching a Teaching Team to Foster Toddlers' Social-Emotional Learning: A Single-Subject Study*. [Manuscript in preparation]. Massey University.

### **Abstract**

The purpose of this study was to examine the effects of a coaching intervention on teaching practices to foster toddlers' social-emotional learning. A multiple-baseline across behaviours design was used to examine the effects of a 3-month practice-based coaching intervention. The intervention was delivered to a small team of teachers to foster toddlers' social-emotional learning, in three areas: 1) emotional literacy; 2) friendships and peer play; and 3) routines, expectations, and social problems. The results demonstrated a functional relation between the intervention and social-emotional teaching practices. Nine weeks after the intervention, despite a change in the teaching team, practice was sustained above baseline measurements for emotional literacy teaching practices. Teacher reports indicated that the intervention resulted in (teacher observed) changes in toddler behaviour and changes in teaching practice. This study addresses a pressing need to examine coaching as a professional development approach for Aotearoa New Zealand early childhood teachers.

### **Introduction**

#### ***Toddlers' Social-Emotional Learning and the Teacher's Role***

Social-emotional learning—including developing skills to understand and appropriately express emotions, to manage behaviours, and develop positive relationships—is a critical aspect of young children's learning (Institute of Medicine and National Research Council, 2015). Age appropriate social-emotional skills can provide a strong foundation for learning and success; conversely, poorly developed social-emotional skills may put children at risk of negative outcomes, including anti-social behaviour, conduct problems, and mental and physical health issues (Center on the Developing Child, 2012; Institute of Medicine and National Research Council, 2015). Given that

“many disorders can be prevented before they begin by providing access to developmentally appropriate, high-quality early care and education” (Center on the Developing Child, 2012, p. 4), teachers who work with toddlers (1- to 3-year-olds) are key resources for early intervention.

Evidence-based social-emotional teaching approaches, such as *Incredible Teachers* (Webster-Stratton, 2012) and the *Pyramid Model* (Fox et al., 2010), are grounded in relationships and recognise the importance of promoting children’s emotion knowledge, understanding, and expression, and of teaching children the skills they need to get along with others. Teachers can foster toddlers’ and young children’s social-emotional learning through skilled, relationship-focused caregiving, and by teaching social-emotional skills in the contexts of everyday activities, play, and interactions. Given the importance of developmentally appropriate and high-quality teaching to support very young children (Center on the Developing Child, 2012), it is critical that teachers who work with toddlers are supported to utilise effective social-emotional teaching practices. However, fostering toddlers’ social-emotional learning is a complex pedagogical task for which teachers, even those working in high quality settings, are likely to need effective training (Branson & Demchak, 2010; Hemmeter & Conroy, 2012).

### ***The Aotearoa New Zealand Context***

In Aotearoa New Zealand, all licensed services that provide education and care for toddlers are regulated by the Ministry of Education under a unified system (McLachlan, 2011), referred to in this article as early childhood education (ECE). ECE teachers work in teams, with the number of teachers in a team dependent on the number of children (group size), and the ratios required. Currently, the minimum required ratio for children 2 years old and over in ECE settings is 1:10 (New Zealand Government, 2008). All licensed ECE services are guided by the early childhood curriculum framework, *Te Whāriki* (Ministry of Education, 2017).

*Te Whāriki* (Ministry of Education, 2017) guides teachers to foster social-emotional learning in a range of ways, including providing comfortable and predictable caregiving practices, having consistent and realistic expectations, and supporting toddlers and young children to communicate,

express their feelings, and resolve peer conflicts (Ministry of Education, 2017). Grounded in the importance of relational teaching, *Te Whāriki* is influenced by a range of theories and research, including sociocultural theories, kaupapa Māori theory, neuroscience research, and national and international research of social-emotional learning (McLachlan, 2017).

New Zealand teachers are provided with further guidance on social-emotional teaching through a Ministry of Education (2019b) document called *He Māpuna te Tamaiti*. Online professional learning resources are available to support teachers' understanding of *He Māpuna te Tamaiti* and implementation of social-emotional teaching practices (Ministry of Education, n.d.-m). However, it is unlikely that online resources will be adequate in helping teachers make sustained improvements to their social-emotional teaching. Facilitated professional development in the form of in-service training is critical if teachers are to strengthen their practice in ways that will result in positive outcomes for all children in their care (Institute of Medicine and National Research Council, 2015).

### ***Professional Learning and Development***

In Aotearoa New Zealand, teachers' in-service training is often referred to as professional learning and development (PLD). PLD has been defined as facilitated support that enables teachers to strengthen their capabilities (Ministry of Education, n.d.-a). The Positive Behaviour for Learning (PB4L) initiative, adapted from Positive Behaviour Intervention Supports (PBIS; Ministry of Education, 2015) in the United States, provides New Zealand teachers and families with support to address challenging behaviour, foster positive behaviour, and improve outcomes for children (<https://pb4l.tki.org.nz/>). PB4L is focused largely on primary and secondary schooling, with some (fewer) initiatives in place for ECE teachers (Education Review Office, 2011). Actions intended to support ECE teachers include providing ECE services with access to the Incredible Years Teacher programme (Ministry of Education, n.d.-g). Incredible Years Teacher is designed to support teachers of children aged 3 to 8. Teachers who work with younger children may access Incredible Years Teacher but specialist training is not widely available for infant and toddler teachers.

Other PLD options are provided through a variety of contractors, however, ECE teachers' PLD opportunities vary (Cherrington, 2017; Clarke et al., 2020). A nationwide survey of 345 Aotearoa New Zealand ECE teachers indicated many teachers may not be receiving the types of PLD opportunities they need to foster toddlers' social-emotional learning: of the 196 teachers who reported working with infants and/or toddlers, only 21% had attended PLD focused on infants and toddlers (Clarke et al., 2020). Furthermore, one-off workshops (which are unlikely to result in change in teaching practice) were reported as the predominant PLD model (Clarke et al., 2020).

### ***Coaching***

While one-off workshops might be effective in imparting information, they are not likely to sustain shifts in teaching practice (Zaslow et al., 2010). Rather, key aspects of PLD that help teachers transfer knowledge to practice include job-embedded, targeted support, a focus on explicit practices, and provision of feedback on teaching performance (Kraft et al., 2018; Zaslow et al., 2010). These aspects are key components of coaching, a collaborative process in which a coach and teacher/s aim to improve teaching, utilising strategies such as observation, feedback, modelling, reflective conversations, and goal setting (Elek & Page, 2019; Kraft et al., 2018). Increasingly, specific models of coaching are described in research literature; one such evidence-based model is practice-based coaching (Snyder et al., 2015).

Features of practice-based coaching include a focus on effective teaching practices, which are coached through a collaborative and cyclical process of goal setting, action planning, focused observation, reflection, and performance feedback (Snyder et al., 2015). Numerous studies have demonstrated the effectiveness of practice-based coaching to support teachers' implementation of evidence-based teaching practices (e.g., Snyder et al., 2018; Snyder et al., 2015; Sutherland et al., 2018). However, research that investigates practice-based coaching in Aotearoa New Zealand contexts is only beginning to emerge (cf. Aiono, 2020), and coaching of any kind has seldom been investigated in Aotearoa New Zealand ECE services.

## **Study Purpose**

The current study sought to examine the effects of a PLD intervention, that included workshops and practice-based coaching, on teaching practices to foster toddlers' social-emotional learning. The PLD intervention, referred to as the SETT (social-emotional teaching for toddlers) intervention, was delivered to a teaching team over a 3-month period. The SETT PLD intervention focused on teaching practices in three areas of social-emotional teaching and learning: 1) emotional literacy; 2) friendships and peer play; and 3) routines, expectations, and social problems. These three areas were chosen because they align with areas of social-emotional teaching that Aotearoa New Zealand teachers will be familiar with through *Te Whāriki* (Ministry of Education, 2017) and *He Māpuna te Tamaiti* (Ministry of Education, 2019b). The study was conducted in the toddler room of an Aotearoa New Zealand ECE service, with the intention of answering two research questions:

1. Is there a functional relation between workshops paired with practice-based coaching and a teaching team's implementation of social-emotional teaching practices?
2. What are the participating teachers' perspectives of practice-based coaching and specialised social-emotional teaching practices for toddlers?

A single-subject multiple-baseline design was used to analyse the relationship between the SETT PLD intervention (independent variable) and the SETT teaching practices (dependent variable). The teaching practices were measured with the researcher-developed SETT observation tool. Single-subject design was appropriate for this study because it is recognised as a strong methodological approach when there are few, or single, participants (Kennedy, 2005). A key purpose of single-subject research is to demonstrate that an intervention reliably produces a particular change in behaviour (Kennedy, 2005).

## **Method**

### ***Participants and Setting***

Prior to recruitment, an ethics application was approved by Massey University Human Ethics Committee. Participant recruitment was based on geographical location, and the ECE service having



a toddler room and a positive Education Review Office report—the Education Review Office is the government agency responsible for evaluating and reporting the quality of education provided in New Zealand (<https://www.ero.govt.nz/>). Institutional permission was sought before ECE services and teachers were approached.

**Direct Participants.** The participating teaching team consisted of two qualified and registered ECE teachers. Just before the final multiple-baseline phase (sustainability data collection) one teacher left and another qualified, registered teacher joined the team.

The first teacher participated in all aspects of the study. She identified as Punjabi and had worked for 6 months as a qualified teacher, with 4 years' teaching experience previous to becoming qualified. She had been working with toddlers for 3 years and had no previous PLD experiences. The second teacher participated in all aspects of the study except for the sustainability data collection. She identified as Indian and had worked for 2 years as a qualified teacher, with 3 years' teaching experience prior to becoming qualified. She had been working with toddlers for 5 years. Her previous PLD experiences included a child development workshop, intentional teaching workshop and a leadership course with work-based assignments. The third teacher participated in the sustainability data collection phase only. She identified as Punjabi and had worked for 2 months as a qualified teacher, with 1.5 years teaching experience prior to becoming qualified. She had been working with toddlers for 1 month and had no previous PLD experiences.

**Indirect Participants.** During the study, there were up to 20 toddlers present in the toddler room, ranging in age from 2 to just over 3 years. None of the toddlers were receiving early intervention support. However, this is likely to reflect a lack of referral to early intervention services rather than a lack of need (Aspden et al., 2019). Throughout the study, children of families from New Zealand, China, India, and the Pacific Islands were enrolled in the toddler room. Around 35% of the families with children enrolled at the centre identified as Māori (i.e., indigenous culture of New Zealand).

**Setting.** The setting was an ECE service located in an urban area in Aotearoa New Zealand. The ECE service was licensed for 70 children, with three separate rooms for infants, toddlers, and young children. In the toddler room, there was a ratio of 1 teacher to 10 toddlers, which is the minimum required ratio. As is typical in a New Zealand ECE setting, most of the time toddlers were able to move indoors and outdoors to play. The ECE service had been rated by the Education Review Office as very-well placed to support children's learning.

**Research Team.** The researcher was a New Zealand European/Māori female, with a Master's degree in education, 7 years' experience as an ECE teacher, and experience as a senior tutor for a Graduate Diploma of Teaching in ECE. Supported by three doctoral supervisors, the researcher engaged in multiple roles, including primary observer and coach. To train for the role of coach, the researcher attended two practice-based coaching workshops (3 days training), provided by the first doctoral supervisor. To mitigate issues associated with the multiple roles, the researcher engaged in ongoing reflective practice and discussion with the doctoral supervision team. Furthermore, reliability and accuracy of observations were supported by the use of secondary observers in 38% of the observations. Two research assistants supported the project in the roles of secondary observers. Both assistants were New Zealand European females, one a speech language pathologist and the other a teacher aide.

#### ***The Independent Variable: The SETT PLD Intervention***

With permission, existing practice-based coaching materials were modified to ensure a cultural fit for use with Aotearoa New Zealand teaching teams working with toddlers. The SETT PLD intervention utilised key components of practice-based coaching, as described by Snyder et al. (2015). These components included a focus on effective teaching practices, collaborative coaching partnerships, shared goals and action planning, focused observation and reflection and feedback. A cultural adaption was the inclusion of whakawhanaungatanga. Whakawhanaungatanga is a process that recognises relationships are built through working together to strengthen every member of a group, acknowledging kinship and connections. Adaptations were also made to support a team-

centred approach. These included team workshops, use of observational data that measured the team’s teaching performance, and emailed team feedback. Table 5.1 summarises how practice-based coaching was expressed within the SETT PLD intervention and further describes key coaching components and activities.

**Table 5.1**

*Alignment of Practice-Based Coaching and the SETT PLD Intervention and Coaching Activities*

Practice-based coaching components	Use of practice-based coaching components within the SETT PLD intervention	Coaching activities and implementation fidelity
Collaborative coaching partnerships: coach and teacher collaboration to support practice implementation.	The coach and teaching team had a common purpose of strengthening teaching to foster toddlers’ social-emotional learning. Coaching partnerships recognised the team’s strengths, needs, preferences, and desired outcomes. Whakawhanaungatanga, a process of relationship building through shared experiences and working together, was integral to the coaching partnerships.	Welcome meeting: $n = 1$ ; length = 40 minutes; conducted via Zoom; team-centred. Coaching activities: Introductions and whakawhanaungatanga; discuss coaching processes and components; discuss desired outcomes; create calendar/timeline. Building collaborative coaching partnerships began in the welcome meeting and was ongoing.
Effective teaching practices: observable, evidence-based practices that have been made explicit for the coach and teachers.	The SETT PLD intervention was designed to support effective social-emotional teaching practices for toddlers, using New Zealand resources. The teaching team and coach focused on social-emotional teaching practices in three areas: emotional literacy; friendships and peer play; and routines, expectations, and social problems. The teaching team participated in workshops focused on pedagogy in the three areas. Observable, measurable teaching practices were targeted through training and coaching, and explicitly described in the SETT observation manual to support observations and coaching.	Topic workshops: $n = 3$ ; average length = 73 minutes, range 73–75 minutes; held once per month; team-centred. Coaching activities: Provide topic information; discuss teaching practices; ask teachers to share their knowledge and experiences; share and discuss observational data, including graphs generated from the SETT observation tool; collect strengths and needs assessments that have been completed by teachers.
Shared goals and action planning: goals are based on strengths and needs assessments and guide the development, implementation	For each topic, shared goals and action plans were created in the first debrief and reviewed in the subsequent three debriefs. Teachers’ strengths and needs assessments and the coach’s observations guided goal setting and action planning. Each action plan outlined steps, resources, and support necessary to achieve the goal, and a	Debriefs: $n = 23$ , average length = 16 minutes, range 12–20 minutes; individual except for one debrief which was conducted with both teachers due to dynamics on the day. Coaching activities: Goal setting or review; supportive and constructive feedback based on goal and action plan; reflective conversation; revisit

and review of action plans.	criterion to determine when the goal had been met. When topics changed, teachers were reminded to continue to implement previous target practices when a new goal was in progress.	action plan and preferred coaching strategies.
Focused observations: observations can include coaching supports and are guided by goals and action plans.	Focused observations were conducted for each teacher once a week. During the first observation for each of the three topic areas, the observation focused on SETT teaching practices related to the topic and teachers' strengths and needs. In subsequent observations, the coach recorded information about the use of teaching practices directly related to each teacher's goals and action plans.	Focused observation: <i>n</i> = 24, average length = 38 minutes, range 30–40 minutes; individual. Coaching activities: Observation and optional side-by-side coaching supports of environmental arrangement, modelling, verbal or gestural support, feedback, and video. Optional supports were provided at least once per topic, except for video, which occurred twice overall.
Reflection and feedback: reflections and feedback focus on information about implementation of the target teaching practices.	Reflective conversations and performance feedback related to the observed SETT practices were facilitated by the coach and occurred during debriefs and team reflection workshops. Debriefs occurred once a week for each teacher. Constructive feedback was not provided in (nor intended for) the first debrief for each topic. Team reflection workshops were held between the second and third coaching sessions for each topic.	Reflective conversations occurred in all but two debriefs. Supportive feedback was provided in every debrief. Constructive feedback was provided in all but one of the debriefs for which it was intended. Reflection workshops: <i>n</i> = 3, average length = 40 minutes, range 30–60 minutes; held once a month; team-centred. Coaching activities: Facilitate reflection, review teaching practices, coaching experiences, and observational data.

The SETT PLD intervention began with a welcome meeting, then followed a train–coach–train model. The first topic began with a workshop in which the teaching team explored teaching practices to support toddlers' emotional literacy. The workshop was followed by four sets of focused observations and debrief meetings (referred to as coaching sessions). Coaching sessions were provided to each teacher individually and occurred once a week for 4 weeks. Near the end of the 4 weeks, the teaching team engaged in a team reflection workshop to reflect on their use of emotional literacy teaching practices. The process was repeated to cover all three topic areas.

**Implementation Fidelity of the SETT PLD Intervention.** To support implementation fidelity of the PLD, logs were completed by the coach during or immediately after every workshop, focused observation, and debrief. The logs were detailed checklists of specific coach actions and activities (e.g., I opened the debrief meeting with a positive social greeting/I facilitated teacher reflection

about progress towards completing the action plan goals or steps /I provided supportive feedback about the SETT practices observed, etc). The logs supported the coach to implement the SETT PLD intervention as intended, and were used to document the degree that the intervention was enacted as intended (i.e., implementation fidelity). Implementation fidelity was above 86% for each of the coach actions and activities, except video feedback. Video feedback was utilised just 33% of the intended times, because one teacher did not feel comfortable being videoed. Coaching materials (including coaching logs, follow-up emails, and videos of two debrief meetings) were formally reviewed on two occasions by the first doctoral supervisor, who provided supportive and constructive feedback to the coach.

***The Dependent Variable: The Teaching Team’s Observed Practice***

The dependent variable was social-emotional teaching in the three areas of: 1) emotional literacy; 2) friendships and peer play; and 3) routines, expectations, and social problems. Teaching practices within these areas were observed by the researcher using the SETT observation tool, which was mapped to the key areas of practice. The tool was designed to provide ratings of the teaching team’s use of practices, given the team-based approach to ECE teaching in Aotearoa New Zealand. The SETT observation tool was developed for this research. As part of the development process the SETT observation tool was trialled in ECE settings not associated with the research. The SETT observation framework is summarised in Table 5.2.

**Table 5.2**

*The SETT Observation Framework: Social-Emotional Teaching Areas and Practices*

Emotional literacy: The skills to recognise, understand, express and begin to regulate emotions				
Use a range of emotion words	Describe or model different emotions	Acknowledge and affirm emotions that toddlers might be feeling	Have everyday conversations about emotions	Encourage toddlers to communicate emotion words
Match toddlers’ emotions with responsive body language and facial expressions	Remain calm and supportive when toddlers are upset or need support	Use experiences or resources to teach toddlers about emotions	Use, and make visible, emotion words in multiple languages	Use te reo Māori <sup>1</sup> for emotion words

Friendships and peer play: Interacting with others and playing with and alongside others				
Have responsive and affirming relationships with toddlers	Create an environment that encourages toddlers to explore, play and learn	Support toddlers to know and use their names and recognise themselves	Support toddlers to be aware of and interested in peers	Help toddlers to approach and be with peers
Help toddlers interact and play with peers appropriately	Use experiences or resources to teach toddlers about interacting with peers	Practise thoughtful and respectful interactions with other adults	Support toddlers to connect home, community, and centre	Demonstrate strong relationships with families
Routines, expectations, and social problems: Understanding the expectations and routines of the ECE setting, and solving social problems				
Make expectations visually evident through displays, photos etc	Communicate expectations calmly and positively	Use cues to help toddlers understand what is expected during transitions	Give toddlers feedback on their appropriate behaviours related to routines	Remain calm and close to toddlers in peer conflict situations
Support learning using a range of strategies during peer conflicts	Use experiences or resources to teach toddlers about expectations or social problem solving	Invite toddlers to engage in daily routines respectfully, upholding toddlers' mana <sup>2</sup>	Integrate Māori protocols/rituals into the expectations and routines of the setting	Encourage toddlers' tuakana-teina <sup>3</sup> and ako <sup>4</sup> roles during routines and play

Practices reprinted with permission from Clarke & McLaughlin (2020b). *SETT: Social-emotional teaching for toddlers: Observation administration manual*. Unpublished Manual.

*Note.* <sup>1</sup>Te reo Māori is Māori language, one of New Zealand's official languages. <sup>2</sup>Mana can be described as the energy and life-force all children hold. <sup>3</sup>Tuakana-teina can loosely be described as an older toddler helping a younger toddler. <sup>4</sup>Ako is a reciprocal process of learning and teaching.

As shown in Table 5.2, the SETT observation tool utilised a framework of 30 indicators, 10 in each of the three areas (or subscales). The 30 indicators have been operationalised in the SETT observation administration manual, with definitions and rating guides reflecting quality, frequency, and consistency of indicators. For example, for the indicator summarised as “use a range of emotion words”, rating included consideration of: number of emotion words used; whether words associated with both positive and negative feelings were used; how many teachers used emotion words; and how words were used—i.e., emotion words used in punitive comments would not be counted (e.g., “stop being sad—it is naughty”).

The SETT observation tool has a 3-point rating system:

1. *Entry*, representing no or minimal evidence of the indicator
2. *Emerging*, representing moderate-to-strong evidence of the indicator, but not consistent use across the teaching team
3. *Embedded*, representing strong evidence of the indicator, applied consistently across the teaching team.

Through these ratings, the SETT observation tool captures a team's practice, rather than the practice of individual teachers. The highest possible score for each of the three SETT subscales is 30 points. The lowest possible score is 10. Entry is represented by scores ranging from 10–16; emerging 17–23 and embedded 24–30. SETT observations are multi-focused and take 2 hours 40 minutes. In this study, teachers were observed for 2 hours and 40 minutes between around 8.30 a.m. to 11.30 a.m., with up to 30 minutes flexibility, dependent on the teachers' work shifts. This was a period that involved settling toddlers into the room, inside and outside play, care routines, and meals.

**Observer Training.** The two research assistants initially became familiar with the SETT observation administration manual (Clarke & McLaughlin, 2020b), including observation forms, indicators, and rating guides. Each assistant worked alongside the researcher to complete and rate five training observations, in an ECE service not associated with the research. Every training observation was followed by robust discussions about the SETT observations, scale, indicators, and any disagreements. The assistants then completed three test observations in which they observed and rated alongside the researcher, without support from the researcher. To become qualified to use the SETT observation tool as a secondary observer in the study, each assistant achieved over 80% interobserver agreement (IOA) in each of three tests. One assistant was naive to the stages of the intervention. The other had (inadvertently) become somewhat aware of the timeline.

**Interobserver Agreement.** Interobserver agreement (IOA) was collected for 38% of observations. Each assistant completed and rated four observations as a secondary observer. Immediately after every IOA assessment, the primary and secondary observer met to discuss any

discrepancies and to document the SETT observation tool ratings. As can be seen in Figure 5.1, the primary and secondary observers' ratings are plotted on the graphs to indicate IOA. Graphing both observers' ratings provides a visual comparison of ratings, presents IOA assessments at the same level of measurement that was used to test the research question and enables examination for observer drift and any influence of observer expectations or bias (Artman et al., 2012).

### ***Research Design***

A single-subject multiple-baseline across behaviours design was used. The teaching team's performance, as rated in each of the three subscales of the SETT observation tool, represented three teaching-team behaviours. A baseline of seven observation points was established before the SETT PLD intervention began with the topic of emotional literacy. Decisions to begin each of the three topic areas within the SETT PLD intervention were influenced by baseline stability, however, the practicalities of doing research in an applied setting also factored. Sustainability data were collected through two observations, 9 weeks after the SETT PLD intervention finished.

The multiple-baseline design met What Works Clearinghouse (WWC) standards (Kratochwill et al., 2010) through the following conditions: a) there were >6 phases; b) the independent variable was systematically manipulated and was introduced across three points in time; c) IOA was collected for >20% of the observations, and was collected during every phase; and d) there were >3 data points per phase for the baseline and intervention phases in each of the three areas (>3 meets evidence standards with reservations). The sustainability phase did not meet WWC conditions because there were only two observation points and the phase was subject to participant attrition.

### ***Interview: Participating Teachers' Perspectives***

Upon completion of the SETT PLD intervention, the teaching team was interviewed to explore the teachers' views of practice-based coaching and social-emotional teaching practices. Exploring teachers' perspectives of coaching interventions is critical if coaching is to be considered as a PLD approach in Aotearoa New Zealand's ECE sector. The hour long interview, involving the two teachers who had participated in coaching, was conducted by the researcher. The interview was



audio recorded, transcribed, and analysed. Analysis involved compiling, disassembling, reassembling, and interpreting (Castleberry & Nolen, 2018). The data were separated into phrases, sentences, and paragraphs which were then categorised and reassembled based on similarities, differences, common ideas, and patterns. Interpreting involved articulating categories, incorporating quotes, constructing meaning, making connections to literature, and revisiting the transcript to check that the interpretation represented what the teachers said, and that there was sufficient evidence to support the interpretation.

## **Results**

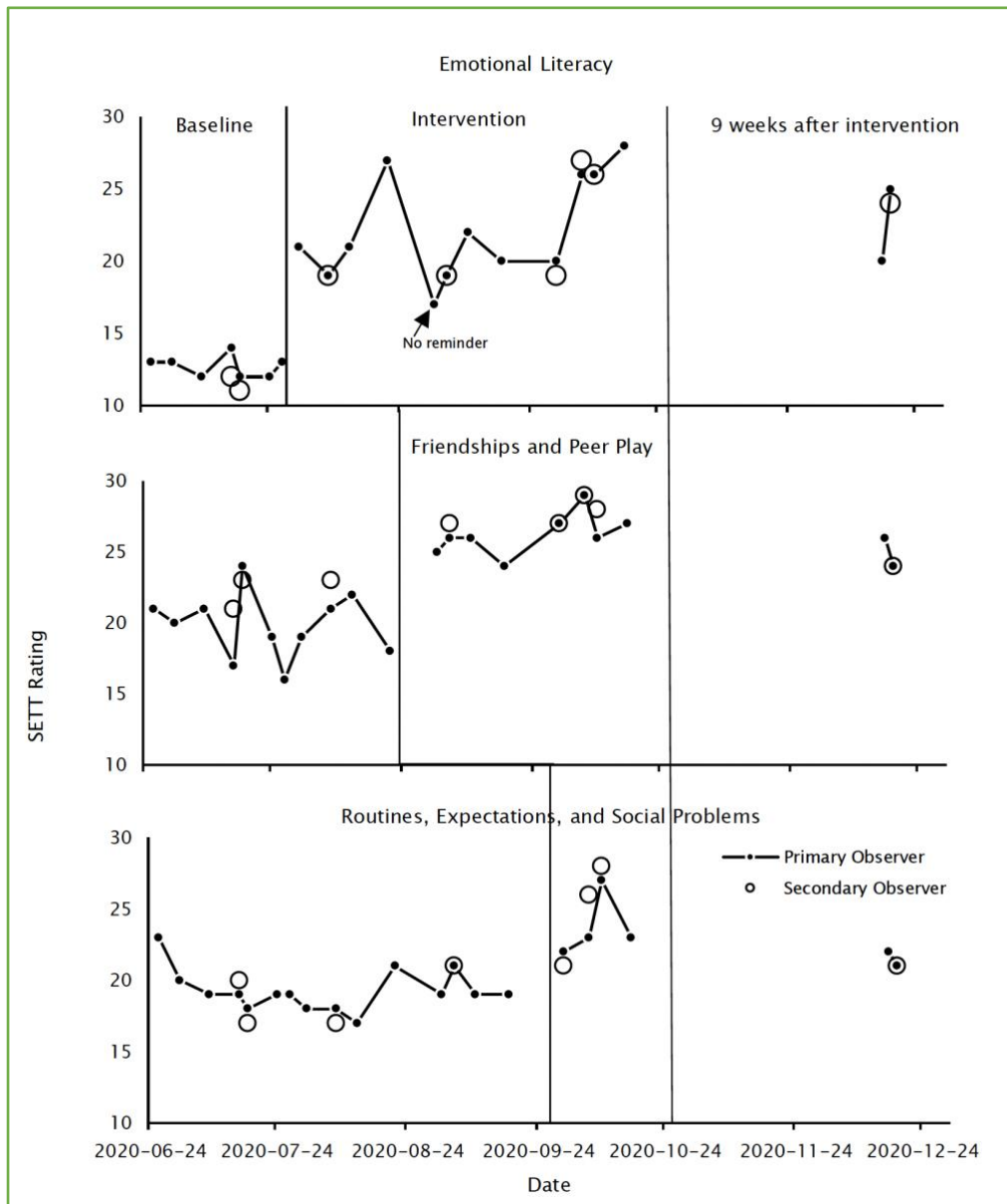
### ***Visual Analysis***

Figure 5.1 shows the teaching team's performance across the three subscales, as reflected through the SETT rating of 10 to 30 points. Each data point represents weekly (or close to weekly) SETT observation results. The first four data points in each intervention phase represent observations taken one day (or as close as possible to a day) after each coaching session. The sustainability phase began in the 9<sup>th</sup> week after SETT PLD intervention completion. We discuss results in terms of level, trend, variability, overlap, and consistency of data patterns across similar phases (see Kratochwill et al., 2010).

As can be seen in Figure 5.1, the emotional literacy baseline was stable with a range of 12 to 14 SETT points and a parallel trend, indicating the teaching team consistently demonstrated minimal evidence of the emotional literacy practices throughout baseline. Following the workshop and first coaching session, there was a level shift from 13 to 21 points and an upwards trend through the intervention phase. There were no baseline overlaps. This indicates emotional literacy teaching practices were strengthening throughout the SETT PLD intervention.

**Figure 5.1**

*Social-Emotional Teaching Practices Before, During, and 9 Weeks After the Intervention*



*Note.* The minimum SETT rating is 10 points. Each intervention phase involved one workshop and four coaching sessions, coinciding with each of the first four intervention data points. After coaching, reminders were provided throughout the emotional literacy and the friendships and peer play intervention phases, except on the point indicated.

There was a dip at the 5<sup>th</sup> data point in the emotional literacy intervention phase. The dip coincided with the end of the emotional literacy coaching sessions and the beginning of the friendships and peer play topic. In response, the SETT PLD intervention was adapted. Reminders were introduced to prompt teachers to continue to implement practices to foster toddlers'

emotional literacy as they began learning how to support friendships and peer play. The reminders were simple and short: during friendships and peer play debriefs, the coach prompted teachers with a request such as, “Remind me what your emotional-literacy goal was.” Reminders continued throughout the SETT PLD intervention.

The friendships and peer play baseline was variable with a range of 18 to 24 points and a slight downwards trend, suggesting teaching practices were moderate-to-strong, inconsistently applied across the teaching team, and not improving across baseline. Following the workshop and first friendships and peer play coaching session, there was a level shift from 18 to 25. Throughout the intervention phase, there was a slight upwards trend, and less variation than baseline. There was one overlap between baseline and intervention. Visual analysis indicates that, although baseline was somewhat variable, friendships and peer play teaching practices were becoming stronger and applied more consistently across the teaching team.

The routines, expectations, and social problems baseline ranged from 17 to 23 points. The initial data point was relatively high, nevertheless, the baseline was fairly stable and trended slightly downwards. There was a level shift from 19 to 22 points at intervention and a slight upwards trend across the intervention phase, indicating teaching practices strengthened in line with the workshop and first three coaching sessions, and dipped slightly with the fourth coaching session. Four overlaps occurred between baseline and intervention, suggesting a small effect.

In considering consistency of data across all three baseline phases, the emotional literacy baseline was lower and more stable than the other two. An explanation for the difference in stability is that at lower levels of practice, as reflected in the SETT observation tool’s entry ratings, teachers demonstrate no or minimal evidence of the indicators: if they can’t do it, they can’t do it—having a good or bad day would have little effect on a low SETT observation rating. However, emerging skills are more likely to be variable. At the SETT observation tool’s emerging level, teachers demonstrate moderate-to-strong evidence of an indicator not applied consistently across the teaching team—a good or bad day would be likely to influence a team’s practice when it is emerging. This is reflected

in the friendships and peer play baseline.

Across all three intervention phases there was an increase in level when workshops and coaching sessions were introduced and there were trends of improved practice throughout the intervention phases. Improved practice was maintained, where relevant, through the use of reminders. A functional relation was more clearly demonstrated in the emotional literacy area, nonetheless, there was sufficient evidence to identify a functional relation in all three areas. Although the intent of this study was not to report effect sizes, visual analysis indicated smaller magnitudes of effect for the friendships and peer play area and the routines, expectations, and social problems area.

Sustainability data were collected twice, 9 weeks after the final research observation. Because of staff changes, sustainability of practice was measured for one of the coached teachers and a new team member who had not participated in the coaching intervention. There were only two data points for each topic area in the sustainability phase. Thus, the sustainability data do not meet WWC standards for single case design, but have been reported with this caveat noted. Emotional literacy SETT observation ratings of 20 and 25 suggest that, 9 weeks after the intervention, the new teaching team was implementing teaching practices consistent with the SETT observation tool's emerging and embedded levels, compared with entry level throughout baseline. For the other two areas, sustainability ratings were similar to, or just slightly higher than, the associated baseline ratings.

### ***Participating Teachers' Perspectives of the Practice-Based Coaching Intervention***

During the interview, both teachers expressed that focusing on the toddler age group made the topic and content relevant, and practice-based coaching enabled them to not only learn about teaching practices but implement them, strengthening their teaching. The teachers described how the strengths and needs assessments and supportive, constructive, data-informed feedback helped them "identify what we are amazing at and what we could work on in the future."

A difficult aspect of the project, described by the teachers, was attending workshops in the evening when they were tired after a full day's work. They said this challenge was worth it based on the outcomes and their enjoyment of the practice-based coaching. The teachers did not engage with the emails that were sent, explaining that, given their busy schedules, reading emails would have to be done outside work hours.

The teachers said they saw "big" changes in their toddlers' social-emotional skills. They noticed the toddlers using more emotion words and talking about emotions. They felt there was an increase in toddlers' interest in and use of resources, such as books about emotions. They also noticed changes in the ways toddlers interacted with each other, saying: "They are actually talking about their problems and going to give each other an awhi [meaning to give care and support]. It's not only the older ones looking after the younger ones. They are all looking after each other ..."

When the teachers were asked: "How worthwhile has it been for you to engage in practice-based coaching to support your use of social-emotional teaching practices, considering the effort you have made, the time you've spent and the progress you have or have not seen in your toddlers?" they said that it was completely worthwhile.

Overall, teachers found the coaching content and process valuable, the results satisfactory and worth the effort and the intervention a good fit, despite challenges with workshop timing and emails.

## **Discussion**

This study sought to determine if there was a functional relation between workshops paired with practice-based coaching and a team's implementation of social-emotional teaching practices. Visual analysis provides sufficient evidence of a functional relation between the practice-based coaching intervention and the team's implementation of social-emotional teaching practices in three areas, but most convincingly in the area of emotional literacy.

Emotional literacy, also referred to as emotional competence, helps children express themselves in socially acceptable ways and respond appropriately to others, potentially creating

more rewarding social interactions and more opportunities to strengthen social-emotional competencies (Denham et al., 2012; Denham et al., 2003). Given the importance of toddlers' emotional learning as a foundation for positive social-emotional experiences, supporting children's emotional literacy should be a priority for ECE teachers. In the present study, emotional literacy teaching practices had the lowest baseline ratings, indicating the teachers required support in this area. Results demonstrated that the SETT PLD intervention provided support, effectively strengthening emotional literacy teaching practices. Teacher reports suggested that toddlers' emotion knowledge, emotion expression, and support of each other increased as a result.

The effect of the SETT PLD intervention was not as clearly demonstrated in the friendships and peer play area, nor in the area of routines, expectations, and social problems. The higher baselines and subtle level changes evident in these two areas indicate movement through the SETT observation tool's emerging to embedded levels. Within the SETT observation tool, emerging represents moderate-to-strong evidence of an indicator but not consistent use across the teaching team, while embedded represents strong evidence of an indicator, applied consistently across the teaching team. The shift from emerging to embedded is critically important because, with all members of a teaching team more consistently implementing effective social-emotional teaching practices, toddlers will experience greater consistency from their teachers, which in turn is likely to support toddlers' wellbeing and learning.

From the teachers' perspectives, practice-based coaching was a good fit for their context and was effective in supporting their teaching and toddlers' learning. The teachers felt that toddlers' social-emotional competence improved due to the intervention, however, the evidence of this comes from informal teacher observations; it is not known to what extent the toddlers' social-emotional skills developed, how much of this was related to the intervention, or if positive outcomes occurred for all toddlers. To further examine the effects of practice-based coaching on teaching practices, and to further explore teachers' perspectives, it will be useful to repeat this study in a range of Aotearoa New Zealand ECE services.

Due to a change in the teaching team, sustainability data represent the practices of one coached teacher and one teacher who received no coaching. While these data cannot indicate whether the coached team's practice was sustained, they provide insight into what was happening to support toddlers' learning 9 weeks after the SETT PLD intervention. This is relevant given that staff turn-over, while not ideal, is a reality. Overall, sustainability results are promising given the change in the teaching team. How to best support teachers to maintain post-coaching practice is an area worthy of further research attention. Some research suggests that simple post-coaching support, such as reminders to implement practices, may be effective in helping teachers successfully maintain their levels of practice (Hemmeter et al., 2015). The impact of the SETT PLD intervention's carry-over goals (which involved short, simple reminders from the coach) support the notion that brief reminders may be enough to help teachers maintain practice.

### **Limitations**

This study used a researcher-developed observation tool to measure the outcomes of the SETT PLD intervention, with the scale mapped to the content of the intervention. Researchers have noted that stronger outcomes may occur when intervention-aligned, researcher-developed measures are used to examine outcomes (cf. Brunsek et al., 2020). The SETT PLD intervention and observation tool content is aligned with widely accepted sources that reflect evidence-based practice and are relevant for toddler teachers in Aotearoa New Zealand. The SETT observation tool was trialled in ECE services not associated with the research, however, the observational tool has not undergone further development and testing for wider use. These aspects of the measurement should be considered when interpreting the results.

Due to staff changes, sustainability of practice was measured for one of the coached teachers and a new team member, who had not participated in the coaching intervention. There is no information about sustainability of practice for the team that was coached. Moreover, the collection of just two data points in the sustainability phase does not meet WWC standards (Kratochwill et al., 2010). Nonetheless, sustainability data provide some indication of the social-

emotional teaching practices the new team (with one teacher who had received coaching) was using 9 weeks after the SETT PLD intervention.

Another limitation is the researcher's multiple roles, which present a risk of bias. This limitation was difficult to avoid within the scope of the study, therefore, steps were taken to mitigate potential bias. As a researcher, coach and interviewer, the first author of this article engaged in reflexive questioning throughout the study (see Patton, 2015). In doing so, the researcher's positioning in each role was considered, alongside consideration of the teachers' perspectives and what might affect the teachers' actions, and the researcher's actions. For the researcher, a critical question was, "What do I want to achieve?" An aspiration was that the study could contribute to better teaching and learning environments for toddlers. This aspiration enabled the researcher to remain grounded in the importance of rigour and reliability of the research, with firm intentions to implement the SETT PLD intervention with fidelity, and to conduct the experiment with integrity.

In addition to the reflective stance taken by the researcher, the use of coaching protocols and logs to record implementation fidelity and the use of a second observer for 38% of data collection sessions, provided further support for the conduct of rigorous and reliable research. Relating to the interview, an independent interviewer may have been able to elicit more critical or different information from the participating teachers. However, the teachers requested that the interview be conducted by the researcher. They felt they could be honest and would be more comfortable talking with the researcher. It was important to honour the teachers' requests.

A final limitation is that the study involved a small teaching team. The results may not be relevant for larger teams. Replications of this SETT PLD intervention and single-subject design would strengthen the findings in terms of examining the effects of practice-based coaching in a range of settings, with a range of teams.



## **Implications**

The current study represents the first application of practice-based coaching in an Aotearoa New Zealand ECE service. The study contributes to a pool of research that has investigated coaching for toddler teachers (e.g., Conners-Burrow et al., 2016; Gardner-Neblett et al., 2020; Ottley et al., 2016; Ottley & Hanline, 2014; Page & Eadie, 2019), and coaching as a team-centred approach (e.g., Fettig & Artman-Meeker, 2016; Ottley et al., 2016). For the current study, practice-based coaching was adapted to embrace a team-centred approach by including forums for team discussions, sharing data that captured the team's practice, and providing emailed team feedback. Other team-centred coaching approaches have included peer coaching within a teaching group, whereas this study did not. The purpose of the team-centred coaching in this intervention was to “coach together” teachers who work together.

Finally, while evidence is clear that foundations for sound development are built early in life, many of the systems that could support the provision of high quality early education and care for the youngest children in our societies are still in a catch-up phase. This includes provision of appropriate PLD for toddler teachers, who need opportunities that will enable them to implement pedagogical approaches to foster toddlers' social-emotional learning, providing a foundation for success for all toddlers in their care. Systems and programmes intended to support teachers to manage challenging behaviour, such as Aotearoa New Zealand's PB4L programme, must also recognise the critical importance of intervening early by supporting the teachers of our youngest children. Given its unified ECE system and current policy initiatives, Aotearoa New Zealand is uniquely positioned to offer evidence-based PLD to effectively support teachers to foster toddlers' social-emotional learning. Practice-based coaching is worthy of further investigation in this context.

### ***5.2.1 Contribution the Candidate Has Made to the Manuscript/Published Work***

As the first author of the publication, “Coaching a Teaching Team to Foster Toddlers' Social-Emotional Learning: A Single-Subject Study”, I led all aspects of the research, including recruitment, working with ECE services and research assistants, and facilitating the PLD intervention and practice-

based coaching. This included coaching, managing the single-subject experiment, data collection, data management, and analysis. The coaching process was supported by the provision of existing practice-based coaching resources and protocols from the primary doctoral supervisor and with permission from practice-based coaching developer, Patricia Snyder. The primary doctoral supervisor provided guidance and expertise for practice-based coaching, which included facilitating practice-based coaching training and reviewing coaching procedures and videos. The doctoral supervision team supported all aspects of the research work by providing advice, engaging in reflective discussions, sharing their expertise, and answering questions. I took the key, active role through the process of manuscript submission, correspondence, peer review, editing, and inviting input from co-authors.

### **5.3 Chapter Summary**

This chapter included a manuscript in preparation, titled “Coaching a Teaching Team to Foster Toddlers’ Social-Emotional Learning: A Single-Subject Study.” The single-subject experiment, and the interview with the participating teachers, has addressed research question 2) *Is there a functional relation between workshops paired with practice-based coaching and a teaching team’s implementation of social-emotional teaching practices?* and has begun to answer research question 3) *What are early childhood teachers’ perspectives of practice-based coaching and specialised social-emotional teaching practices for toddlers?*

The study of the PLD intervention begins to address the identified issue of limited research into, and application of, coaching in Aotearoa New Zealand ECE contexts. The SETT PLD intervention represents the first application of practice-based coaching in an Aotearoa New Zealand early childhood education service, and a rare application of practice-based coaching outside of the United States. This makes the research particularly important both for New Zealand ECE and for practice-based coaching. The adaptations made to practice-based coaching in order to support an Aotearoa New Zealand teaching team highlight the potential to adapt practice-based coaching for diverse populations, in ways that are culturally and contextually appropriate. The effectiveness of the SETT

PLD intervention, which paired workshops with practice-based coaching, was evidenced through a single-subject experiment. As Chapter 2's systematic literature review has identified, single-subject research methods are not commonly used in Aotearoa New Zealand ECE contexts. Thus, the application of a single-subject experiment in a New Zealand toddler room is also important as a rare example of single-subject research in Aotearoa New Zealand ECE.

Another feature of the single-subject experiment and SETT PLD intervention was the use of coaching logs. Throughout the study, the coach's actions were recorded with detail to support the coaching and implementation fidelity of the SETT PLD intervention. Implementation fidelity is the degree an intervention or PLD programme has been delivered as intended (Dunst et al., 2013). For many of those involved with ECE teachers' PLD in Aotearoa New Zealand, structured and detailed recording of the coach's (or PLD facilitator's) role may seem a little unusual, possibly unnecessary. Yet, we cannot know what worked if we do not know what we did. The importance of providing clarity and detail around the PLD facilitator's role has been highlighted through the results of the systematic literature review, which suggest that in Aotearoa New Zealand ECE, PLD facilitators and their powerful acts of teaching tend to be made invisible. Thus "Coaching a Teaching Team to Foster Toddlers' Social-Emotional Learning: A Single-Subject Study" also exemplifies documentation of the facilitator's actions. Knowing whether an intervention has been implemented with fidelity strengthens understanding of what is effective, and what may need to be adapted to promote better outcomes for teachers and children.

Several implications arise from this phase of the research. Firstly, the evidence indicates that PLD interventions with a coaching component have the potential to improve social-emotional teaching in Aotearoa New Zealand toddler rooms. Therefore, it would be very worthwhile to study coaching further, in a range of ECE services. Maintenance of practice should also be investigated. Given that the participating ECE service was rated by the Education Review Office as very well placed to support children's learning, it is interesting that baseline emotional literacy teaching practices were low. Emotional literacy was the area of teaching that was most strengthened throughout the

coaching. While it is difficult to know from this small sample, it is possible that emotional literacy may be a particularly important teaching area to target in terms of PLD support, and further research. Another useful research focus would be the SETT PLD intervention resources. The SETT framework, observation tool, and observation and coaching manuals (Clarke & McLaughlin, 2020a; 2020b) could be further developed and refined as tools for future research or coaching provision. The observation tool would benefit from further research and development focused on structure of the social-emotional teaching framework, as well as refinement of the observation indicators and rating protocols. Further development would require trialling of the observation tool in a range of settings.

## **Chapter 6. Teachers' Perspectives of the SETT PLD Intervention and Teaching Practices**

### **6.1 Chapter Introduction**

Phase three, step three aimed to explore teachers' perspectives of the SETT PLD intervention and specialised social-emotional teaching practices for toddlers. This aim was accomplished through a post-intervention interview, which was analysed to identify key themes and answer the research question: *3) What are early childhood teachers' perspectives of practice-based coaching and specialised social-emotional teaching practices for toddlers?* A rationale for seeking teachers' perspectives is that, combined with the results of the single-subject experiment, the teachers' views provide richer information about the SETT PLD intervention, including whether coaching was the "right fit" for their professional learning and their ECE setting.

Some information about the teachers' views has been provided in the previous chapter. In this (unpublished) chapter more detailed information is provided. The chapter begins by discussing the rationale for exploring teachers' perspectives before the methods are described. The findings (i.e., the teachers' perspectives) are reported and are subsequently discussed in the next section of the chapter.

### **6.2 A Rationale for the Interview**

Although international evidence affirms the effectiveness of coaching in enhancing pedagogy, coaching does not appear to be widely researched, applied, nor understood as a PLD approach to support ECE teachers in Aotearoa New Zealand. The Ministry of Education (Ministry of Education, n.d.-n, final section) defines coaching as a skilled conversation that "encourages reflection and empowerment, and supports mokopuna [children] and adults to 'work it out for themselves.'" This is problematic because the Ministry's definition is inconsistent with much of the coaching literature in education and signals confusion over what coaching entails. Questions arise as to whether coaching is an acceptable, appropriate, and worthwhile approach in the unique and diverse contexts of Aotearoa New Zealand early childhood services.

The appropriateness of coaching as a PLD approach for ECE teachers in Aotearoa New Zealand relates to social validity—the social, cultural, and contextual relevance and worth of an intervention. Examining social validity includes consideration of the contextual and cultural value of an intervention’s goals; whether the results are satisfactory and worth the effort; and whether the intervention is ethically, culturally, financially and practically appropriate (Carter & Wheeler, 2019; Wolf, 1978). Understanding teachers’ perspectives is just one aspect of social validity, however, it is a key aspect. If coaching is to be understood and utilised in Aotearoa New Zealand’s ECE contexts, it is critical to explore teachers’ experiences and perspectives of coaching interventions.

### **6.3 Interview and Data Analysis**

As described in Chapter 5, following the SETT PLD intervention a 60 minute interview was conducted to explore teachers’ views of the coaching and the social-emotional teaching practices. The interview protocols and questions are available in Appendix 8. The two teachers who participated in the SETT PLD intervention were interviewed together. Intentions were to begin to examine social validity by exploring whether the teachers felt the content of the SETT PLD intervention was valuable; the results satisfactory and worth the effort; and whether practice-based coaching was a good fit in their context and for their work with toddlers. The teachers requested that the interview be conducted by the researcher, rather than an independent interviewer, saying they would feel more comfortable and able to be open and honest because they had developed a trusting relationship with the researcher.

The interview was audio recorded and transcribed by the researcher. Interview data were thematically analysed, using Nvivo (<https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home>). Thematic analysis involved compiling, disassembling, reassembling, and interpreting (Castleberry & Nolen, 2018). An inductive coding process was used, meaning ideas emerged from the data, rather than prior hypotheses or pre-conceived ideas (Braun & Clarke, 2006).

In the disassembling process, data were separated into phrases, sentences, and paragraphs then sorted into potential categories based on similarities, differences, and common or repeated

ideas. With the research question in view, notes were made about the categories, such as why they were important or how they addressed the research question. Initially, the repeated patterns in the data tended to simply reflect the interview questions that had been asked. The patterns evolved throughout a process of reconsidering what each category meant, merging or splitting categories and repeatedly revisiting the transcript until there were no more data to place in each category.

The next step, reassembling the data, involved further categorisation and the development of potential themes. A theme “captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set” (Braun & Clarke, 2006, p. 82). With the research question in view, the data were reassembled, initially by creating matrices, with sub-categories of data. Notes were made about what different quotes meant in relation to the research question, and what other information they provided. Eventually data were organised within five areas, which became the themes.

Interpreting involved articulating the themes, incorporating quotes, constructing meaning, and making connections to literature. Finally, the transcript was revisited, to check for consistency, i.e., does the interpretation fairly represent what the teachers said? (Mutch, 2013).

#### **6.4 Findings: What are Teachers’ Perspectives of Practice-Based Coaching and the Value of Specialised Social-Emotional Teaching Practices for Toddlers?**

Teachers felt the practice-based coaching enabled them to not only learn about social-emotional teaching practices but implement them, strengthening their teaching which, in turn, strengthened the toddlers’ social-emotional skills. Five key topic areas emerged:

1. specialised social-emotional teaching practices for toddlers
2. gaining knowledge and transferring it to practice
3. perceived impacts of practice-based coaching
4. challenges
5. coaching insights

Below, findings are reported within these five areas. The findings are then discussed further in the subsequent section.

#### ***6.4.1 Specialised Social-Emotional Teaching Practices for Toddlers***

Both teachers recognised that social-emotional skills are “something all toddlers need to learn because it is an age and stage thing ... it’s something they all need to work on because they just haven’t developed. They don’t have that understanding yet.” Two aspects of learning that toddlers found particularly challenging, according to the teachers, were expressing emotions and developing self-regulation: “You can’t sit here as a toddler teacher and tell me that your kids don’t struggle with self-regulating themselves or with emotions ... It is hard for kids as it is for adults to be able to tell people how you feel.”

The teachers valued the focus on the toddler age group. One teacher said: “PD (professional development) is challenging if it is for more general ages. A lot of PD’s when you learn about stuff it’s hard to implement it with the age group that you are working with.” Learning about practices specifically intended to support toddlers’ learning “was a bonus for us because we knew what to do with it for our kids.” Teachers would recommend the SETT practices and coaching to other toddler teachers because “there is not much [PLD] out there to help toddler teachers grow.”

#### ***6.4.2 Gaining Knowledge and Transferring it to Practice***

Teachers acknowledged that they had “learnt so much ... I have a lot more knowledge” but spoke more about the application of their knowledge to practice. Comparing practice-based coaching to some of the other professional learning she had experienced, one teacher said, “doing PD’s that are more general, you do learn from it and you learn a lot from it but you don’t know how to bring it back to your centre and actually implement it.” The specificity of the teaching practices was seen as a key to supporting the transfer of knowledge to practice. Both teachers felt that practice-based coaching was “more specific and that gave us that opportunity to be a lot more critical about our teaching practice ... more idea as to what we can do on the floor and how we can do it when you break it down into different teaching strategies compared to when it’s just



generalised—then we don't really know what to do with it." One teacher described the teaching practices this way: "If someone said to me [before the SETT PLD intervention], *what teaching practices do you have in the toddler room?* my mind is just going to go pppssssshhh [hand gesture of head exploding!]. I don't know what you are asking me for! But when we broke it down into all of these sets of teaching practices, we were able to nail it and able to realise, Ooohh! I am already doing that one!"

The teachers described how the strengths and needs assessments and supportive, constructive, data-informed feedback helped them "identify what we are amazing at and what we could work on in the future." Related to feedback, a teacher said: "When I am on the floor I don't realise half the things I do with the kids but it is nice having someone sitting down and saying you actually did this, this, this, and this. It gives us more of an idea that we are implementing it. Like you say name it to tame it, you are basically naming it for us. It is actually rewarding to know what we are actually doing instead of, you know, just talking to the kids."

#### **6.4.3 Perceived Impacts of Practice-Based Coaching**

In summarising the impact of practice-based coaching on their teaching, the teachers agreed:

We have definitely gotten a lot closer by supporting each other and giving feedback. It's been huge for our room ... We have come such a long way. I don't think we even had the idea that we would come this far with it. It's huge. Like sitting here looking back at the last 3 months, it's huge. I feel like definitely when we started it, I don't see why we will be talking about emotional literacy until I started doing it and then I realised I could so do that [teaching practice] a bit more and I could do this one a lot more and look I'm really good at this one so I could focus on this other one a bit more.

When asked about the most significant changes to their practice, teachers reflected on the impact of spending more time at toddlers' level: "As busy as our day gets—we get so caught up with routines and the environment and like getting the kids ready to go home that we actually forget to

take that one-on-one time with them and getting on their level. And it [i.e., receiving feedback about being at toddlers' level] was a bit hard because we think that we do it so much and we think that we know our kids and that they have such a good relationship with us but actually just sparing two minutes to actually sit down and have that conversation with them makes such a big difference ... we have those chats with them but the more you learn about what you can actually talk about when you are on their level and how you can extend their learning ... it is so much more different."

Both teachers agreed that learning and using more Māori language was a significant change. They felt their confidence had increased, they were speaking more te reo Māori and it was more visible in the environment. One teacher reflected she had begun to say emotion words in Punjabi and Mandarin, as well as te reo Māori and English. Teachers were excited about "big" changes in toddlers' social-emotional skills, saying:

I see the difference in our toddlers on the floor ... They know emotion words now. They can express their emotions. They can pick up on their emotions and they can talk about emotions. A lot more than before we had started. They are talking a lot more. They are using the resources around the room and it's because they are actually interested in talking about their emotions. You can see the older ones actually looking out for the younger ones. They are actually talking about their problems and going to give each other an *awhi* [care and support]. It's not only the older ones looking after the younger ones they are all looking after each other. [They know] if someone is caring for you then you have to care for them back. They do it a lot now. If someone is sad they will automatically go and give them a cuddle and say *are you alright?* You can just really see that the children have learnt a lot.

#### **6.4.4 Challenges**

The greatest challenge for teachers was to stay back after work to engage in the workshops. The workshops were conducted after teachers had already completed a full day's work and waited till the other teacher had finished her shift, most often feeling tired. Teachers said: "Some days we were yawning! And I would say, I'm sorry Linda, I'm quite blank at the moment." Despite this,

teachers still felt the workshops were useful and contributed to their learning. “Getting through” the workshops quickly was helpful.

Another challenge came up for the teachers before they began the project. When learning that the SETT PLD intervention would be for 3 months, teachers thought:

It is a very long time and at that point we were just trying to get back from COVID and we were trying to ... you’ve got your non-contact to sort out, your breaks to sort out, your ratios to sort out, and we were like we don’t have the time for this.

One teacher explained how she was encouraged by a professional leader to participate. Reflecting back, teachers agreed: “while the idea of engaging in a 3 month coaching intervention seemed daunting at first, once the process began and relationships were built, 3 months went by quickly” and “we didn’t feel it was hard work because we were actually enjoying it.” They talked about developing a mindset that was open to receiving feedback and to growing their teaching in ways that would help their toddlers develop and learn.

#### **6.4.5 Coaching Insights**

Teachers appreciated that the practice-based coaching (and research) process began with observations, saying “you did a few observations before you started any of this ... you got to know [us], which gave you an idea as to how you could approach it and what our strengths and priorities needed to be.” As well as creating a foundation for the PLD, the act of observing may have, in itself, strengthened teachers’ practice. Teachers reported being very aware of their practice when they were being observed, and described how they wanted to make a good impression: “We had to try our extra best. Extra best. You obviously try to be your best teacher but you always have your moment ...”

Support with resources and resource-making (e.g., books, emotion cards and wall displays) was important: “if you [the coach] hadn’t gotten us those cards/resources ... I feel like we would have been too busy to do it ourselves.” Teachers said the resources supported and motivated them to implement social-emotional teaching practices. Through reflective conversations and feedback,

teachers felt they were “celebrating our success even though we are still working on it ... we just knew that we had to just keep going at it.” Engaging with data (e.g., graphs) was viewed as highly motivational; teachers challenged themselves because “we wanted to get all the bars higher.” Another motivator was the toddlers’ increasing social-emotional competence: “We saw the positive outcomes in our children once we started implementing the different teaching strategies. We saw that in our kids. I guess that motivated us a bit more.”

Some components of this SETT PLD intervention were seen as less useful, specifically the team reflection workshops and emails. Teachers agreed:

The reflection workshops were nice because we got to have a little catch up on how we were doing with our bars [bar graphs] and whether we were nailing it and what we could do differently. I don’t really think it affected me much on the floor and what I could do on the floor. I think what was more useful for me was the coaching and the chats [debriefs].

It is worth noting that this particular team worked well together; they felt the reflection workshops could be useful for team building if that was necessary: “I guess that would depend on the team you were working with. If you did have a team that wasn’t on the same page or that was struggling a little bit then that catch up would definitely be necessary.” Discussing the emails, teachers agreed, “I’m just going to be completely honest. I didn’t really read heaps of them.” They explained that their schedules were busy. Reading emails would be something that they would have to do outside work hours.

## **6.5 Discussion**

The interview sought to identify the participating teachers’ perspectives of social-emotional teaching practices for toddlers and of practice-based coaching. The findings are discussed, first, in relation to social-emotional teaching practices, and then the coaching.

### ***6.5.1 Teachers’ Perspectives of Social-Emotional Teaching Practices for Toddlers***

Based on the teachers’ discussions during the interview, teaching practices to foster toddlers’ emotional learning and support their self-regulation were forefront in the teachers’

thoughts. Self-regulation is not about suppressing feelings or impulses; “self-regulation is about reducing the frequency and intensity of strong impulses by managing stress-load and recovery” (Shanker, 2016, para. 1). For toddlers, self-regulation would be likely to involve focusing attention for a short time; learning to change behaviours to achieve goals; beginning to name emotions; briefly delaying gratification; and being able to seek help when needed (Rosanbalm & Murray, 2017).

The teachers’ message: “You can’t sit here as a toddler teacher and tell me that your kids don’t struggle with self-regulating” is important. Toddlers’ abilities to self-regulate are just beginning to develop and are unstable—self-regulation is likely to diminish when toddlers are tired or stressed (Thompson, 2009). One of the key ways teachers can support toddlers’ developing self-regulation skills is through a process that is sometimes referred to as co-regulation (Murray et al., 2015). As Murray et al. (2015) explain, co-regulation occurs from the foundation of warm, responsive relationships and through teaching practices such as modelling, reminding, giving feedback, and providing opportunities for toddlers to practise their emerging skills in a safe and supportive environment. In the course of everyday routines and activities, teaching toddlers a range of social-emotional skills will help toddlers learn and practise the skills they need as their capacities to self-regulate increase. Predictable routines and consistency contribute to an environment where toddlers feel secure and are better able to use their self-regulation skills. In moments of heightened emotion, teachers can foster toddlers’ learning by remaining calm and supportive, providing a name for what the toddler may be feeling (frustrated, sad, excited etc) and by consistently accepting and affirming emotions (Gillespie, 2015; Rosanbalm & Murray, 2017). To support toddlers’ developing self-regulation, it is essential that teachers’ expectations of toddlers are age appropriate and that teachers have the knowledge and skills to foster toddlers’ social-emotional learning (Thompson, 2009).

The participating teachers noted it was easier to put specific, rather than general, ideas into practice. Aligning with the teachers’ comments, the Education Review Office (2013, 2018, 2019) indicate many teachers face ongoing challenges associated with transferring the broad nature of the

early childhood curriculum framework, *Te Whāriki*, into practice, including in terms of knowing and implementing a range of teaching strategies to promote learning. Identifying and naming teaching practices is a powerful way to support teachers in their understandings, articulation and enactment of pedagogy (McLaughlin et al., 2017; McLaughlin et al., 2015). Increasing understanding of the importance of specific teaching practices is reflected in the resource *He Māpuna te Tamaiti* (Ministry of Education, 2019b), which describes key strategies teachers can use to support children’s learning. Moreover, specific teaching practices are highlighted within recently developed frameworks (see McLaughlin et al., 2017; McLaughlin et al., 2015) that comprise “teacher-validated list[s] of teaching practices intended to help New Zealand teachers identify and articulate the teaching practice aspect of their pedagogy, consistent with *Te Whāriki*” (McLaughlin et al., 2015, p. 32). Making evidence-based teaching practices visible through resources like these is an important step; effective PLD opportunities are also necessary if teaching practices are to be skilfully implemented.

### **6.5.2 Teachers’ Perspectives of Coaching**

As the participating teachers noted, PLD specifically focused on the specialist skills required to support toddlers’ learning may not be widely available for Aotearoa New Zealand teachers (Clarke et al., 2020). Yet, toddlerhood is a unique time in the human life span when foundations for sound development can be fostered through high quality education and care (see Center on the Developing Child, 2008, 2009; Dalli et al., 2011). The provision of effective and relevant PLD is critically important in providing high quality education and care experiences for toddlers.

Coaching was viewed positively by the teachers; an outcome that is reflected in previous studies identifying teachers’ views of coaching (e.g., Aiono, 2020; Shannon et al., 2015). According to the participating teachers, changes in their teaching were fostered by a range of coaching strategies, including the provision of feedback and the accountability related to being observed, as well as the environmental reinforcer of changes in toddlers’ behaviours. The teachers’ views parallel with findings from Shannon et al. (2015), who found that networks of coaching support and

accountability, as well as environmental reinforcers, were key factors in the successful implementation of teaching practices.

In the present study, the teachers felt data-informed feedback was highly effective in enhancing their practice. The coach's observations and support made data accessible to the teachers. Teachers were helped to use data to inform their reflections and goal setting, which meant that data could be utilised as catalysts for change. As McLaughlin et al. (2020) point out, the use of data can be a powerful tool to support teaching and learning, however, "data can also be overwhelming or underused if teachers and leaders do not have adequate systems, supports, or mindsets to facilitate effective data use" (p. 1). Thus, in the present study, the role of the coach appears to have been key in the effective use of data.

As well as generating data, the act of observing may have strengthened the participating teachers' practice. Teachers reported being very aware of their practice when they were being observed, and described how they wanted to make a good impression. This accountability for implementation (cf. Shannon et al., 2015) is useful because the more often practices are implemented, the more they are likely to become embedded into everyday teaching. Observational measurement tools may not be widely used in Aotearoa New Zealand contexts, yet, accurate observations of teaching practice provide a degree of accountability, and can be used to provide teachers with valid information and feedback to support their understanding of teaching practices and to identify areas for improvement (Jerald, 2012).

Teachers said a significant change they made was being at toddlers' level more often. While being positioned at toddlers' level is not a listed practice in the SETT PLD intervention, it is an important aspect of many of the practices. For example, engaging with toddlers in conversations about emotions is likely to be more effective when a teacher is positioned at toddlers' level; and inviting toddlers to come for a nappy change is likely to be more respectful when the teacher is at toddler's level. The teachers' insights into the significance of the (seemingly) simple practice of being at toddlers' level are reflected in a range of research, which highlights the importance of being at

toddlers' level, tuning in, and responding to their cues, despite challenges such as the busy-ness of the day (e.g., Dalli et al., 2011; Gloeckler & Niemeyer, 2010; La Paro & Gloeckler, 2015).

Another significant change noted by the teachers was speaking more te reo Māori and feeling confident to do this. Speaking te reo Māori was integrated into the SETT PLD intervention through practices such as using the Māori names for emotion words and using Māori phrases in the contexts of routines and activities. Teachers were provided supportive and constructive feedback on their use of te reo Māori, and other languages, which is likely to have contributed to their growing confidence. Speaking te reo Māori represents just one aspect of the cultural competencies Aotearoa New Zealand ECE teachers are expected to bring to their teaching, nonetheless, it is an important aspect of affirming the languages and identities of an ECE service's families and community (Ministry of Education & New Zealand Teaching Council, 2011). Culturally responsive pedagogy was also integrated as a quality indicator throughout the SETT framework, such as through teaching practices that reflect the importance of relationships with parents and families; using parents' names and taking the time to talk with them; talking with families about children's learning; and by being connected with the community, such as through excursions or by making visitors welcome.

The single-subject experimental study associated with this interview did not formally measure changes in toddlers' social-emotional skills, however, it was hypothesised that there would be positive outcomes for toddlers. In support of this, a meta-analysis (Brunsek et al., 2020) of 64 studies that measured associations between ECE teachers' PLD and children's outcomes indicates that PLD with a coaching component may be more likely to result in positive outcomes for children. From the participating teachers' perspectives, there were positive changes in the toddlers' social-emotional skills and interactions. Environmental reinforcers, such as changes in toddlers' behaviour, can have a powerful impact on teaching practice. The relationship loop between teachers' implementation of effective practices and consequential positive responses from children has the potential to reinforce teaching practice and promote teachers' self-efficacy and more positive perceptions of children (Shannon et al., 2015).



For the participating teachers, a challenge associated with the coaching was to stay after work to attend workshops. Particularly for teachers who work in full day programmes, such challenges are typical (Cherrington, 2017). Barriers to teachers' engagement in PLD include time and workload, financial constraints, difficulty in finding relieving teachers and unsuitable scheduling of PLD (Cherrington & Thornton, 2013). The teachers' initial reluctance to engage in the PLD was another challenge but, as Timperley et al. (2007) explain, initial doubts about PLD do not necessarily impact on outcomes for learning; what is important is that teachers engage, at some point, in the PLD process.

## **6.6 Implications**

It is important to note that that the interview reflects the views of only two teachers, nonetheless, within the context of the single-subject experiment and wider research, there are important implications. Notably, coaching and specific teaching practices are worthy of greater attention in both research and practice in Aotearoa New Zealand's ECE context. The teachers' perspectives begin to build evidence of the social validity of coaching in New Zealand toddler classrooms, highlighting an effective PLD approach for teachers of some of our youngest learners.

## **6.7 Chapter Summary**

This chapter has described the participating teachers' perspectives of the SETT PLD intervention. The teachers had positive views of the practice-based coaching and social-emotional teaching practices, saying the SETT PLD intervention helped them learn about social-emotional teaching and apply their learning to practice. Teachers felt that toddlers' social-emotional skills and interactions improved as a result of the SETT PLD intervention. From teachers' perspectives, the SETT PLD intervention was well worth the effort, given the positive outcomes they saw in their own teaching and in the toddlers' learning.

In conjunction with the single-subject experiment, the investigation of the participating teachers' perspectives makes a number of contributions to the field of ECE PLD in Aotearoa New Zealand. First, the findings begin to build evidence of the social validity of coaching in Aotearoa New

Zealand ECE. The findings also highlight the importance of engaging in further studies of coaching as a PLD approach in a range of ECE services. Furthermore, the teachers found a great deal of value in learning specific teaching practices; they felt that the specificity of teaching practices was one of the keys that enabled them to change their practice. Within the limitations of the small sample size, this finding suggests that teaching practices—the actions and words that teachers use to support children’s learning—are worthy of further investigation. Teaching practices that are relevant and valuable to Aotearoa New Zealand ECE are becoming more visible in resources such as *The Hikairo Schema* (Macfarlane et al., 2019) and *He Māpuna te Tamaiti* (Ministry of Education, 2019b). This study highlights the potential of coaching as a PLD component to help teachers implement evidence-informed teaching practices, including teaching practices that will support culturally responsive pedagogy. Finally, this phase of the multiphase investigation has amplified the important voices of toddler teachers, and in doing so adds to the call for specialised PLD that recognises the specialised and critically important nature of toddler pedagogy (Aspden et al., 2021; Dalli et al., 2011; White et al., 2016).

## **Chapter 7. Conclusion**

### **7.1 Chapter Introduction**

The research within this thesis aimed to investigate early childhood teachers' professional learning and development (PLD), through a study of PLD research and provision, and by investigating a coaching intervention. The research was guided by a pragmatic approach to investigate current PLD research and provision in Aotearoa New Zealand ECE, with a view to understand and improve PLD systems. In this final chapter, the four research questions are answered succinctly, leading to solution-focused recommendations for PLD research, policy, and provision in Aotearoa New Zealand ECE. Each recommendation is described, discussed, and justified in relation to this multiphase investigation and to wider literature. Delimitations and limitations are acknowledged. The original contribution this thesis makes to ECE PLD is described before the thesis closes with a final summary.

### **7.2 What are the Characteristics of PLD Research in Aotearoa New Zealand Early Childhood Education, and How Does Coaching Feature Within the PLD Approaches Used?**

Aotearoa New Zealand ECE PLD research was characterised as a predominantly descriptive body of applied research, focused on helping teachers investigate pedagogy within their own ECE services. Although successful PLD outcomes predominated, some barriers to positive outcomes were identified throughout the literature. These included difficulties with group dynamics or ECE environments, difficulties in learning complex skills and applying learning to practice, and the need for different, or more, PLD supports to achieve some outcome objectives.

Another key characteristic was convergence of the research and PLD. Teachers were active participants within the research so that, in many cases, the research itself was a form of PLD. Boundaries between research methodologies and PLD interventions were often so blurred that differentiating PLD from research, or deciding whether action research (or other forms of practitioner inquiries) were intended to be research or PLD, was a key challenge of systematically reviewing the literature. In contrast to the predominance of one-off workshops experienced by Clarke et al.'s (2020) survey respondents, ECE teachers who participated in PLD research were very

likely to experience collaborative, inquiry-type models of professional learning. Overall, the literature that was systematically reviewed provided insufficient information about PLD participants, interventions or facilitators to fully understand the PLD. Identified research gaps included studies of PLD situated within Māori and Pasifika ECE services and studies of PLD focused on specialised pedagogies, especially for children with additional learning needs and for infants and toddlers. Coaching had rarely been investigated as a PLD approach in Aotearoa New Zealand's ECE sector. Throughout the literature, there were wide variations in the ways coaching was defined or appeared to be understood.

In describing the ECE PLD research base in Aotearoa New Zealand, the systematic literature review identifies the potential to enhance the rigour of the empirical research in this area. There is an identified need to establish clarity around academic research focused on PLD and practitioner-research as a form of PLD, including how both contribute to the ECE PLD evidence base. To this end, approaches to evidence-informed practice and programme development emphasise the importance of drawing from multiple forms of evidence, including rigorous research evidence (Brown, 2018; Davies, 2012) and evidence that is culturally grounded and relevant (MacFarlane & MacFarlane, 2013). Thus, as a cornerstone of evidence-informed PLD, a robust national research base is essential in supporting practitioners and policy makers to make evidence-informed decisions about PLD.

### **7.3 What are the Characteristics of PLD in Aotearoa New Zealand Early Childhood Education, and How Does Coaching Feature Within the PLD Approaches Used?**

Results of a survey of 345 early childhood education and care teachers suggest that isolated workshops predominate as a PLD approach in Aotearoa New Zealand ECE. Facilitation strategies that teachers experienced were predominantly focused on presenting information and engaging in reflective discussion. For instance, around 70% of the survey respondents reported being given information, such as through a presentation or reading material. Sixty-seven percent of the respondents had engaged in reflective discussions with PLD facilitators. Only 30% of respondents reported that their PLD facilitator had got to know them. Less than 30% reported that they had

worked with a facilitator to analyse data, or that a facilitator had observed their practice and talked with them about the observation. These results are concerning given that key features of PLD associated with promoting positive shifts in teaching practice include observation, performance feedback, analysis of data, and a responsive facilitator-teacher relationship (Elek & Page, 2019; Institute of Medicine and National Research Council, 2015; Kraft et al., 2018). The survey suggests teachers were supported to reflect on their pedagogy, but may not be experiencing the types of PLD support that would be effective in helping them successfully implement new pedagogical practices. The facilitation strategies that were less commonly reported by the respondents were also the types of strategies that are typical features of coaching. In other words, teachers' experiences of coaching appeared to be limited. It is of note that the survey respondents were almost exclusively qualified teachers. Little is known about the PLD experiences of unqualified staff who teach children in ECE services. The experiences of a range of teachers, including unqualified staff, are worthy of further investigation.

The short history and narrative review of PLD, presented in Chapter 1 of this thesis, suggests that Aotearoa New Zealand ECE PLD is characterised by a strong focus on collaborative inquiry, which may or may not be facilitated by an outside expert. This focus on collaborative inquiry has been evident through initiatives such as Centres of Innovation (Gibbs & Poskitt, 2009; Meade, 2011) and the Teacher-led Research Initiative (Ministry of Education, n.d.-i). Expectations in the Teaching Standards (Education Council, 2017) also promote teachers' collaborative inquiries. Yet, there appears to be limited attention paid to *how* early childhood teachers engage in collaborative inquiry or in various types of professional groups. Exceptions to this include Thornton and Cherrington's (2014, 2018) studies of professional learning communities in New Zealand ECE. Features of successful teacher collaboration identified in Thornton and Cherrington's research include effective leadership, commitment to a shared focus, and the engagement of an outside expert/facilitator to support critical and effective inquiry. Resources, time, and supportive structural conditions are also necessary features if teachers are to engage in collaborative inquiry in mature and critically

reflective ways that become embedded in educational culture, and remain focused on promoting positive outcomes for children (Stoll et al., 2006; Thornton & Cherrington, 2014, 2018). It is not clear that these features highlighted by Stoll et al. and Thornton and Cherrington are widely understood by teachers who engage in collaborative inquiries, nor by those expecting positive outcomes from collaborative inquiries.

Aotearoa New Zealand ECE PLD can also be characterised by aspirations for cultural responsiveness, particularly through teaching practices that promote positive outcomes for Māori and Pasifika children and their families. There have been multiple calls for further attention to PLD that supports teachers in their cultural responsiveness to Māori and Pasifika children, and PLD that supports teachers in Māori and Pasifika immersion centres (Cherrington & Thornton, 2013; Mitchell & Cubey, 2003; Timperley et al., 2007). Perhaps in response to this, the Ministry of Education (2019a) has acknowledged the importance of PLD that focuses on identity, language, and culture through objective 3.6 of the *Early Learning Action Plan 2019-2029*. In the *Early Learning Action Plan 2019-2029*, *Tātaiako* (Ministry of Education & New Zealand Teaching Council, 2011) and *Tapasā* (Ministry of Education, 2018b) are cited as points of reference for the planned programme of PLD. While it remains to be seen how a focus on identity, language, and culture will be realised in PLD programmes, and what influence *Tātaiako* and *Tapasā* will have, it is important to note that *Tātaiako* and *Tapasā* are not PLD interventions per se. They are approaches to teaching and learning that could be fostered through effective PLD. It is of concern that, despite aspirations for PLD that promotes culturally responsive teaching in Aotearoa New Zealand, Incredible Years Teacher remains in place as a key Ministry-funded programme to support social-emotional teaching (Ministry of Education, n.d.-g). Incredible Years Teacher was developed in the United States and, since 2011, has been funded for New Zealand teachers, with the provision of 6 workshops (once a month for 6 months), follow-up on-site support, and a maintenance workshop (Ministry of Education, n.d.-g). Meanwhile, social-emotional teaching resources developed in Aotearoa New Zealand tend to be supported by more limited online PLD options (e.g., Ministry of Education, n.d.-m).

Overall, PLD in Aotearoa New Zealand ECE could be characterised as unsatisfactory. The PLD system is challenged in meeting the needs of all teachers and children; has struggled to realise aspirations to support teachers' cultural competencies; has relied mostly on online PLD to support a key New Zealand social-emotional teaching resource; and continues to use an overseas PLD programme to support social-emotional teaching, despite the importance of all PLD having a "focus on identity, language and culture" (Ministry of Education, 2019a, p. 25). Facilitation strategies that are associated with coaching, such as observation and performance feedback, are not strong features of ECE PLD in Aotearoa New Zealand. These findings challenge current approaches to PLD in Aotearoa New Zealand, and highlight the importance of a more coherent and evidence-informed approach.

#### **7.4 Is There a Functional Relation Between Workshops Paired With Practice-Based Coaching and a Teaching Team's Implementation of Social-Emotional Teaching Practices?**

Chapter 5's single-subject multiple-baseline experiment demonstrated a functional relation between workshops paired with practice-based coaching and a teaching team's implementation of social-emotional teaching practices. Social-emotional teaching practices strengthened throughout the Social-Emotional Teaching for Toddlers (SETT) PLD intervention (which consisted of workshops paired with practice-based coaching). A framework comprising 30 teaching practices, within three areas of social-emotional learning and teaching was used to support the SETT PLD intervention and single-subject research. The three areas were: 1) emotional literacy; 2) friendships and peer play; and 3) routines, expectations, and social problems. The functional relation was most convincing in the area of emotional literacy. Nine weeks after the intervention, despite a change in the teaching team, practice was sustained above baseline measurements for emotional literacy teaching practices.

This study of the SETT PLD intervention has demonstrated the potential of coaching to improve teaching practices in an Aotearoa New Zealand toddler room. The study highlights the importance of more attention to coaching as an embedded feature of PLD, and identifies pathways

for further research into coaching and social-emotional teaching in Aotearoa New Zealand ECE. Future research could prioritise investigating coaching in a range of ECE settings. It will be important to examine the effects and social validity of coaching, and the maintenance of post-coaching teaching practice. An important research focus related to social-emotional teaching is to investigate PLD interventions that are embedded with the languages and cultures of Aotearoa New Zealand and position social-emotional teaching as a culturally situated practice.

The single-subject research methods used in this study enabled an investigation of a functional relation; that is the study was designed to determine whether the PLD intervention, and not another variable, promoted changes in the teaching team's practice. Single-subject studies, and other types of experimental research, have the potential to make an important contribution to Aotearoa New Zealand's predominantly descriptive PLD research base. Utilising a range of research methodologies is critical in the development of a robust research base that can support evidence-informed PLD.

### **7.5 What are Early Childhood Teachers' Perspectives of Practice-Based Coaching and Specialised Social-Emotional Teaching Practices for Toddlers?**

According to the teachers, and based on their informal observations, the SETT PLD intervention enhanced their social-emotional teaching practices and, in turn, toddlers' social-emotional skills. The teachers reported that all practice-based coaching components contributed to the success of the intervention, including observation, data-informed feedback, and constructive and supportive feedback. Teachers found the debriefs useful in supporting implementation of new pedagogical practices. The debriefs were 15 minute coaching conversations that involved goal setting, reflective discussions, and provision of feedback. The teachers indicated that practice-based coaching helped them understand their strengths and priorities, was affirming and motivational, and was useful in supporting their effective implementation of social-emotional teaching practices. Discussing observational data was seen as highly motivational. The teachers were supported by their coach to understand and utilise data, which may have been key to the effective data use (see



McLaughlin et al., 2020). Motivation also came from the environmental reinforcement of changes in toddlers' behaviours. The teachers said that they noticed positive changes in toddlers' learning and behaviour. These changes motivated the teachers to continue to implement the social-emotional teaching practices. It is possible that this type of environmental reinforcement not only supports practice change but can promote shifts in teachers' beliefs and attitudes, including teachers' self-efficacy and perceptions of children (cf. Guskey, 2010; Shannon et al., 2015).

The emails and the timing of workshops were two coaching components that were less well received by the teachers. Both of these components were challenging for teachers because of their workload. Workshops were held after the teachers had finished a full day's work, with one teacher waiting until the other had finished her shift before the workshops could start. The teachers said they had no time during their work day to be able to read the emails. This lack of time and support for PLD during work hours seems to be a typical and ongoing challenge for Aotearoa New Zealand ECE teachers (Cherrington, 2017).

The participating teachers valued the specificity of the social-emotional teaching practices, saying that a focus on specific teaching practices made it easier for them to implement the PLD in ways that were relevant for the toddlers in their classroom. The teachers also said they valued the specific focus on toddler pedagogy because this made the SETT PLD intervention relevant, and made it easier for them to transfer what they learned to teaching practice.

Two significant changes the teachers said they made were being at toddlers' level more often and using more Māori language. These changes were also reflected in observational data and the results of the single-subject experiment. Being at toddlers' level and speaking Māori language were embedded into multiple practices within the SETT framework to reflect the quality of teaching. For example, speaking te reo Māori was integrated into the SETT PLD intervention through practices such as saying emotion words in Māori language, and using Māori phrases in the contexts of routines and activities. Culturally responsive pedagogy was also integrated throughout the framework, such as through teaching practices that reflect the importance of relationships with

parents and families; knowing parents' names and taking the time to talk with whānau; having conversations about toddlers' learning and wellbeing; and by connecting with the community, such as through whānau events, excursions or by making visitors welcome.

This investigation of the teachers' perspectives provides emerging evidence of the social validity of coaching in an Aotearoa New Zealand ECE service, further highlighting the potential of coaching and the importance of more national research in this area.

## **7.6 Delimitations and Limitations**

Throughout this thesis with publications, delimitations and limitations relating to each phase are outlined in the various publications. Rather than repeat the limitations already outlined, this section is intended to identify and discuss key delimitations and limitations that, potentially, had the greatest impact on the overall quality of the research and the ability to answer the research questions.

Delimitations are the choices that were made about study design and scope. They are boundaries that are set during the planning stage of the research. As doctoral research, this multiphase study was designed in consultation with a doctoral supervision team and was refined through the process of PhD confirmation. A range of support from experts helped to ensure the research methods were appropriate and properly applied, and that the scope of the research provided a sufficiently comprehensive study of the topic. The research foci of PLD and of social-emotional teaching for toddlers were well-justified by a range of research (e.g., Center on the Developing Child, 2004; Institute of Medicine and National Research Council, 2015; Ministry of Education, 2019b). Other topics, including PLD to support teachers' cultural responsiveness, are also important but were not within the primary scope of this study.

This investigation into PLD research, provision and potential was conducted across three phases. The first phase, which aimed to investigate PLD research was achieved through a systematic literature review. The PRISMA protocols (Moher et al., 2015; Shamseer et al., 2015) that guided the review supported a comprehensive and systematic study of ECE PLD research, identifying key

characteristics of the research and PLD. Conducting a systematic literature review rather than a narrative literature review was a key design decision in this phase of the research. A narrative literature review provides a qualitative summary of evidence on a topic, whereas a systematic literature review is a research method intended to answer a specified research question (Kysh, 2013). Hence, systematic literature review methods were appropriate for this study because the aim was to investigate PLD research and answer a question regarding the characteristics of the research, rather than summarise the topic or existing evidence.

In phase two of the investigation, a survey was used to gather information about teachers' PLD experiences. A key design choice was that the survey did not include open questions that would have enabled qualitative analysis of teachers' perspectives. Nor was there any follow-up to the survey, such as through interviews with teachers or PLD providers. These choices were made because of concerns about demands on teachers' time, and because the design and scope of the survey was appropriate as part of a larger doctoral investigation.

A key intention of the third phase of the research was to identify whether a PLD intervention reliably produced changes in social-emotional teaching practices. Given this aim, and the small sample size, single-subject research was highly appropriate (see Gast, 2010; Kennedy, 2005). In step three of this phase of the study, toddlers' learning outcomes were informally explored through the teachers' perspectives, however, it was not within the scope of this research to directly measure outcomes for toddlers. An important direction for future research will be to focus studies of PLD and coaching interventions on children's outcomes.

Complementing the single-subject research with a teacher interview was important, especially in terms of beginning to explore social-validity of coaching. A choice was made for the researcher to interview the teachers, rather than engage an independent interviewer. Also, it was decided to limit this part of the research to a short interview with no additional online/written questionnaire. These choices were made because of teachers' preferences and out of consideration for the teachers' already heavy workloads.

In line with the pragmatic positioning, the multiphase design has enabled an investigation of the current PLD situation in Aotearoa New Zealand ECE, with a view to improve. Importantly, the scope of this multiphase investigation was adequate to address the research questions and has highlighted pathways for further research, including further applications and investigations of practice-based coaching (possibly through single-subject research) and more in-depth investigations of teachers' perspectives. Each phase of the study has provided insights that will inform important recommendations.

Limitations are those events that influenced the research but were out of the researcher's control. A key limitation was the COVID-19 pandemic (see Ramos, 2021). On the 23rd March 2020, in response to Aotearoa New Zealand's first outbreak of COVID-19, widespread restrictions on interactions, gathering and movement were introduced. Like many services and locations in Aotearoa New Zealand, ECE services were closed. At 11.59 on 25<sup>th</sup> March 2020, Aotearoa New Zealand went into Level 4 lockdown. Ongoing restrictions and lockdowns affected the single-subject component of this PhD, in particular, by delaying the single-subject study. Because of delays and ongoing uncertainty, it became infeasible to repeat the experiment with another two teaching teams (as had been initially planned). A key impact of this limitation was that replicating the single-subject research with multiple teaching teams would have strengthened the rigour of the research.

A further limitation has been the impact of Covid-19 on peer reviewing processes for journal publications. With Covid-19 affecting people's lives all over the world, peer reviewing processes have been slow (Ramos, 2021). Despite the limitations, this multiphase study has made numerous original contributions to ECE PLD and informs some important recommendations.

### **7.7 The Original Contributions of This Thesis**

This thesis makes a number of original contributions to wider knowledge in the context of professional development in early childhood education. These contributions are situated at multiple levels: PLD research; PLD provision; and PLD potential.

Through a study of PLD research, the thesis has offered a new and challenging perspective of Aotearoa New Zealand's ECE PLD research base. The systematic literature review provides insight into ECE PLD research and asserts the importance of advancing the research. In noting that a key characteristic of the research base was a convergence of research and PLD, the systematic literature review offers a provocation that practitioner research is not the same as academic research, and the blurring of these lines may be contributing to less rigorous application of both. It is important to note that both practitioner research, academic research, and well considered confluence of the two are valuable (Cardno, 2008; Hedges, 2007, 2010). Yet, there is a need to ensure that each is applied with rigour to contribute unique and complementary information to a robust research base. Overall, in identifying characteristics of ECE PLD research and recommending closer attention to the *who*, *what* and *how* of PLD, the systematic review has the potential to influence and reshape the Aotearoa New Zealand PLD evidence base.

This thesis also contributes to wider PLD research literature by utilising NPDCI's (2008) professional development conceptual framework in the design, analysis and discussion of investigation phases within the thesis. Attention to *who*, *what* and *how* of PLD to support this multiphase investigation exemplifies how a similar framework might be applied in other Aotearoa New Zealand ECE PLD research. Moreover, the studies of PLD and PLD research (phase one and two) identified a need for a conceptual framework to support the design, implementation, and reporting of PLD research in Aotearoa New Zealand.

Relating to PLD provision, numerous PLD resources were developed to support phase three of this multiphase investigation, including a coaching manual, an observation tool and an observation administration manual. These resources contribute to knowledge of social-emotional teaching and learning in Aotearoa New Zealand ECE, and knowledge of how social-emotional teaching can be supported through PLD. Furthermore, the investigation's orientation to observational measurement provides insight into the value of structured observations and the potential of observation tools to support PLD and research. Another recent example of the use of a

researcher-developed observation tool in New Zealand education comes from Aiono (2020) who developed the P-BLOT to support and assess play-based teaching in school classrooms. An observation tool was also used in the Te Kotahitanga professional development projects, although on a much larger scale and in secondary school contexts (see Bishop & Berryman, 2009; Bishop et al., 2009; Bishop et al., 2014). What this thesis adds is a rare example of the development and implementation of an observation tool in the unique Aotearoa New Zealand ECE context. Thus, the SETT PLD observation tool, coaching manual and protocols make important contributions to Aotearoa New Zealand ECE and to PLD.

Phase three, step three of this research also represented a rare application of coaching in Aotearoa New Zealand ECE, and the first investigation of practice-based coaching in this context. As such, it begins to build evidence of coaching as a PLD approach for Aotearoa New Zealand ECE teachers. The research also promotes wider understanding of coaching as a collaborative and cyclical process that includes structured observations, data-informed and performance-based feedback, goal setting and action planning. A further contribution is made through the use of coaching protocols and documentation to support implementation fidelity (i.e., the degree to which the coaching was implemented as intended). As the systematic literature review indicated, attention to implementation fidelity may be particularly important in Aotearoa New Zealand PLD research, where detailed reporting of PLD interventions and facilitation is not common. In line with this, several authors have noted a need for more detailed reporting of PLD interventions, in New Zealand and internationally. For example, Cherrington and Wansbrough (2007) identified the need to improve the reporting and evaluation of PLD that was provided through Ministry of Education-funded contracts; Timperley et al. (2007) noted that poor reporting of PLD research and specifically of PLD interventions was problematic; Kraft et al. (2018), Elek and Page (2019) and Brunsek et al. (2020) all identified limited reporting especially in terms of PLD dosage (i.e., the frequency and intensity of PLD interventions).

Overall, phase three of the investigation has provided a strong foundation for the potential for further coaching research in Aotearoa New Zealand ECE to support a lasting impact on practice. As an application of practice-based coaching outside of the United States, the SETT PLD intervention is also an important example of practice-based coaching adaptations for diverse contexts, including the bicultural context of Aotearoa New Zealand and the coaching of a teaching team rather than individual teachers.

This thesis foregrounds the critical importance and potential of PLD focused on social-emotional learning. Aligning with Aotearoa New Zealand social-emotional research literature, including *He Māpuna te Tamaiti* (Ministry of Education, 2019b) and the *Hikairo Schema* (Macfarlane et al., 2019), the SETT framework of 30 social-emotional teaching practices supported PLD that was culturally grounded and relevant in a New Zealand toddler room. Hence, this research highlights the potential in developing evidence-informed PLD interventions to support teachers' implementation of social-emotional teaching practices that are reflective of the cultures and languages of Aotearoa New Zealand.

The thesis also foregrounds social-emotional teaching as a relational and intentional pedagogical practice. This is not new knowledge. What contributes to the knowledge base in Aotearoa New Zealand ECE, is the *breaking down* of social-emotional teaching into specific and observable teaching practices that reflect developmentally appropriate, culturally responsive practice. The SETT framework comprised 30 specific and observable teaching practices, 10 in each of the areas. Focused on these teaching practices, practice-based coaching supported teachers in their cultural responsiveness and implementation of relevant, developmentally appropriate teaching practices in their ECE setting. The specialised nature of toddler pedagogy was also recognised through the SETT PLD intervention and the focus on social-emotional teaching practices. A specialised approach to social-emotional pedagogy is one worthy of more attention, especially as the Ministry of Education continues to discuss the development of self-control in early childhood (see Ministry of Education, 2019c).

## 7.8 Recommendations

In this section, six key recommendations are made for PLD research, provision, and policy.

### **1. Establish a funded research and development initiative that is specifically focused on rigorous research of PLD for the Aotearoa New Zealand ECE sector.**

*What might this look like?* A Ministry of Education-funded initiative that is focused on rigorous investigations of a range of approaches to PLD, is recommended. This recommendation would provide resources for rigorous PLD research, including larger scale intervention studies or comparative designs that enhance Aotearoa New Zealand's empirical PLD research base to inform PLD practice and policy. The initiative would complement an existing focus on locally designed practitioner research. Features of the research would include attention to PLD dose, delivery, facilitation, content, and the participants and their contexts.

*How is this recommendation justified?* This thesis has identified key characteristics of Aotearoa New Zealand ECE PLD research as a convergence of research and PLD, and a focus on whether PLD works rather than how, why, and under what conditions the PLD works. The systematic literature review has identified a wealth of literature about PLD, much of which involves facilitated practitioner inquiries and reports positive outcomes. An orientation to success is a characteristic of the PLD research literature and is also apparent in Ministry of Education initiatives, such as the Teacher-led Innovation Fund (Sinnema et al., 2018). Aotearoa New Zealand research that clearly investigates relationships between a PLD intervention and outcomes for teachers and/or children is limited. Yet, if PLD is to meet the needs of the diverse Aotearoa New Zealand ECE workforce, there is a pressing need for rigorous research evidence related to how, why, and under what conditions PLD works. Identifying what doesn't work is also critically important (Sinnema et al., 2018). A funded research initiative will be valuable in providing opportunities and resources that support rigorous studies of PLD which, in turn, support provision of evidence-informed PLD.



**2. Develop a PLD conceptual framework that reflects the Aotearoa New Zealand ECE context and promotes shared understanding of PLD and associated terminology.**

*What might this look like?* A research and development project, involving input and feedback from a range of stakeholders (see Buysse et al., 2009), is recommended. Aims would include the development of a PLD definition and conceptual framework that comprises critical aspects of PLD, such as *who*, *what* and *how* within the wider context of PLD, ECE and policy structures. Another aim would be to promote shared understandings and definitions of Aotearoa New Zealand ECE PLD, including PLD processes and terminology. This recommendation would promote shared understandings and common language between PLD providers, researchers, and consumers.

*How is this recommendation justified?* The multiphase investigation within this thesis has identified a need for research evidence related to how, why, and under what conditions PLD works in Aotearoa New Zealand ECE settings. The systematic literature review has highlighted a lack of clarity around PLD terminology and processes, specifically coaching and mentoring. Lack of clarity is not new. For example, Cherrington et al. (2013) noted mixed terminology and a lack of definitions in PLD providers' references to communities of practice, learning communities, and professional learning communities. Poor reporting of PLD research has also been highlighted through the systematic literature review within this thesis. The review identified a lack of information about PLD interventions and the actions of facilitators in supporting teachers' learning. Issues related to limited information within reports of PLD research are not new. Timperley et al. (2007) noted similar issues with reporting of PLD research, including limited descriptions of PLD interventions and facilitators. Moreover, Aotearoa New Zealand PLD research (and provision) would benefit from greater attention to implementation fidelity of PLD interventions. Monitoring implementation fidelity involves documenting and reporting what was intended and what occurred (Dunst et al., 2013). To advance the evidence base and support effective PLD in Aotearoa New Zealand ECE, it will be critical to

address these issues. The development of a PLD conceptual framework would provide a valuable tool to support rigorous research, development, and enactment of PLD.

Although it is possible to utilise an existing framework, as is evidenced through the use of the NPDCI framework in this multiphase investigation, research to develop a national framework would be more beneficial. Developing an Aotearoa New Zealand PLD conceptual framework would provide opportunities to discuss PLD and to generate knowledge and shared understanding in New Zealand ECE and wider communities. Furthermore, if all PLD is to have a focus on identity, language, and culture, it is important to conceptualise PLD through a framework that reflects the language and cultures of Aotearoa New Zealand ECE.

**3. Focus on a range of PLD options, including coaching, that move beyond collaborative inquiry or that provide a strong and intentional facilitated component to collaborative inquiries.**

*What might this look like?* PLD provision and research that is characterised by a range of PLD and facilitation approaches, is recommended. A range of PLD approaches includes coaching, and forms of job-embedded PLD that incorporate structured observation and data-informed performance feedback, as well as collaborative inquiries that are supported by a strong and intentional facilitated component. This recommendation includes a call for further research to identify the effects of coaching (and other forms of job-embedded, facilitated PLD) on teaching practices. Alongside investigations of the efficacy of coaching and other PLD approaches, it is important to explore the social-validity of coaching in Aotearoa New Zealand ECE.

This recommendation represents a shift from PLD that is predominantly focused on practitioner inquiry and often supported by an academic research partner or PLD provider. This is not a rejection of collaboration and inquiry. It is a call to broaden PLD possibilities, to explore different PLD approaches and to support teachers to engage in more critically reflective and rigorous inquiries of practice, with the support of a skilled facilitator.

*How is this recommendation justified?* This thesis has identified collaborative inquiry as a key characteristic of current PLD research in Aotearoa New Zealand ECE, yet the role (or presence) of a

facilitator is not always clear. As the systematic literature review indicated, it is often not clear whether collaborative inquiries are PLD. Thus, there is a need for increased focus on the features of successful collaborative inquiry, including facilitation (see Cherrington et al., 2013). A facilitator has a critical role to offer different perspectives, promote reflection and critical discussion, and provide resources and support (Thornton & Cherrington, 2018; Timperley et al., 2007). *How* early childhood teachers engage in collaborative inquiry and *how* they are supported through facilitation and structures (such as time and resources) is worthy of further attention.

Aotearoa New Zealand ECE teachers do not appear to be experiencing the types of PLD and facilitation support that will enable them to implement new pedagogical practices (Clarke et al., 2020). The survey of early childhood teachers suggested a limited range of PLD is experienced by early childhood education and care teachers, with one-off workshops predominating. Coaching appears to be uncommon, a finding that is reflected in limited attention to coaching in Aotearoa New Zealand ECE PLD research. Yet coaching, and facilitation strategies associated with coaching, such as performance feedback, have been evidenced as effective in promoting shifts in teaching practice and positive outcomes for children (Brunsek et al., 2020; Elek & Page, 2019; Kraft et al., 2018). The single-subject study within this thesis found that practice-based coaching (Snyder et al., 2015) resulted in improved implementation of social-emotional teaching practices in an Aotearoa New Zealand toddler classroom. Further, the participating teachers were very positive about the coaching process, saying it strengthened their teaching and toddlers' social-emotional learning. Given the international evidence and emerging national evidence, increased support for coaching is well-justified. To understand the effects of coaching and to explore social validity, there is a need for research in a range of Aotearoa New Zealand ECE services.

#### **4. Support teachers to use Aotearoa New Zealand teaching resources by providing evidence-informed PLD, designed to help teachers transfer knowledge to practice.**

*What might this look like?* Job-embedded PLD with a coaching component to support the implementation of Aotearoa New Zealand teaching resources, is recommended. A key aim would be

to help teachers implement pedagogical practices that are described in resources such as *He Māpuna te Tamaiti* (Ministry of Education, 2019b). This recommendation would mean that resources are accompanied by evidence-informed PLD, which increases the potential of resources to make a difference to teaching practice and promote positive outcomes for children. This recommendation applies to PLD provision and research.

*How is this recommendation justified?* If all PLD is to have a focus on identity, language, and culture that is beyond tokenistic, it will be essential to utilise teaching resources that reflect the languages and cultures of Aotearoa New Zealand. Numerous resources are available, many of which are aligned with the early childhood curriculum, *Te Whāriki* (Ministry of Education, 2017), and describe culturally responsive and relevant teaching practices. A missing component is PLD opportunities that enable teachers to effectively implement these teaching practices. Evidence-informed PLD to help teachers put the resources into action is needed. As Joyce and Showers (1982) have said for a long time, teaching is complex. To introduce a new pedagogical practice, teachers will need to begin by understanding the practice well in relation to their current teaching. To change their teaching, teachers will need to practise new skills, such as through role modelling or trying out new approaches in the classroom. As they apply new skills to teaching practice, teachers will need support, feedback and time to eventually be able to use the new skill effectively. Since Joyce and Showers described coaching in this way, a wealth of research has supported the effectiveness of coaching and provided evidence that has enabled coaching processes to be better understood and refined (Brunsek et al., 2020; Elek & Page, 2019; Kraft et al., 2018). Providing coaching support alongside teaching resources is critical in shifting valuable Aotearoa New Zealand resources from ECE services' bookshelves and into teaching practice. This recommendation is particularly important in supporting Aotearoa New Zealand teachers to use resources that foster culturally responsive Māori and Pasifika pedagogies.

## **5. Provide and continue to investigate PLD that supports specialised pedagogy and social-emotional learning**

*What might this look like?* PLD that supports specialised pedagogy, such as PLD with a focus on infant or toddler pedagogy, is recommended. This recommendation involves matching PLD with desired outcomes (see Catlett & Winton, 1997; Winton et al., 1997). It involves consideration of who is engaging in PLD, what content is important, and how the PLD can be delivered to meet desired outcomes (NPDCI, 2008). This recommendation also calls for recognition of the importance of social-emotional learning as a foundation for all learning and development that sets a trajectory for later-life outcomes (Center on the Developing Child, 2004, 2012; Goodman et al., 2015). This recommendation applies to PLD provision and research.

*How is this recommendation justified?* There is increasing recognition of infancy and toddlerhood as distinct periods in the human life span where learning occurs in the context of warm, responsive relationships (Center on the Developing Child, 2009; Dalli et al., 2011). With this recognition comes a growing understanding of the importance of specialised education and care, and a rejection of scaled down versions of programmes for older children (Aspden et al., 2021). PLD is a key tool in supporting teachers to implement developmentally appropriate and specialised practice. As the teachers who participated in the SETT PLD intervention testified, it was easier to change the way they taught when PLD was focused on specific teaching practices for toddlers. Yet, attention is needed to ensure toddler teachers can participate in quality PLD opportunities that support specialised and effective toddler pedagogy (Aspden et al., 2021; Cherrington et al., 2013; Clarke et al., 2020; Dalli et al., 2011; Mitchell & Cubey, 2003). A PLD focus on social-emotional learning may be particularly important for toddlers, who need support to apply their newly emerging social-emotional skills in ECE settings.

A range of evidence suggests social-emotional teaching should be a focus in Aotearoa New Zealand ECE services (cf. Education Review Office, 2011; Education Review Office, 2019; Ministry of Education, 2019b; Morton et al., 2017; Morton et al., 2020). Moreover, as promoting young

children's self-control in Aotearoa New Zealand ECE services emerges as a topic of discussion (Ministry of Education, 2019c), emphasising the language of social-emotional learning and co-regulation may be particularly useful in supporting developmentally appropriate practice in toddler classrooms (cf. Morton et al., 2020; Rosanbalm & Murray, 2017; Thompson, 2009). PLD interventions focused on supporting toddlers' emotional literacy as a foundation for social-emotional competence are worthy of more discussion and attention, as this thesis has highlighted. This thesis also identifies the importance of further research to develop and refine tools that support social-emotional teaching, alongside investigations of social-emotional teaching as a culturally situated practice in Aotearoa New Zealand ECE.

## **6. Support ECE teachers and leaders to be critical consumers of PLD and increase training for PLD providers.**

*What might this look like?* A PLD resource depository intended to promote understanding of PLD, including what can be expected from different approaches to PLD and how to match PLD purpose (i.e., desired outcomes) to PLD processes, is recommended. This includes providing information about what can be expected from different models of PLD (e.g., workshops, provision of resources, coaching). The depository may include articles, webinars, videos, teachers' stories—a range of resources to enable teachers to be critical consumers of PLD, and to support PLD providers. Included in this recommendation is formal training and resources for those who provide PLD and for teachers who are leading collaborative inquiries or other PLD initiatives.

*How is this recommendation justified?* This thesis identifies the importance of supporting teachers to be critical consumers of PLD, and to move beyond the option of attending isolated workshops. Providing teachers with resources to inform their PLD choices is one way to support teachers in matching PLD with desired outcomes (ensuring evidence-informed PLD options are available is also important). Given the diversity of ECE services and teachers in Aotearoa New Zealand, it is important that teachers have access to a range of PLD to meet their various needs and are able to select PLD that is fit for those needs (Cherrington & Shuker, 2012). For example, an

evaluation of Ministry-funded PLD noted many teachers needed support to address “foundational practices” before they could engage with other PLD content (Cherrington et al., 2013). Helping teachers understand what to expect from different PLD options would support teachers to make PLD choices that are more likely to support their needs and professional goals.

Within the Aotearoa New Zealand ECE PLD research literature, there is limited information about training and support for PLD facilitators (Clarke et al., 2021). Yet, skilled facilitation is a feature of effective PLD that should not be ignored (Mitchell & Cubey, 2003; Timperley et al., 2007). It cannot be assumed that facilitators will be able to effectively support teachers’ pedagogical and content knowledge without engaging in training themselves (Timperley et al., 2007). Thus, it is important to provide formal training, resources and ongoing support for those who provide PLD as well as for teachers who are leading PLD initiatives.

## **7.9 Thesis Summary**

The research presented in this thesis with publications was an investigation of PLD in Aotearoa New Zealand early childhood education. This study of PLD has been important and timely, given the Ministry of Education’s *Early Learning Action Plan 2019-2029* includes an objective to “introduce a planned and coherent national programme of PLD” (Ministry of Education, 2019a, p. 25). The research within this thesis was conducted across three successive phases to investigate ECE PLD research literature; to investigate the PLD that Aotearoa New Zealand early childhood teachers have received in recent years; and to investigate a PLD coaching intervention to support ECE teachers in their implementation of teaching practices to foster toddlers’ social-emotional learning.

The first of the three research phases involved a systematic literature review, which was conducted to identify the characteristics of Aotearoa New Zealand ECE PLD research. Fifty-six PLD studies, spanning 18 years of research, were reviewed. Characteristics of the research included a predominance of practitioner-researcher partnerships, collaborative inquiry models of PLD, limited attention to how PLD interventions were implemented, and limited attention to the role of the

facilitator. The systematic literature review makes a significant and challenging contribution to ECE PLD in Aotearoa New Zealand, by highlighting characteristics of the research and potential to advance the PLD evidence base. Implications, which have led to some of the key recommendations arising from this thesis, include the need for PLD research that has a strong and intentional focus on PLD interventions, including who was involved, what content was covered, and how the intervention was delivered.

The second phase of this investigation was a nationwide survey of early childhood teachers, designed to garner information about Aotearoa New Zealand ECE teachers' PLD experiences. This survey, alongside existing evaluations and reports of PLD in New Zealand ECE, contributes to a wider understanding of current PLD provision. Key findings were that workshops predominated as a PLD model. Although many teachers also engaged in discussions with facilitators, facilitation strategies that are associated with coaching, such as observation and feedback, were limited. Alongside this, the wider Aotearoa New Zealand PLD literature suggests a strong orientation to models of collaborative inquiry, which may or may not be facilitated. The ongoing popularity of models of PLD that are unlikely to result in sustained change in teaching practice highlights the importance of a coherent approach to ECE PLD, focused on *evidence-informed* PLD models. Implications of phase two, which have led to key recommendations arising from this thesis, include the need to ensure teachers have access to the types of PLD that are designed to promote shifts in teaching practice to improve outcomes for children, and the importance of supporting teachers to be critical consumers of PLD.

The third phase of investigation included a single-subject experiment (Kennedy, 2005) that was used to study a PLD and coaching intervention for toddler teachers. There were three key steps: developing PLD protocols and resources, including an observation tool; conducting a PLD intervention and investigating its effects using a single-subject research design (Gast, 2010); and interviewing the participants to seek their views of the PLD intervention. The PLD intervention combined workshops with practice-based coaching (Snyder et al., 2015), to help toddler teachers



implement effective social-emotional teaching practices. The relationship between the PLD intervention and the social-emotional teaching practices was analysed using single-subject multiple-baseline methods (Gast & Ledford, 2010). The PLD intervention strengthened social-emotional teaching practices throughout the intervention, with results suggesting that emotional-literacy teaching practices were maintained 9 weeks after the intervention, despite staff changes. According to the participating teachers, the PLD was a positive experience that improved their social-emotional teaching which, in turn, improved toddlers' social-emotional skills. All of the steps in phase three make significant contributions to ECE PLD in Aotearoa New Zealand: the development and trialling of resources (including the observation tool) have provided information about structured observation and data-informed performance feedback to support teaching practice; the investigation of the PLD intervention contributes evidence of the effects of coaching in an Aotearoa New Zealand toddler room; and the interview provides information about teachers' perspectives of coaching, and of specialised social-emotional teaching practices for toddlers. A key implication, which has led to some of the recommendations arising from this thesis, is the need for further application of, and research into, coaching in Aotearoa New Zealand ECE.

Finally, if young children are to be afforded their rights to quality education and care, then they must have knowledgeable, well-qualified, and skilful teachers. If teachers are to be knowledgeable, well-qualified, and skilful, then they must be provided with ongoing training and support that enables them to build knowledge, learn effective teaching skills and apply those skills. Without attention to PLD research and provision, there is a risk that inadequate PLD support for teachers will persist. Evidence-informed PLD is essential if Aotearoa New Zealand is to realise the aspiration of a culturally-responsive early childhood teaching community that is capable of supporting the wellbeing and learning of infants, toddlers, and young children. The potential for transformation of PLD systems in Aotearoa New Zealand ECE must go beyond "planned and coherent" to become planned, coherent, and *evidence-informed*.

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## **Appendices**

1. Low Risk Ethics Approval Notification
2. Ethics Approval Notification
3. Massey University PhD Thesis by Publication
4. Statements of Contribution Doctorate with Publications/Manuscripts
5. Systematic Literature Review Citations and Summaries
6. Survey
7. Note for Examiners of Doctoral Theses Explanation of COVID-19 Impacts
8. Interview Protocols and Questions

## Appendix 1. Low Risk Ethics Notification



Date: 03 September 2018

Dear Linda Clarke

Re: Ethics Notification - 400020077 - Practice-Based Coaching to Foster Social-Emotional Teaching Practices For Toddlers in Early Childhood Education: Systematic Literature Review and National Survey of Early Childhood Teachers' Professional Learning and Development Experiences.

Thank you for your notification which you have assessed as Low Risk.

Your project has been recorded in our system which is reported in the Annual Report of the Massey University Human Ethics Committee.

The low risk notification for this project is valid for a maximum of three years.

If situations subsequently occur which cause you to reconsider your ethical analysis, please contact a Research Ethics Administrator.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

**A reminder to include the following statement on all public documents:**

*"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research."*

*If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Professor Craig Johnson, Director - Ethics, telephone 06 3569099 ext 85271, email [humanethics@massey.ac.nz](mailto:humanethics@massey.ac.nz).*

Please note, if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to complete the application form again, answering "yes" to the publication question to provide more information for one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'C Johnson', on a light-colored background.

**Research Ethics Office, Research and Enterprise**  
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand T 06 350 5573; 06 350 5575 F 06 355 7973  
E [humanethics@massey.ac.nz](mailto:humanethics@massey.ac.nz) W <http://humanethics.massey.ac.nz>

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Human Ethics Low Risk notification

Professor Craig Johnson  
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

## Appendix 2. Full Ethics Notification



Date: 23 May 2019

Dear Linda Clarke

Re: Ethics Notification - SOB 19/14 - Practice-Based Coaching to Foster Social-Emotional Teaching Practices for Toddlers in Early Childhood Education: Experimental Single-Subject Multiple-Baseline Study.

Thank you for the above application that was considered by the Massey University Human Ethics Committee: Human Ethics Southern B Committee at their meeting held on Thursday, 23 May, 2019. On behalf of the Committee I am pleased to advise you that the ethics of your application are 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

Professor Craig Johnson  
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)



## Appendix 3. Massey University PhD Thesis by Publication



### PHD THESIS BY PUBLICATION

#### “PhD by Publication” vs “PhD by Monograph”

The “PhD by Publication” is an alternative to the traditional “PhD by Monograph” approach. In a *PhD by Monograph*, the PhD student writes a comprehensive piece of research in a book form, with typically separate chapters for literature review, conceptual development, analyses, and conclusions. The monograph approach is more in line with a view of demonstrating broad knowledge. Traditionally, only once the PhD thesis is completed, an attempt is made to carve out one or more research articles, which are then submitted to academic journals.

In a *PhD by Publication*, the PhD student authors or co-authors multiple articles, which are then joined together to constitute the PhD thesis. *Each* article will have the typical set up for the field, most frequently with sections for literature review, conceptual development, analyses, and discussion. The “PhD by Publication” model is an option for those doctoral candidates seeking to develop skills in writing articles for submission to peer reviewed journals during their PhD enrolment. A “PhD by Publication” teaches the PhD student the skills that are required for a modern academic: being able to write impactful and innovative research articles that are concise and clear, and being able to navigate the review process. The leading business schools in (continental) Europe, Asia, and North America have adopted a PhD by Publication system.

#### Key Differences

There are three key differences between a *PhD by Publication* and a *PhD by Monograph*:

1. **The outcome:** A monograph will typically have more detail in each of the chapters (e.g., a more elaborate literature review, more detail on the analyses, lengthier discussion). In contrast, the PhD by Publication will be typically more concise, because academic journals demand parsimony in writing. Hence each chapter in this kind of thesis will look like a rather concise, but standalone research article.
2. **The process:** In a PhD by Monograph, the supervision tends to be more at a distance; the idea is that each PhD student should show their own mastery of the subject through mostly independently-conducted research. In a PhD by Publication, the supervision is more of the nature of a master (supervisor) and apprentice (PhD student). The PhD student still takes the lead in the whole research process, but obtains rather direct supervision to ensure that the resulting working paper is worthy of being submitted to an academic journal. In the course of the PhD process, the supervision may get less tight to stimulate the development of the PhD student as an independent academic researcher.

3. *The implications for the “pipeline” of PhD students* (by the end of the PhD project): Whereas in a PhD by Publication, the chapters are essentially articles of a submittable standard for quality academic journals (and some of them may have been published already), in a PhD by Monograph the “article pipeline” for PhD by Monograph is typically empty. This may have important consequences for the PhD student on the job market if an academic career is the objective.

It is important to note that *PhD by Publication* is not an approach that will necessarily suit all candidates, all disciplines, or all supervisors, as it does place additional demands on the candidate and supervisors to prepare and submit material for publication. It is possibly harder to write a PhD by Publication, because every word counts and the research must have the potential to be approved by peer reviewers in the field. Undertaking a PhD by Publication requires a) “stronger than average” ability and motivation of a PhD candidate and b) “stronger than average” support of the supervision panel from the point of acceptance of the PhD application through to the thesis completion. *Whether or not both parties are prepared to follow this approach can be reconsidered at the confirmation.*

It should also be noted that the requirements for the “PhD by Publication” can vary by Faculty.

#### Current Massey Guidelines

The publication of papers during candidacy, or at least the attempt, can be highly advantageous. Massey University supports “PhD with Publication,” providing it conforms to the following:

#### Structure of the PhD by Publication thesis:

- The PhD with Publication requires the candidate to present a thesis comprising typically between two and six research papers some of which have been published, while others may be under review or ready for submission. The exact number of publications included in the thesis may vary per discipline, accounting for the significance or major contribution of the work, the rank of the targeted academic journals, expectations within the discipline, etc.
- The normal expectation is that each of those research projects is “publishable” (being prepared for a submission, under reviewer, or accepted for publication) in a recognized peer-reviewed academic journal. Ideally, the PhD candidate should target international and highly ranked outlets for publication. The quality of the targeted publication outlets should be demonstrable through, their impact factor and/or their inclusion in citation indexes and/or the credibility they hold within the field.
- The thesis must still work as an integrated whole, address a significant research question or questions and present a clearly identified original contribution to knowledge of the subject with which it deals. The usual practice is to have the overall introduction that introduces the topic, the problem (also covering the relevant literature in order to justify the topic and the research gaps)

and explains how different chapters address those issues. For some disciplines a separate literature review chapter may be required. At the end of the introductory chapter to the thesis the candidate is expected to outline the structure of the thesis indicating the chapters that have been written as papers for peer-reviewed publication and indicate the target outlets and the current status of each of the chapters with respect to those outlets (e.g., published, in revision following reviewers' comments, in review, to be submitted). The thesis should conclude with the overall conclusions across all the chapters.

- The candidate must ensure that all methods used in the thesis work are clearly described in the thesis, usually within the method sections of the corresponding papers in appendices (e.g., additional methods, derivations, questionnaires). Any data and discussion that was abbreviated due to the strictures of the publication process, including material published as supplementary can also be included in the appendices. It is also acceptable to have a separate chapter just on methodology, for as long as it is clarified whether or not this chapter represent a publication on its own.
- The research must have been conducted during the period of candidature (this stems from CUAP requirements, and it has implications for funding). Candidates cannot present material published prior to enrolment as part of the thesis.

#### Authorship on the publications:

- The authorship on the publications is determined based on the APA authorship guidelines, which also highlights that the supervisors are NOT automatically the authors on all publications. Only supervisors who have contributed sufficiently to an academic paper that is part of a PhD by publication are included as co-authors on the academic paper.
- The candidate may be the sole author of the publication(s), OR, where the candidate was a joint author, the research contributed by the candidate is normally expected to be in the capacity of first/ primary author. It is expected that multi-authored papers (of a submittable standard for quality academic journals) in a thesis would have a *substantial* and *significant* contribution by the candidate. The principal supervisor signs the Declaration for a thesis with publication form specifying the candidate's contribution. To protect the interest of candidates, it is important that authorship is discussed at an early stage of candidacy, ideally with the involvement of an independent party.
- Published material may be submitted for examination once only and by one doctoral candidate, so where team research is involved, it is important to clarify roles at an early stage.
- In special circumstances, different parts of the same publication may be submitted for examination by different candidates (e.g. where experiments and modelling have been done by different people).

- Manuscripts of a submittable standard, submitted manuscripts, manuscripts under review and/or accepted and published work, in part or in full, may all provide the basis for chapters in the thesis. Where work has been previously published, a journal may need to give copyright permission for the material to be included in a thesis which will be placed in the Library's electronic repository. Candidates should gain copyright clearance as early as possible.
- Where appropriate and possible, candidates are strongly advised to standardise the format and referencing of chapters. Copies of articles and/or creative works, as appropriate as published may be included in a pocket in the thesis, or in pdf form on the thesis CD.
- Candidates are advised to fully reference previous publication of their own sole-authored work, including graphs, tables and images that they themselves have generated. Any other intellectual content must be fully and appropriately referenced to the person(s) that supplied them. They are then able to sign a statement that the thesis is their own work.

## Examination

- The University sets the standard by which theses are examined, and acceptance of any part by a publisher does not necessarily mean that it meets examination standards. Examiners will be instructed to examine all parts of the thesis with equal rigour, and may request major or minor changes to any part of the thesis regardless of whether it has been published or not.
- It is advisable to select examiners who are familiar with the *PhD by Publication* format.
- The candidate is expected to have a working knowledge of all parts of the thesis, and to be able to answer questions about the thesis as a whole in the oral examination.
- The candidate is required to complete the form DRC 16 - 'Statement of Contribution to Doctoral Thesis Containing Publications' - for each article/paper included in the thesis.

***NB: Research that has been published (or accepted for publication), does not ensure a successful Doctoral examination.***



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Courier Address: Tennent Drive, Courtyard Complex, Palmerston North 4442, New Zealand

Postal Address: Private Bag 11-222, Palmerston North 4442, New Zealand

## Appendix 4. Statements of Contribution Doctorate with Publications/Manuscripts

DRC 16



GRADUATE  
RESEARCH  
SCHOOL

### STATEMENT OF CONTRIBUTION DOCTORATE WITH PUBLICATIONS/MANUSCRIPTS

We, the candidate and the candidate's Primary Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of candidate:	Linda Rose Clarke
Name/title of Primary Supervisor:	Dr. Tara McLaughlin
In which chapter is the manuscript /published work:	2
Please select one of the following three options:	
<input type="radio"/> The manuscript/published work is published or in press <ul style="list-style-type: none"> <li>Please provide the full reference of the Research Output: Clarke, L.R., McLaughlin, T.W., Aspden, K., Riley, T. &amp; Giffins, V. (2021). Characteristics of professional development research in the Aotearoa New Zealand early childhood education sector: A systematic literature review. Manuscript submitted for publication.</li> </ul>	
<input checked="" type="radio"/> The manuscript is currently under review for publication – please indicate: <ul style="list-style-type: none"> <li>The name of the journal: NZAROE, New Zealand Annual Review of Education: Te Arotake a Tau o Te Ao o te Maturanga i Aotearoa.</li> <li>The percentage of the manuscript/published work that was contributed by the candidate: 85.00</li> <li>Describe the contribution that the candidate has made to the manuscript/published work: The candidate led all aspects of the research and data analysis, with support and guidance from the doctoral supervisors. The primary supervisor helped to fund and train a research assistant, who the candidate worked with to complete reliability testing and consensus coding, and who is a co-author. The candidate wrote the manuscript, with feedback/input from co-authors. Manuscript submission, correspondence, peer review, and editing were all led by the candidate.</li> </ul>	
<input type="radio"/> It is intended that the manuscript will be published, but it has not yet been submitted to a journal	
Candidate's Signature:	Linda Rose Clarke <small>Digitally signed by Linda Rose Clarke Date: 2021.12.19 07:59:52 +1300'</small>
Date:	19-Dec-2021
Primary Supervisor's Signature:	McLaughlin, Tara <small>Digitally signed by McLaughlin, Tara Date: 2021.12.19 11:23:30 +1300'</small>
Date:	19-Dec-2021

This form should appear at the end of each thesis chapter/section/appendix submitted as a manuscript/publication or collected as an appendix at the end of the thesis.

GRS Version 5 – 13 December 2019  
DRC 19/09/10



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## STATEMENT OF CONTRIBUTION DOCTORATE WITH PUBLICATIONS/MANUSCRIPTS

We, the candidate and the candidate's Primary Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of candidate:	Linda Rose Clarke
Name/title of Primary Supervisor:	Dr. Tara McLaughlin
In which chapter is the manuscript /published work:	3
Please select one of the following three options:	
<input checked="" type="radio"/> The manuscript/published work is published or in press <ul style="list-style-type: none"> <li>• Please provide the full reference of the Research Output: Clarke, L. R., McLaughlin, T. W., Aspden, K., &amp; Riley, T. (2020). Supporting teachers' practice through professional learning and development: What's happening in New Zealand early childhood education? <i>Australasian Journal of Early Childhood</i>, 1-14. <a href="https://doi.org/10.1177/1836939120979063">https://doi.org/10.1177/1836939120979063</a></li> </ul>	
<input type="radio"/> The manuscript is currently under review for publication – please indicate: <ul style="list-style-type: none"> <li>• The name of the journal:</li> <li>• The percentage of the manuscript/published work that was contributed by the candidate: <span style="float: right;">90</span></li> <li>• Describe the contribution that the candidate has made to the manuscript/published work: The candidate led all aspects of the research, including the development and distribution of the survey and the data analysis. The doctoral supervision team supported by advising on survey design, distribution strategies and providing ongoing support and feedback. The candidate wrote the manuscript and shared it with supervisors, who provided input and feedback. Manuscript submission, correspondence, peer review and editing were all led by the candidate, with supervisor support and guidance.</li> </ul>	
<input type="radio"/> It is intended that the manuscript will be published, but it has not yet been submitted to a journal	
Candidate's Signature:	Linda Rose Clarke <small>Digitally signed by Linda Rose Clarke Date: 2021.12.10 13:41:28 +13'00'</small>
Date:	09/12/2021
Primary Supervisor's Signature:	McLaughlin, Tara <small>Digitally signed by McLaughlin, Tara Date: 2021.12.14 14:05:36 +13'00'</small>
Date:	14-Dec-2021

This form should appear at the end of each thesis chapter/section/appendix submitted as a manuscript/publication or collected as an appendix at the end of the thesis.



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## STATEMENT OF CONTRIBUTION DOCTORATE WITH PUBLICATIONS/MANUSCRIPTS

We, the candidate and the candidate's Primary Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of candidate:	Linda Rose Clarke	
Name/title of Primary Supervisor:	Dr. Tara McLaughlin	
In which chapter is the manuscript /published work:	4	
Please select one of the following three options:		
<input checked="" type="radio"/> The manuscript/published work is published or in press <ul style="list-style-type: none"> <li>• Please provide the full reference of the Research Output: Clarke, L. R., McLaughlin, T. W., Aspden, K. &amp; Riley, T. (2021). Supporting teaching practices to foster toddlers' emotional literacy. <i>NZ International Research in Early Childhood Education Journal</i>, 23(1), 52-58.</li> </ul>		
<input type="radio"/> The manuscript is currently under review for publication – please indicate: <ul style="list-style-type: none"> <li>• The name of the journal:</li> <li>• The percentage of the manuscript/published work that was contributed by the candidate: <span style="float: right;">85.00</span></li> <li>• Describe the contribution that the candidate has made to the manuscript/published work: The candidate developed and trialled an observation manual and tool, trained two research assistants, and led all aspects of the trial. Support was provided through existing practice-based coaching resources, a doctoral fund, expertise of the first supervisor and guidance from all supervisors. The candidate wrote the manuscript, with feedback/input from supervisors. Manuscript submission, correspondence, peer review, and editing were all led by the candidate.</li> </ul>		
<input type="radio"/> It is intended that the manuscript will be published, but it has not yet been submitted to a journal		
Candidate's Signature:	Linda Rose Clarke	<small>Digitally signed by Linda Rose Clarke Date: 2021.12.19 07:38:03 +13'00'</small>
Date:	19-Dec-2021	
Primary Supervisor's Signature:	McLaughlin, Tara	<small>Digitally signed by McLaughlin, Tara Date: 2021.12.19 11:26:00 +13'00'</small>
Date:	19-Dec-2021	

This form should appear at the end of each thesis chapter/section/appendix submitted as a manuscript/ publication or collected as an appendix at the end of the thesis.



## STATEMENT OF CONTRIBUTION DOCTORATE WITH PUBLICATIONS/MANUSCRIPTS

We, the candidate and the candidate's Primary Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of candidate:	Linda Rose Clarke	
Name/title of Primary Supervisor:	Dr. Tara McLaughlin	
In which chapter is the manuscript /published work:	5	
Please select one of the following three options:		
<input type="radio"/> The manuscript/published work is published or in press <ul style="list-style-type: none"> <li>• Please provide the full reference of the Research Output:</li> </ul>		
<input type="radio"/> The manuscript is currently under review for publication – please indicate: <ul style="list-style-type: none"> <li>• The name of the journal:</li> <li>• The percentage of the manuscript/published work that was contributed by the candidate: <span style="float: right;">80.00</span></li> <li>• Describe the contribution that the candidate has made to the manuscript/published work: The candidate led all aspects of the research, including ethics, recruitment, coaching, managing the single-subject experiment, data collection, management, and analysis. This was supported by the sharing of existing practice-based coaching resources, and expertise and input from the first supervisor. The candidate wrote the manuscript, with input/feedback from the supervisors.</li> </ul>		
<input checked="" type="radio"/> It is intended that the manuscript will be published, but it has not yet been submitted to a journal		
Candidate's Signature:	Linda Rose Clarke	<small>Digitally signed by Linda Rose Clarke Date: 2022.04.11 06:47:29 +1200'</small>
Date:	11 April 2022	
Primary Supervisor's Signature:	McLaughlin, Tara	<small>Digitally signed by McLaughlin, Tara Date: 2022.04.11 14:39:26 +1200'</small>
Date:	11-Apr-2022	

This form should appear at the end of each thesis chapter/section/appendix submitted as a manuscript/publication or collected as an appendix at the end of the thesis.



## Appendix 5. Systematic Literature Review Citations and Summaries

Citation	Summary of the Aims or Research Questions	Summary of the PLD Model
Backshall, B. J. (2016). <i>A culture for science in early childhood education: Where culture meets culture</i> [Doctoral dissertation, The University of Waikato]. The University of Waikato Research Commons. <a href="https://hdl.handle.net/10289/10702">https://hdl.handle.net/10289/10702</a>	Explored <b>science</b> pedagogy, including whether and how enhancing teachers' knowledge of science and early childhood science education enhanced children's learning.	A series of workshops.
Bary, R. L. (2009). <i>Infant and toddler teachers' professional development</i> [Master's Thesis, Massey University]. Massey University Theses and Dissertations. <a href="http://hdl.handle.net/10179/8382">http://hdl.handle.net/10179/8382</a>	Explored changes in perceptions and/or practice of a group of <b>infant and toddler</b> teachers as a result of their participation in a facilitated professional development programme.	A series of workshops, utilising video observation as a reflective tool.
Bary, R. L., Deans, C., Charlton, M., Hullet, H., Martin, F., Martin, L., Moana, P., Waugh, O., Jordan, B., & Scrivens, C. (n.d.). <i>Ako ngatahi: Teaching and learning as one: From leadership to enquiry: Teachers' work in an infants' and toddlers' centre</i> . COI.	In what ways does <b>educational leadership</b> , within a community of practice, impact on <b>infants' and toddlers'</b> disposition to enquire?	COI facilitated action research.
Cardno, C., & Reynolds, B. (2009). Resolving leadership dilemmas in New Zealand kindergartens: an action research study. <i>Journal of Educational Administration</i> , 47(2), 206-226. <a href="https://doi.org/10.1108/09578230910941057">https://doi.org/10.1108/09578230910941057</a>	Examined dilemmas encountered by kindergarten head teachers. Aimed to develop participants' capability to recognise and resolve leadership dilemmas. Research questions included: How did the [professional development] intervention assist <b>leadership recognition and attitudes to dealing with such dilemmas?</b>	A programme that introduced participants to dilemma resolution, followed by shared inquiry in the form of action research.
Carr, M., May, H., & Podmore, V. N. (2000). <i>Learning and teaching stories: Action research on evaluation in early childhood. Final report to the Ministry of Education</i> . NZCER.	Implemented an action research trial where teachers used <b>learning and teaching stories</b> and <b>narrative reflections</b> to <b>assess</b> children and <b>evaluate programmes</b> within their own centres. Explored how the process effected changes to <b>improve quality</b> .	Shared inquiry in the form of action research.
Carroll-Lind, J., Smorti, S., Ord, K., & Robinson, L. (2016). Building pedagogical leadership knowledge in early childhood education. <i>Australasian Journal of Early Childhood</i> , 41(4), 28-35.	Trialled a <b>coaching and mentoring</b> methodology to support <b>pedagogical leaders</b> to engage in "change" conversations with teachers.	Workshops plus on-site coaching and mentoring.

Cherrington, S., & Thornton, K. (2015). The nature of professional learning communities in New Zealand early childhood education: An exploratory study. <i>Professional Development in Education</i> , 41(2), 310-328. <a href="https://doi.org/10.1080/19415257.2014.986817">https://doi.org/10.1080/19415257.2014.986817</a>	Examined how contextual factors influenced the development of <b>professional learning communities (PLC)</b> , to understand the complexities of nature of ECE PLCs and their development. Each group of participants explored a different topic.	Shared inquiry, in the form of facilitated professional learning communities and teachers investigating their practice through action research.
Citizens Preschool and Nursery Centre of Innovation. (2008). <i>Collaborations: Teachers and a family whānau support worker in an early childhood setting</i> . COI.	Explored the difference that a <b>family and community</b> support worker made to children's learning and development in an early childhood education centre.	Shared inquiry in the form of COI facilitated action research.
Clarkin-Phillips, J., & Carr, M. (2009). <i>Strengthening responsive and reciprocal relationships in a whanau tangata centre: An action research project</i> . TLRI.	Aimed to identify the processes and practices that enabled a whānau tangata centre to strengthen relationships with the <b>community</b> and to provide new <b>learning opportunities for the children, parents and whānau</b> . Sought to identify strategies that could further strengthen the relationships and learning with the community.	Shared inquiry in the form of action research and academic-practitioner collaboration.
Davies, N. (2002). <i>Number games in early childhood centres</i> [Master's thesis, Massey University]. Massey University Theses and Dissertations. <a href="http://hdl.handle.net/10179/6275">http://hdl.handle.net/10179/6275</a>	Explored the use of <b>number games</b> in a kindergarten, including (as a secondary inquiry) the effectiveness of a short-term workplace centred professional development in relation to <b>children's number development</b> and game implementation.	Series of workshops.
Davis, K., & McKenzie, R. (2017). <i>Children's working theories about identity, language, and culture: O faugamanatu a fanau e sa'ili ai o latou fa'asinomaga, gagana ma aganu'u</i> . TLRI.	Aimed to support the <b>identity, language and culture</b> of all learners in the research sites, while emphasising improvement for <b>Pasifika learners</b> and those from <b>low socio-economic communities</b> through a cross-cultural collaboration project.	Shared inquiry, through concepts of sister relationships and extended communities of inquiry.
Depree, L., & Hayward, K. (2000). <i>Implementing the Quality Journey resource in early childhood centres</i> . Christchurch College of Education.	A pilot PLD study to support implementation of <b>The Quality Journey</b> . The objective was to identify practices that were changed, consolidated or abandoned as a result of implementing a cycle of <b>quality review</b> .	In-service courses, cluster meetings plus facilitated support to implement a cycle of self-review.

Duncan, J., Irvine, P., Auld, S., Cross, T., Fagan, H., Seiuli, T., Smith, C., Sutton, A., & Weir, S. (2009). <i>Homebased early childhood education (family day care): The visiting teacher's role in improving educators' practices: A summary</i> . TLRI.	Explored how visiting teachers could improve home-based educators' practices and <b>learning outcomes for children</b> , especially related to <b>children's thinking</b> .	Shared inquiry, involving action research.
Glass, B., Baker, K., Ellis, R., Bernstone, H., & Hagan, B. (2009). <i>Inclusion at Botany Downs Kindergarten: Centre of Innovation 2006–2008</i> . COI.	Explored an <b>inclusive environment</b> and how it is strengthened through action research. Topics included: enhancing <b>all children's learning</b> ; using <b>visual communication tools</b> to extend engagement with children and their <b>families</b> ; and exploring how teachers support children's <b>social competence and self-efficacy</b> .	Shared inquiry in the form of COI facilitated action research.
Gosteva, A. (2013). <i>Effects of early childhood teacher delivered play therapy intervention on the social skills of young children: A pilot study</i> [Master's Thesis, University of Canterbury]. UC Research Repository. <a href="http://hdl.handle.net/10092/8719">http://hdl.handle.net/10092/8719</a>	Examined whether children with <b>persistent conduct problems</b> would show improved <b>behaviour</b> following their teachers learning <b>play-therapy</b> strategies.	Workshops plus on-site coaching.
Grey, A. E. (2010). <i>Self-review as practical philosophy: A case study in early childhood education in Aotearoa New Zealand</i> [Doctoral Dissertation, Auckland University of Technology]. AUT Open Theses and Dissertations. <a href="http://hdl.handle.net/10292/1021">http://hdl.handle.net/10292/1021</a>	Explored teachers' <b>self-review</b> using an approach of practical <b>philosophy</b> . Examined whether involvement in the self-review process improved practice.	Shared inquiry in the form of action research and academic–practitioner collaboration.
Hagan, B., Austin, L., & Mudaliar, M. (2010). What makes a teacher-parent and family partnership? <i>NZ Research in ECE Journal</i> , 13, 137-143	Described action research to improve <b>parent-teacher relationships</b> at two kindergartens (a research note).	Shared inquiry in the form of action research and academic–practitioner collaboration.
Haworth, P., Cullen, J., Simmons, H., Schimanski, L., McGarva, P., & Woodhead, E. (2006). <i>The flight of our kite: The Wycliffe Ngā Tamariki Kindergarten story</i> . COI.	Explored how learning and teaching could be improved for children a kindergarten setting. Topics included <b>community of learners, language, language acquisition, and how ICT affected parents' engagement with children's learning</b> .	Shared inquiry in the form of COI facilitated action research.
Haynes, M., Cardno, C., & Craw, J. (2007). <i>Enhancing mathematics teaching and learning in early childhood settings</i> . TLRI.	To engage early childhood teachers in investigating and improving their expertise in the teaching and learning of <b>mathematics</b> .	Shared inquiry in the form of action research and academic–practitioner collaboration.
Hedges, H. D. (2007). <i>Funds of knowledge in early childhood communities of inquiry</i> [Doctoral dissertation, Massey University].	Aimed to increase teachers' understanding and enactment of a <b>community of inquiry; interest based curriculum</b> and	Shared inquiry in the form of co-constructed reflective inquiry

Massey University Theses and Dissertations. <a href="http://hdl.handle.net/10179/580">http://hdl.handle.net/10179/580</a>	<b>co-constructed inquiry.</b> Explored the role of the external facilitator in <b>research partnerships</b> to increase <b>coherence between research, practice and professional learning.</b>	facilitated by a critical friend (a critical friend is described as a trusted person who critiques, asks provocative questions, provides data to be examined through another lens).
Henson, K., Smith, H., & Mayo, E. (2008). <i>Central character story: Weaving families and their stories into children's learning in early childhood education.</i> COI.	To explore the use of <b>stories</b> , and <b>story characters to support children's learning</b> , and investigate what children, families and teachers learn through story character.	Shared inquiry in the form of COI facilitated action research.
Hooker, T., Peters, S., Biggar, S., & Bleaken, F. (2008). <i>Training on the job: How do home-based co-ordinators support educators to notice, recognise, and respond?</i> TLRI.	Aimed to investigate <b>what co-ordinators do to support educators to notice, recognise, and respond to children's learning</b> as well as what changes educators make as a result and what factors seem to be important in the process.	Shared inquiry in the form of action research and academic–practitioner collaboration.
Jordan, B. (2003). <i>Professional development making a difference for children: Co-constructing understandings in early childhood centres</i> [Doctoral dissertation, Massey University]. Massey University Theses and Dissertations. <a href="http://hdl.handle.net/10179/1809">http://hdl.handle.net/10179/1809</a>	Explored how children's learning was co-constructed in early childhood centres and what content knowledge and <b>professional development (PD) processes</b> support teaching teams as they learn to <b>co-construct children's learning.</b>	Shared inquiry in the form of facilitated action research and communities of inquiry.
Kelly, J., & White, E. J. (2013). <i>The ngahere project: Teaching and learning possibilities in nature settings.</i> Wilf Malcolm Institute of Educational Research. <a href="https://www.waikato.ac.nz/__data/assets/pdf_file/0007/146176/Ngahere-project_3-2013-03-14.pdf">https://www.waikato.ac.nz/__data/assets/pdf_file/0007/146176/Ngahere-project_3-2013-03-14.pdf</a>	Through action research, to explore <b>ECE pedagogy, as an investigation of practice, in outdoors, nature-based environments.</b> Each case had specific research questions.	Shared inquiry in the form of action research and academic–practitioner collaboration.
Lidington, T. (2000). <i>Mat weaving: Factors influencing the implementation of Te Whāriki</i> [Master's Thesis, Massey University]. Massey University Theses and Dissertations. <a href="http://hdl.handle.net/10179/5814">http://hdl.handle.net/10179/5814</a>	Compared <b>three professional development delivery models</b> for assisting early childhood educators to implement the New Zealand early childhood curriculum document entitled <b>Te Whāriki: Draft Guidelines for Developmentally Appropriate Programmes in Early Childhood Services</b> (Ministry of Education, 1993).	Three versions/models of workshops plus on-site visits.

<p>Lines, D., Naughton, C., Roder, J., Matapo, J., Whyte, M., &amp; Liao, T. (2014). <i>Move, act, play, sing (MAPS): Exploring early childhood arts teaching and learning strategies and concepts through community arts interventions</i>. TLRI.</p>	<p>Aimed to nurture a performing arts environment and document emergent concepts and learning pathways in the <b>performing arts</b> in the three case-study early childhood centres.</p>	<p>Workshops plus community artists' on-site visits.</p>
<p>Mackey, G., &amp; de Vocht-van Alphen, L. (2016). Teachers explore how to support young children's agency for social justice. <i>International Journal of Early Childhood</i>, 48(3), 353-367. <a href="https://doi.org/10.1007/s13158-016-0175-z">https://doi.org/10.1007/s13158-016-0175-z</a></p>	<p>Aimed to increase teachers' understanding of <b>social justice</b> issues; encouraging the use of picture books to provoke dialogues between children and teachers about social justice; and supporting children to see a different or wider perspective on issues.</p>	<p>Shared inquiry in the form of academic-practitioner collaboration. Included workshops where teachers shared learning stories, engaged in discussions, and developed presentations.</p>
<p>Mara, D., &amp; Burgess, F. (2007). <i>O a`oa`oga maa`e ma lona a`oa`oina i a`oga amata a le Pasifika: Early literacy: Quality teaching and learning in Pasifika early childhood education</i>. NZCER.</p>	<p>Explored the beliefs teachers held about <b>language acquisition</b> and <b>early literacy</b>. Described the action research process, and the changes that occurred in the teachers' pedagogical practice.</p>	<p>Shared inquiry in the form of action research and academic-practitioner collaboration.</p>
<p>McKean, K. M. (2014). <i>Effects of 'The Teachability Factor' professional development workshop on teachers' perceptions of challenging children in their classroom</i> [Master's thesis, University of Otago]. University of Otago: OUR Archive. <a href="http://hdl.handle.net/10523/5900">http://hdl.handle.net/10523/5900</a></p>	<p>Examined whether The Teachability Factor PLD programme improved <b>teachers' perceptions of challenging children</b> in their classroom. Aimed to provide teachers with confidence to approach challenging students in more appropriate and effective ways.</p>	<p>Series of workshops.</p>
<p>McLachlan, C., &amp; Arrow, A. (2013). Promoting alphabet knowledge and phonological awareness in low socioeconomic child care settings: A quasi experimental study in five New Zealand centers. <i>Reading and Writing</i>, 27(5), 819-839. <a href="https://doi.org/10.1007/s11145-013-9467-y">https://doi.org/10.1007/s11145-013-9467-y</a></p>	<p>Examined whether professional development could improve teachers' knowledge regarding facilitating <b>alphabetic and phonological awareness</b> in 3–5 year old children. Also examined if children's alphabetic and phonological awareness could be enhanced over an 8 week period.</p>	<p>One-off workshop.</p>
<p>McLachlan, C., Smith, J., McLaughlin, T., Ali, A., Conlon, C., Mugridge, O., &amp; Foster, S. (2017). Development of teachers' knowledge and skills in implementing a physical education curriculum: A New Zealand early childhood intervention study. <i>International Journal of Early Childhood</i>, 49(2), 211-228. <a href="https://doi.org/10.1007/s13158-017-0190-8">https://doi.org/10.1007/s13158-017-0190-8</a></p>	<p>Assessed how teachers' knowledge and skills changed as the result of a 10-week <b>physical activity</b> intervention programme (Jumping Beans) and participation in a related professional development programme.</p>	<p>Workshops plus onsite visits in which Jumping Beans staff gave suggestions to teachers and delivered physical activity sessions to children, with teachers encouraged to participate in the sessions.</p>

Meade, A., Grey, A., Depree, L., & Hayward, K. (2002). Quality improvement in early childhood services in New Zealand using The Quality Journey resource. <i>Early Childhood Folio</i> , 6, 2-6.	Described pilot studies where professional development facilitators introduced <b>The Quality Journey</b> to ECE services	Series of workshops to support self-review using the Quality Journey framework.
Mitchell, L. (2010). Shifts in thinking through a teachers' network. <i>Early Years</i> , 23(1), 21-34. <a href="https://doi.org/10.1080/0957514032000045537">https://doi.org/10.1080/0957514032000045537</a>	Aimed to support ways in which teachers and <b>parents/whānau</b> worked together to enhance children's learning and wellbeing.	Shared inquiry in the form of action research involving a teacher network, academic-practitioner collaboration, and the use of pedagogical documentation to critically analyse and reflect on practice.
Mitchell, L., Haggerty, M., Hampton, V., & Pairman, A. (2006). <i>Teachers, parents, and whānau working together in early childhood education</i> . NZCER.	Explored PLD to support <b>teacher-family relationships</b> to enhance children's wellbeing and <b>parent/whānau</b> , and factors that helped or hindered teacher and parent/whānau partnerships.	Shared inquiry in the form of facilitated action research including teachers' use of data to analyse, challenge and critique their own interactions and attitudes.
O'Hare, M. (2016). <i>Changes in New Zealand early childhood teachers' use of strategies to facilitate children's emergent literacy development</i> . [Master's thesis, University of Canterbury]. UC Research Repository. <a href="http://hdl.handle.net/10092/13443">http://hdl.handle.net/10092/13443</a>	What changes are seen in teachers use of strategies to support emergent literacy, in response to Teacher Talk combined with video coaching; in the use of strategies to promote the development of code based skills; and in the use of strategies to promote the development of meaning-related skills?	Workshops plus video coaching.
Phillips, G., McNaughton, S., MacDonald, S. (2002). <i>Picking up the pace: Effective literacy interventions for accelerated progress over the transition into decile 1 schools</i> . Ministry of Education. <a href="https://www.educationcounts.govt.nz/publications/pasifika/4971">https://www.educationcounts.govt.nz/publications/pasifika/4971</a>	To examine the effects on children's <b>literacy</b> achievement of providing professional development to teachers in early childhood centres and to teachers of children in their first year of school. And to identify whether the professional development could result in an increased number of children in decile 1 schools achieving at expected levels for their age at school entry and at 6 years.	A series of sessions informed by and responsive to observations of teachers' practice and teacher-provided examples of their literacy teaching.
Phillips, J. G. (2014). <i>The effects of a brief in-service course on teacher's skill in building cooperation in three to five year old children</i> . [Master's thesis, University of Canterbury].	Aimed to examine the effects of training early childhood teachers in the effective use <b>positive teaching strategies</b> to increase children's <b>appropriate behaviour</b> and decrease inappropriate behaviour.	Workshops plus facilitated on-site support that involved providing feedback to teachers.

Podmore, V. N., Te One, S., Dawson, L., Dingemans, T., Higham, J., Jones, J., Matthews, K., & Pattinson, S. (2008). <i>Nurturing a culture of care for infants and first-time parents: The SPACE Programme at Te Marua/Mangaroa Playcentre</i> . COI.	Explore how a programme for <b>infants and their parents</b> (SPACE) fosters learning and supports participation and collaborative relationships with the playcentre.	Shared inquiry in the form of COI facilitated action research.
Podmore, V. N., Wendt Samu, T., & A’oga Fa’a Samoa. (2006). <i>O le tama ma lana a’ oga, O le tama ma lona fa’ asinomaga: Nurturing positive identity in children</i> . COI.	Explored what helps learning and language continuity as children make transitions within and from the A’oga Fa’a Samoa, and how to implement those key approaches that help learning and language continuity.	Shared inquiry in the form of COI facilitated action research.
Pohatu, H. R., Stokes, K., & Austin, H. (2006). <i>Te ohonga ake o te reo: The re-awakening of Māori language: An investigation of kaupapa-based actions</i> . COI.	Aimed to identify changes and actions that would enhance <b>te reo Māori</b> learning, strengthen <b>Māori identity</b> and prepare children for success, within a <b>kaupapa Māori</b> framework.	Shared inquiry in the form of COI facilitated action research.
Rameka, L., Glasgow, A., Howarth, P., Rikihana, T., Wills, C., Mansell, T., Burgess, F., Fiti, S., Kauraka, B., & Iosefo, R. (2017). <i>Te whātu kete mātauranga: Weaving Māori and Pasifika infant and toddler theory and practice in early childhood education</i> . TLRI.	Aimed to support each of six services—three Māori, one Samoan, Tokelau, and Cook Islands—to develop their own <b>locally constructed</b> understandings, theory, and practices of <b>infant and toddler care</b> and education.	Shared inquiry in the form of action research.
Ramsey, K., Breen, J., Sturm, J., Lee, W., & Carr, M. (2006). <i>Strengthening learning and teaching using ICT: Roskill South Kindergarten</i> . COI.	Aimed to strengthen children’s learning using <b>information communication technology</b> .	Shared inquiry in the form of COI facilitated action research.
Ritchie, J., Duhn, I., Rau, C., & Craw, J. (2010). <i>Titiro Whakamuri, Hoki Whakamua. We are the future, the present and the past: Caring for self, others and the environment in early years’ teaching and learning</i> . TLRI.	Aimed to contribute to research about early childhood education pedagogies and an <b>ethic of care</b> , from kaupapa <b>Māori and Western perspectives</b> . Participants engaged in a process of collective inquiry that involved changing their philosophies, policies, and practices to emphasise <b>ecological sustainability</b> .	Shared inquiry in the form of a community of inquiry and academic-practitioner collaboration to build a research community of practice.
Simonsen, Y., Blake, M., La Hood, A., Haggerty, M., Mitchell, L., & Wray, L. (2009). <i>A curriculum whāriki of multimodal literacies: Wadestown Kindergarten’s Centre of Innovation research</i> . COI.	Aimed to explore <b>different literacy modes</b> in children’s <b>communicative</b> competence and examined how literacy modes are mediated by people, places and practices in the kindergarten, home and wider community.	Shared inquiry in the form of COI facilitated action research.

<p>Swain, N., &amp; Bodkin-Allen, S. (2017). Developing singing confidence in early childhood teachers using acceptance and commitment therapy and group singing: A randomized trial. <i>Sempre: Society for Education, Music and Psychology Research</i>, 39(1).  <a href="https://doi.org/s1://0d.o1i.1or7g7/1/01.1312771/1302311X0137X717070101441">https://doi.org/s1://0d.o1i.1or7g7/1/01.1312771/1302311X0137X717070101441</a></p>	<p>To increase <b>teachers' singing confidence</b> through either a group singing approach, or a talking approach, based on <b>Acceptance and Commitment Therapy</b>.</p>	<p>Two groups, each receiving a different intervention through a series of workshops.</p>
<p>Tamati, A., Hond-Flavell, E., Korewha, H., &amp; the whānau of Te Kōpae Piripono. (2008). <i>Centre of Innovation research report of Te Kōpae Piripono</i>. COI.</p>	<p>Aimed to enhance <b>whānau development</b>, explore the ways the <b>Māori worldview</b> is framed and phrased in contemporary language and incorporated into the structure, practice, and processes of the whare kōhungahunga.</p>	<p>Shared inquiry in the form of COI facilitated action research utilising a kaupapa Māori approach.</p>
<p>Taylor, L. (2007). <i>Re-imagining professional learning in early education</i> [Doctoral dissertation, The University of Melbourne]. The University of Melbourne Minerva Access.  <a href="http://hdl.handle.net/11343/37364">http://hdl.handle.net/11343/37364</a></p>	<p>Explored how <b>professional development</b> can be expanded for <b>individual and social change</b>.</p>	<p>Shared inquiry, discussions, critical inquiry, and debate.</p>
<p>Taylor, L. (2013). Lived childhood experiences: Collective storytelling for teacher professional learning and social change. <i>Australasian Journal of Early Childhood</i>, 38(3), 9-16.  <a href="https://doi.org/10.1177/183693911303800303">https://doi.org/10.1177/183693911303800303</a></p>	<p>Aimed to trouble identity by critically examining and re-defining how <b>children and adults understand themselves and others</b>.</p>	<p>Shared inquiry, using collective storytelling and critical discussions.</p>
<p>Thornton, K. (2009). <i>Blended action learning supporting leadership learning in the New Zealand ECE sector</i> [Doctoral dissertation, Victoria University of Wellington]. Victoria University of Wellington Te Herenga Waka: Doctoral Theses. <a href="http://hdl.handle.net/10063/996">http://hdl.handle.net/10063/996</a></p>	<p>Explored the use of <b>information communication technology (ICT)</b> to support leadership development, utilising a <b>blended action learning</b> approach to professional development.</p>	<p>Shared inquiry in the form of facilitated action learning that blended face-to-face meetings and online interactions.</p>
<p>Thornton, K., &amp; Cherrington, S. (2018). Professional learning communities in early childhood education: A vehicle for professional growth. <i>Professional Development in Education</i>.  <a href="https://doi.org/10.1080/19415257.2018.1529609">https://doi.org/10.1080/19415257.2018.1529609</a></p>	<p>Aimed to identify factors that influence the development of sustainable <b>professional learning communities (PLC)</b>. Aimed to identify how involvement in a PLC supported changes in teaching practices, as well as the organisational, structural, relational and interpersonal factors that influence the sustainability of PLCs.</p>	<p>Shared inquiry in the form of professional learning communities engaging in action research (initially) and later through self-review and academic-practitioner collaboration.</p>



Ulloa, M., Evans, I., & Jones, L. (2016). The effects of emotional awareness training on teachers' ability to manage the emotions of preschool children: An experimental study. <i>Escritos de Psicología / Psychological Writings</i> , 9(1), 1-14. <a href="https://doi.org/10.5231/psy.writ.2015.1711">https://doi.org/10.5231/psy.writ.2015.1711</a>	Examined the effects of <b>emotional competence</b> training for teachers on their abilities to respond to children's emotions during a contrived play activity.	A series of sessions that included connections to participants' own ECE settings and teaching, and role play.
van Wijk, N., Simmonds, A., Cubey, P., Mitchell, L., Bulman, R., Wilson, M., & Wilton Playcentre members. (2006). <i>Transforming learning at Wilton Playcentre</i> . COI.	Investigated pedagogical approaches, especially related to <b>schemas, learning and teaching stories</b> , children's learning <b>progress, continuity and quality</b> across playcentre sessions and between home and playcentre, parent engagement, and sustaining a <b>community of learners</b> .	Shared inquiry in the form of COI facilitated action research.
Wansbrough, D. (2003). <i>Pioneering The Quality Journey: A case study of a childcare centre undertaking their first review</i> [Master's thesis, Victoria University of Wellington]. Victoria Wairētō. <a href="https://viewer.waireto.victoria.ac.nz/client/viewer/IE923390/details?dps_dvs=1619657984903~605">https://viewer.waireto.victoria.ac.nz/client/viewer/IE923390/details?dps_dvs=1619657984903~605</a>	Investigated the usefulness of <b>The Quality Journey</b> , how teachers used the resource, and the role of an outside facilitator.	Workshops plus on-site visits.
White, E. J. (2003). <i>In search of quality: A journey for family daycare</i> [Master's thesis, Victoria University of Wellington]. Victoria Wairētō. <a href="https://viewer.waireto.victoria.ac.nz/client/viewer/IE922967/details">https://viewer.waireto.victoria.ac.nz/client/viewer/IE922967/details</a>	Investigated the role of <b>The Quality Journey/He Haerenga Whai Hua</b> in constructing definitions of quality in a family day care network. Participants were introduced to <b>quality review</b> and supported to use the resource in an investigation of relevance to their work.	Shared inquiry, in the form of cluster groups undertaking self-review.
Wright, J., Ryder, D., & Mayo, E. (2006). <i>Putting identity into community: Nurturing an early childhood learning community through visual art and project work in the curriculum</i> . COI.	Explored ways in which <b>visual arts</b> and <b>project work</b> contributed to building a <b>community of learners</b> .	Shared inquiry in the form of COI facilitated action research
Wright, L. (2000). <i>Three caregivers' perceptions of how learning about young children's thinking influenced their practice: An action research project in a family daycare setting</i> . Victoria University of Wellington.	Explored whether caregivers perceived any difference in their practice as a result of increasing their understanding of <b>children's learning and thinking strategies</b> , and making <b>connections with prior knowledge</b> .	Workshop, plus a series of shared inquiry meetings in which the participants discussed their practice related to an action research question.

## Appendix 6. Survey

Note: In exporting the survey from the Qualtrics platform to Microsoft Word, some question presentation will be different and does not reflect all formatting customisations.

### Teachers' professional learning and development survey

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#### Start of Block: Default Question Block

##### Q1.1

Welcome to the Teachers' Professional Learning and Development Survey. The survey will take **less than 15 minutes to answer**. Thank you for taking the time to complete this survey. I understand how busy teachers are but I also firmly believe that teachers' voices must be heard in educational research. **Your voice is incredibly important, valued and appreciated!**

Data from this nationwide survey will help to form a current picture of early childhood teachers' professional learning and development experiences. Throughout the survey, I have briefly explained why each set of questions is important and the type of valuable information your answers will provide.

The survey is part of my PhD research at Massey University. The information you provide will be used only for the purposes of this research. **Your responses are anonymous**. By beginning the survey you acknowledge that you have read the information provided and give consent to have your responses used for this research.

I think the survey will provoke some very useful thought, and perhaps discussion, about your professional learning and development experiences. While the responses are individual, your teaching team may like to complete the survey together during a team meeting so that you have opportunities to talk about your responses. You can use a computer or mobile phone to complete the survey. **You can save your answers if you need to stop and come back later but please return to the questionnaire within four weeks, or your survey will close.**

If you have any questions about this survey, or if you would like to receive a summary of the results of my research project, please contact me, Linda Clarke, at [Linda.Clarke.10@uni.massey.ac.nz](mailto:Linda.Clarke.10@uni.massey.ac.nz)

**With gratitude,**

Linda Clarke.

*This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher named in this document is responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher please*

contact Professor Craig Johnson, Director - Ethics, telephone 06 3569099 ext 85271, email [humanethics@massey.ac.nz](mailto:humanethics@massey.ac.nz).

End of Block: Default Question Block

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Start of Block: Block 1

Q2.1 The **first seven questions** are intended to gather information about you, your ECE service and your role as a teacher. They won't take long to answer and your answers will be really useful to give me context for the information you provide. **Thank you!**

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Q2.2 What is your current role?

- Teacher (1)
  - Head teacher (2)
  - Combined role of manager/leader and teacher (a manager who teaches children often) (5)
  - Manager/leader (who teaches children occasionally or not at all) (3)
  - Other (please specify) (4) \_\_\_\_\_
- 

Q2.3 What is the age range of the children you teach?

- Infants (about 0-2 years) (1)
  - Toddlers (about 1-3 years) (2)
  - Infants and toddlers (about 0-3 years) (3)
  - Young children (about 2-6 years) (7)
  - Young children (about 3-6 years) (4)
  - Mixed age (about 0-6 years) (5)
  - Other (please specify) (6) \_\_\_\_\_
-

Q2.4 Where is your ECE service? (please scroll down to find your region)

▼ Northland (1) ... Southland (16)

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Q24 Please select whichever indicators best describe your ECE service's location:

- Suburban/City suburbs (3)
  - Urban/Central city (4)
  - Rural or small town (1)
  - Isolated (2)
- 

Q25 Which of the following best describes your status?

- Qualified ECE or primary teacher (1)
  - Currently undertaking ECE or primary teacher training (2)
  - No ECE nor primary teaching qualification (3)
-

Q2.7 Could you please tell me which ethnicity you identify with? You can choose multiple answers.

- New Zealand European (1)
  - Māori (4)
  - Samoan (5)
  - Cook Islands Maori (6)
  - Tongan (7)
  - Niuean (8)
  - Chinese (9)
  - Indian (10)
  - Would rather not say (12)
  - Other (please specify) (11) \_\_\_\_\_
- 

Q2.8 How old are you?

- Less than 20 years (1)
- Between 20-29 years (4)
- Between 30-39 years (5)
- Between 40-49 years (6)
- Between 50-59 years (7)
- Over 59 years (9)

End of Block: Block 1

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Start of Block: Block 2

### Q3.1

Your answers to the **next questions** will help me learn about **your professional learning and development (PLD) experiences**. Your responses will help to create a picture of the PLD experiences of early childhood teachers throughout New Zealand. First, please carefully read this **definition of PLD**:

PLD means **any facilitated training and learning opportunities that are intended to help you gain knowledge and use new skills**.

PLD can take many forms. For example, PLD might involve a **facilitator coming to your centre** to support and strengthen your emergent literacy teaching, or you might attend a **workshop, webinar or seminar**. A PLD facilitator could be someone from outside or within your centre, as long as their role is to facilitate training intended to help you gain knowledge and learn skills. So, an ordinary team meeting wouldn't count as PLD: The purpose of the meeting would need to be that **teachers gain new knowledge and learn how to put that knowledge into practice**, with the **support of a facilitator**.

For this survey, **do not include** your **internal evaluation/self-review** as PLD. However, if you attend a workshop or have a facilitator support you in a particular area as part of your evaluation/review then you should include that. **Do not include** your **independent learning** (such as personal reading or post-graduate study) as PLD. **Do not include** your **initial teacher training**, such as a teaching diploma or degree as PLD.

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Q25 Thinking about your experiences **over the last two years**, how often did you engage in PLD?

- Never (1)
- Less than once a year (2)
- Once or twice a year (3)
- Three or four times a year (4)
- More than five times a year (5)

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*Display This Question:*

*If Thinking about your experiences over the last two years, how often did you engage in PLD? != Never*

Q26 How do you **usually** engage in PLD? Try to pick the item that is most common for you.

- With my whole teaching team (1)
- With some of my team (such as two or three teachers together) (2)
- Individually e.g., I tend to be the only person from my team to attend a seminar, where I engage in PLD with teachers from outside my centre (3)
- Other (please specify) (4) \_\_\_\_\_

---

*Display This Question:*

*If Thinking about your experiences over the last two years, how often did you engage in PLD? != Never*

Q27 What makes you decide to take part in PLD? You can choose more than one answer.

- The result of an internal evaluation/self-review (1)
- I want to improve my teaching in the topic area (2)
- It relates to my appraisal goals (3)
- It is an expectation of my employer (4)
- It is an area of learning identified by my centre team or manager as important (5)
- My interest in the topic (6)
- The PLD is recommended by other teachers (7)
- Advertising material (8)
- No particular reason, just a "spur of the moment" decision (9)
- Other (please specify) (10) \_\_\_\_\_

*Display This Question:*

*If Thinking about your experiences over the last two years, how often did you engage in PLD? != Never*

**Q29 Over the last two years**, who has funded your PLD? You can choose more than one answer.

- The Ministry of Education (for example SELO and Incredible Years Teacher programmes are Ministry funded) (1)
- My umbrella organisation (e.g., Association) (2)
- My centre (3)
- I do (self-funded) (4)
- I am not sure (5)
- Other (please specify) (6) \_\_\_\_\_

*Display This Question:*

*If Thinking about your experiences over the last two years, how often did you engage in PLD? != Never*

**Q28**

Thinking about your PLD **over the last two years**, what types of PLD have you experienced?

Please drag and drop items into the most appropriate boxes .

Most common form of PLD in my experience	I have sometimes experienced this type of PLD	I have never experienced this type of PLD
_____ Isolated short term workshops (e.g., a one or part day workshop or seminar) (1)	_____ Isolated short term workshops (e.g., a one or part day workshop or seminar) (1)	_____ Isolated short term workshops (e.g., a one or part day workshop or seminar) (1)
_____ Series of related workshops (e.g., a two hour workshop each week for four weeks, on the same/similar topic) (2)	_____ Series of related workshops (e.g., a two hour workshop each week for four weeks, on the same/similar topic) (2)	_____ Series of related workshops (e.g., a two hour workshop each week for four weeks, on the same/similar topic) (2)



\_\_\_\_\_ PLD where the facilitator visits your centre to support your work with children (e.g., coaching, mentoring, or observation and feedback) (3)

\_\_\_\_\_ PLD when you are regularly engaged with the facilitator throughout the PLD (e.g., inquiry, communities of practice, action research where the facilitator is regularly involved) (4)

\_\_\_\_\_ Clustered PLD, where your teaching team has joined teams from other education services in a PLD programme (5)

\_\_\_\_\_ Webinar (6)

\_\_\_\_\_ Other (please specify) (7)

\_\_\_\_\_ Other (please specify) (8)

\_\_\_\_\_ PLD where the facilitator visits your centre to support your work with children (e.g., coaching, mentoring, or observation and feedback) (3)

\_\_\_\_\_ PLD when you are regularly engaged with the facilitator throughout the PLD (e.g., inquiry, communities of practice, action research where the facilitator is regularly involved) (4)

\_\_\_\_\_ Clustered PLD, where your teaching team has joined teams from other education services in a PLD programme (5)

\_\_\_\_\_ Webinar (6)

\_\_\_\_\_ Other (please specify) (7)

\_\_\_\_\_ Other (please specify) (8)

\_\_\_\_\_ PLD where the facilitator visits your centre to support your work with children (e.g., coaching, mentoring, or observation and feedback) (3)

\_\_\_\_\_ PLD when you are regularly engaged with the facilitator throughout the PLD (e.g., inquiry, communities of practice, action research where the facilitator is regularly involved) (4)

\_\_\_\_\_ Clustered PLD, where your teaching team has joined teams from other education services in a PLD programme (5)

\_\_\_\_\_ Webinar (6)

\_\_\_\_\_ Other (please specify) (7)

\_\_\_\_\_ Other (please specify) (8)

Q30

At **any time in your teaching career**, have you ever participated in the following?

- Strengthening Early Learning Opportunities (SELO) (1)
- Incredible Years Teacher Programme (IYT) (2)
- Kahui Ako (CoL) (3)
- Teacher Led Innovation Fund (TLIF) (4)
- Centres of Innovation (COI) (5)
- Teaching and Learning Research Initiative (TLRI) (6)
- The OLLi (oral language and literacy) programme (7)
- None of the above (8)

End of Block: Block 2

---

Start of Block: Block 4

*Display This Question:*

*If Thinking about your experiences over the last two years, how often did you engage in PLD? !=  
Never*

Q29

The **final five questions** are about the content of your PLD - **the types of things you learn about as well as the strategies PLD facilitators use to teach you**. Your answers are important because they will help to build a picture of PLD content, in terms of what teachers do and do not receive. **Thank you!**

Just a reminder, PLD means **any facilitated training and learning opportunities that are intended to help you gain knowledge and use new skills**.

---

Q33

Which of these broad topic areas **would you like to cover in future PLD? And which topics, if any, have you covered over the last two years?**

Please drag and drop items into the most appropriate box. The list is long but **you do not need to**

**move all the items.**

Covered	I haven't engaged in this topic but I would like to
_____ Te Whāriki (1)	_____ Te Whāriki (1)
_____ Assessment (2)	_____ Assessment (2)
_____ Leadership (3)	_____ Leadership (3)
_____ Mathematics (4)	_____ Mathematics (4)
_____ Literacy (5)	_____ Literacy (5)
_____ Social-emotional teaching and learning (including Incredible Years) (6)	_____ Social-emotional teaching and learning (including Incredible Years) (6)
_____ Visual art (7)	_____ Visual art (7)
_____ Dance (8)	_____ Dance (8)
_____ Infants and toddlers (9)	_____ Infants and toddlers (9)
_____ Music (10)	_____ Music (10)
_____ Te reo me ngā tikanga Māori (11)	_____ Te reo me ngā tikanga Māori (11)
_____ Cultural competency (12)	_____ Cultural competency (12)
_____ Working with families (13)	_____ Working with families (13)
_____ Regulations (29)	_____ Regulations (29)
_____ Transitions (14)	_____ Transitions (14)
_____ Continuity of learning (15)	_____ Continuity of learning (15)
_____ Self-review/internal evaluation (16)	_____ Self-review/internal evaluation (16)
_____ Sustainability/enviroschools (17)	_____ Sustainability/enviroschools (17)
_____ Physical activity/movement (18)	_____ Physical activity/movement (18)
_____ Health and nutrition (19)	_____ Health and nutrition (19)
_____ Science (24)	_____ Science (24)
_____ STEM (26)	_____ STEM (26)
_____ Exceptional learners e.g., gifted and talented learners, autism, ADHD (please specify) (20)	_____ Exceptional learners e.g., gifted and talented learners, autism, ADHD (please specify) (20)
_____ Other (please specify) (21)	_____ Other (please specify) (21)
_____ Other (please specify) (22)	_____ Other (please specify) (22)

*Display This Question:*

*If Thinking about your experiences over the last two years, how often did you engage in PLD? != Never*

Q35

Thinking about your PLD **over the last two years**, which of these facilitation strategies have any of your PLD facilitators used to help you learn?

**You can choose multiple answers.**

- Asking me about what I currently know and do (1)
  - Getting to know me (2)
  - Presenting material (e.g., PowerPoint) (3)
  - Giving me reading material (7)
  - Making resources or helping me make resources (8)
  - Showing video exemplars of other teachers using valued or effective teaching practices (11)
  - Supporting me to identify what's most important for the children I teach (14)
  - Helping me set professional goals (18)
  - None of the above (19)
- 

*Display This Question:*

*If Thinking about your experiences over the last two years, how often did you engage in PLD? != Never*

Q37 Thinking about your PLD **over the last two years**, which of these (more specific) facilitation strategies have any of your PLD facilitators used to help you learn?

**You can choose multiple answers.**

- Engaging in reflective discussion with me (4)
- Observing or videoing my practice (5)
- Talking about the observations/videos with me (6)
- Giving me feedback about what I could do differently (9)
- Giving me feedback about what I do well (10)
- Working with me to analyse data (e.g., reviewing child data about how a child initiates peer interactions) (12)
- Helping me decide what changes I could make to my teaching, or my team could make to our programme or environment, to better support children's learning (15)
- Observing my practice again to see whether I have been able to make changes (18)
- Showing me what to do (e.g., modelling a specific teaching practice) (16)
- Other (please specify) (17) \_\_\_\_\_
- None of the above (19)

---

*Display This Question:*

*If Thinking about your experiences over the last two years, how often did you engage in PLD? != Never*

Q23

I am interested in **how teachers are supported to meet the needs of infants, toddlers and young children.**

Sometimes, it can be useful to learn more about a particular age group of children. For example, some PLD may focus on care routines for infants, while other PLD may focus on the needs of four to five-year-olds as they begin a transition to school. And some PLD may have no particular age group focus - for example PLD to support your assessment practices, or PLD about sustainability and environmental awareness, might not focus on a particular age group.

Thinking of your PLD **over the last two years, about how often have you engaged in PLD that has focused on the age-groups provided?** Please drag and drop the items into the most relevant boxes.

Mostly	Sometimes	Never
_____ No focus on a particular age group (6)	_____ No focus on a particular age group (6)	_____ No focus on a particular age group (6)
_____ Infants and toddlers (about 0-3 years) (1)	_____ Infants and toddlers (about 0-3 years) (1)	_____ Infants and toddlers (about 0-3 years) (1)
_____ Specifically infants (about 0-2 years) (2)	_____ Specifically infants (about 0-2 years) (2)	_____ Specifically infants (about 0-2 years) (2)
_____ Specifically toddlers (about 1-3 years) (3)	_____ Specifically toddlers (about 1-3 years) (3)	_____ Specifically toddlers (about 1-3 years) (3)
_____ Young children (about 3-6 years) (4)	_____ Young children (about 3-6 years) (4)	_____ Young children (about 3-6 years) (4)
_____ Mixed age (about 0-6 years) (5)	_____ Mixed age (about 0-6 years) (5)	_____ Mixed age (about 0-6 years) (5)

**Q41 Here is the final question!** Sometimes we learn a lot about teaching when we participate in action research. Have you ever taken part in an **action research project that has been led by an outside facilitator or researcher?**

- Yes (1)
- Not sure (2)
- No (3)

End of Block: Block 4

## Appendix 7. Note for Examiners of Doctoral Theses Explanation of COVID-19 Impacts



GRADUATE  
RESEARCH  
SCHOOL

### Note for Examiners Explanation of COVID-19 Impacts

Thank you for taking the time to examine this thesis, which has been undertaken during the Covid-19 pandemic. The New Zealand Government's response to Covid-19 includes a system of Alert Levels which have impacted upon researchers. Our University's pandemic plan applied the Government's expectations to our research environment to ensure the health and safety of our researchers, however, research was impacted by restrictions and disruptions, as outlined below.

For a six-week period from March 26 to April 27 2020, New Zealand was placed under very strict lockdown conditions (Level 4 – [Lockdown](#)), with students and staff unable to physically access University facilities, unless they were involved in essential research related to Covid-19. All field work ceased and data collection with humans was restricted to online methods, if appropriate. The restrictions were partially lifted on April 27, but students and staff were not generally allowed back into University facilities until May 13.

Ongoing disruptions have also been encountered for some students due to uncertainties over the potential for future Covid-19-related restrictions on activities, and a Covid-19 cluster outbreak based in Auckland in New Zealand on 12 August 2020 led to the imposition of rolling Level 2 ([Reduce](#)) and Level 3 ([Restrict](#)) conditions until 23 September 2020. Auckland campus based students remained on Level 2 until 7 October 2020. This Alert Level system continues to be utilised throughout 2021.

These changing Alert Levels have meant that some research students had experimental, clinical, laboratory, field work, and/or data collection or analysis interrupted, and consequently may have had to adjust their research plans. For some students, the impacts of Covid-19 stretched far beyond the lockdown period in April/May 2020, as they may have had to significantly revise their research plans.

Overseas travel is not permitted by the University and restrictions have been placed on the New Zealand borders which are closed to non-New Zealand citizens and permanent residents. This meant that international students who were based offshore at the time of lockdown, were unable to return to New Zealand. A small number of offshore students were provided permission to return to New Zealand in early 2021. Many students have also suffered from anxiety and stress-related issues, and have had financial impacts, meaning their research progress has been significantly delayed.

This form, as completed by the supervisor and student, outlines the extent that the research has been affected by Covid-19 conditions.

Approved by DRC 10/Feb/2021  
DRC 21/02/03

**Please consider the factors listed below in your assessment of the work.**

This statement has been prepared by the candidate's supervisor in consultation with the student and has been endorsed by the relevant Head of Academic Unit.

Student Name: Linda Clarke ID Number: 04004876

Supervisor Name: Tara McLaughlin Date: 10-Dec-21

Thesis title:  
Transforming early childhood teachers' professional learning and development

**Considerations to be taken into account.** Note: This statement will remain in the final copy of the thesis which will be available from the Massey University Library following the examination process. *[Enter key considerations here for the examiners. This can include but is not limited to change of scope, scale, topic, focus; limitations in relation to data collection, access to necessary literature or archival materials, laboratories, field sites; disruptions as a result of lockdown and various alert levels, medical or health considerations etc]*

Linda's proposed study design was to replicate a single-subject multiple-baseline across behaviours experiment, applying the single-subject experiment non-concurrently across up to three settings. The plan provided a nested multiple-baseline design in which each setting would have three baselines to examine replication across each area of the intervention and be replicated across settings.

Following the piloting of her observation tool, she was about to start her study with the first participating ECE setting when New Zealand entered the first COVID lockdown. The study was delayed during this time. She was able to begin and complete the study with her first setting between June and December of 2020.

She began her second study with a new setting in September of 2020 and completed the baseline observations. This study was abandoned in October of 2020 at the request of the setting due to ongoing restrictions and education setting COVID protection protocols that was creating additional stress for the participating team.

By November of 2020, it was too late to recruit a new setting before the end of the year and the ongoing uncertainty associated with COVID restrictions would continue to make recruitment of a new setting difficult in the new year. The decision was made that the existing completed single subject research (SSR) study had sufficient experimental rigour for Linda to proceed with this as her primary study for the third phase of her research. While Linda showed very good perseverance and resilience during this time, the supervision team felt that further delays were not in Linda's best interest and advised she proceed with her focus on writing up her research to support thesis completion.

Approved by DRC 10/Feb/2021  
DRC 21/02/03



**Confidential for Examiners Only:** *[Please enter any other considerations which are confidential for examiners only and should not be placed in the final thesis version submitted to Library following the examination process]*

Signed, confirming this is a fair reflection of the impact of Covid-19 on this research.

Student **Linda Rose  
Clarke** Digitally signed by Linda  
Rose Clarke  
Date: 2021.12.14  
14:59:57 +13'00'

Supervisor **McLaughlin,  
Tara** Digitally signed by  
McLaughlin, Tara  
Date: 2021.12.14  
14:28:02 +13'00'

Head of Academic Unit (or nominee) **Lee, Howard** Digitally signed by Lee,  
Howard  
Date: 2021.12.15  
12:13:04 +13'00'

Approved by DRC 10/Feb/2021  
DRC 21/02/03

## Appendix 8. Interview Protocols and Questions

### SETT Coaching Post-Intervention Focus Group Interview Protocols Social-Emotional Teaching for Toddlers

Interview Conducted By:	Participant:
Date:	Duration of Interview:
Interview Recorded by Audio:	Recording Complete: Yes No

#### Welcome

The interview process should be opened with a welcoming tone and an appreciation for participating in both the overall project and this final aspect of the data gathering process. Inform the participants that this interview is designed to gather feedback from them on two areas of the project:

- 1. their experience of teaching practices to support toddlers' social-emotional learning**
- 2. their experience of practice-based coaching.**

Inform participants that this interview process is confidential and non-identifiable and encourage them to speak openly and honestly about their experiences. Remind participants that any feedback they provide will assist the researcher to refine and improve the way in which PLD is offered to teachers wishing to support toddlers' social-emotional learning. Thank the teachers for their work and commitment.

#### Format/Structure of the Group Interviews

There are two topic areas – the practices and the coaching. Both topic areas have overarching questions and there are some subsequent probing (follow-up) questions. The interviewer should ask the overarching questions for both topic areas and use the probe question if it seems necessary to have the teachers expand on their responses. If the overarching questions provide responses to these probe questions, or if a question has already been answered, the interviewer does not need to ask them. This is a focus group – participants should be encouraged to discuss rather than simply answer any questions. The interview should take no longer than 90 minutes.

#### Topic Areas

- Social-emotional teaching
  - Emotional literacy
  - Friendships and peer play
  - Routines, expectations and social problem solving
- Professional Development
  - Topic and reflection workshops
  - Practice-based coaching (PBC)

- 1. Describe your overall experience in implementing teaching practices to foster toddlers' social-emotional learning.**

#### Probe:

- *How would you characterise your experience? positive, negative, neutral? Why?*

- *Depending on answer:*
    - *Were there any aspects that you did not enjoy about your experience implementing teaching to support toddlers' social-emotional learning?*
    - *Were there any aspects that you did enjoy about your experience implementing teaching to support toddlers' social-emotional learning?*
2. **What was it like to work on separate areas of social-emotional learning i.e., emotional literacy, friendships and peer play and routines, expectations and social problem solving?**
  3. **You focused on a number of specific teaching practices (strategies or actions) to support toddlers' social-emotional learning. Please tell me what it was like to have the specific teaching practices to guide your teaching?**

Probe

- *Was it useful that the practices were specific, rather than bigger, more general ideas about teaching and learning? Why? Why not?*
  - *If another teacher was to ask what you learned about in this project, how would you describe the teaching practices?*
  - *Was it useful to have teaching practices to guide your work with toddlers, specifically?*
4. **Would you recommend any of the teaching practices to other teachers? Why?**
    - *Can you identify which teaching practices were easier than others to implement?*
    - *Were there any teaching practices you learned about that surprised or challenged you?*
    - *Do you think any of the practices were more useful or effective for supporting toddlers' learning than others?*

**Professional Development**

1. **As part of this research project, you (1) participated in a series of three topic workshops, and three reflection workshops (2) between the workshops, you worked with a coach for one coaching session a week. Thinking about the workshops: Can you describe your overall experience and thoughts about the workshops?**

Probe

- *Did you learn anything new about toddlers' social-emotional learning and development?*
  - *Did the topic and reflection workshops support your learning? How?*
  - *Did any of the content challenge or surprise you?*
  - *Did the workshops seem relevant to your toddler room and the toddlers you work with?*
  - *Is there anything you would change about the workshops?*
2. **How helpful was it to look at and discuss the data (i.e., the line graphs that showed your implementation of the practices before and after coaching, and the bar graphs that showed your level of implementation of the ten practices in each area)?**

Probe

- *How did you feel when you saw the data?*
- *Did it surprise you?*
- *What sort of impact do you think seeing the data would have had on your teaching?*

3. From this list of key workshop activities and materials, can you identify how, or if, these activities and materials supported your implementation of social-emotional teaching practices?
4. Moving on to practice-based coaching (PBC): Each week, your coach observed you and you had a coaching chat, or debrief, together. Please tell me about your experiences with coaching.

Probe

- *Which aspects were most helpful?*

5. How helpful was it to have a goal and action plan to support your implementation of SETT practices?

Probe

- *How did you and your coach use this plan?*
- *Did you find anything challenging about using this plan?*

6. How helpful was it to have the coach give you specific data-based feedback (such as how many emotion words you used or what you said to support toddlers to join a group)?
7. From the list of coaching strategies here (provide list of coaching strategies), what would you say was the most useful to you in supporting your teaching practice during the coaching process?
8. Were there any strategies listed here you found least useful, or confronting to use?
9. How would you describe PBC to other teachers who are looking to improve the ways they foster toddlers' social-emotional learning?

Probe

- *Would you recommend PBC?*
- *What would the teachers need to expect?*
- *Is there anything you would advise they consider or think about before engaging in PBC?*

10. What impact do you think PBC had on your teaching?

Probe

- *What are you doing differently now than you were before the project?*
- *What was it that made you teach differently?*
- *How much has your teaching changed? Why? Because of the teaching practices? Because of the coaching?*

11. Have you noticed any positive or negative outcomes in your toddlers' social and emotional skills? What are some examples of these?
12. How worthwhile has it been for you to engage in PBC to support your use of SETT practices, when considering the effort you have made, the time you've spent and the progress you have/have not seen in your toddlers?

***Signal to the teachers that this is the conclusion of the interview and ask if there is anything else they want to share about project. Thank them for their participation.***