

**Breaking the Circle of One:
Reflection in Montessori Early Childhood
Centres in Aotearoa New Zealand.**

**by
Ana Pickering**

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Abstract

Little is currently known about how teachers in New Zealand Montessori early childhood centres reflect on Montessori philosophy and practice individually and collaboratively within teaching teams. The purpose of this research was to discover the current views about reflection on Montessori philosophy, the barriers teachers faced in reflecting and opportunities they identified for reflection. The impact that requirements for self review and teacher reflection have had on the approach taken to reflection, inquiry and professional learning by teachers in Montessori early childhood centres was also investigated. This research study used a mixed method case study and data was collected from teachers working in Montessori early childhood centres through semi-structured interviews with three groups and an online survey of individual teachers.

Participants placed high importance on reflection. However some participants were reluctant to critique Montessori philosophy; either because they viewed it as ‘valid’ or because they were concerned about being regarded as ‘heretical’ by other teachers. Participants felt safe raising questions within their teaching teams, but were more wary of debating and questioning philosophical issues with teachers in the wider Montessori community. Others regarded reflection as an opportunity to develop a shared understanding of Montessori philosophy and practice in their early childhood centre. Despite the participants’ perception that their team spent time reflecting on Montessori philosophy and relating this to daily teaching practice, it was still a challenge to make these reflective activities a priority in limited centre team meeting times. In addition, it appears that more support is needed to improve skills and knowledge about how the cyclical process of review or inquiry can engage with Montessori philosophy, inform centre philosophy, drive centre practice and improve outcomes for children. This study suggests that teachers would benefit from the creation of ‘safe spaces’ where they can engage with colleagues from their own or other Montessori early childhood centres in debate and discussion so that teaching practice becomes based on critical engagement with the underlying theoretical or philosophical principles of Montessori education.

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Chapter One: Introduction

1.0 Chapter Overview

This introductory chapter provides an overview of the study. The historical background of Dr Maria Montessori and the global Montessori movement is described, with a focus on the history of Montessori in New Zealand from around 1912 to the present day. The rationale for this research study is provided and the researcher's connection to Montessori education explained. The research questions are outlined and the chapter concludes with an overview of the thesis.

1.1 Background

Dr Maria Montessori was a major figure in the historical development of early childhood education in the twentieth century (Chattin McNichols, 1992; Hainstock, 1968; Helfrich, 2011; Standing, 1957/1998). Born in 1870, she was among the first women in Italy to graduate with a medical degree. By 1906 Dr Montessori had become an established scientist, champion of the rights of women and children, paediatrician and lecturer in anthropology and had studied 'deficient' children in asylums. The opportunity to work with 'normal' children came when she was asked to provide care for young children in a housing tenement in Rome. In early 1907 a small 'casa dei bambini' or children's home was opened with 50 to 60 children aged from three to six, and this is recognised as the beginning of the Montessori movement (Montessori, 1912/1964).

Dr Montessori was an eclectic borrower of ideas (Chattin-McNichols, 1992) and an ardent socialist and feminist (Chisnall, 2002). In the first casa dei bambini Dr Montessori combined the liberal ideas of her forerunners in the education of children; Rousseau, Pestalozzi and Froebel with the sense-based learning materials inspired by French physicians Itard and Seguin. Her focus on the physical and mental needs of the child appeared to meet their social and emotional needs (Chisnall, 2002; Feez, 2007; Shuker, 2005). The first casa dei bambini created huge interest and by 1908 curious visitors were arriving from around the world to visit the casa dei bambini in Rome and Milan. Chisnall (2002) explains:

Montessori began to focus on ways to increase independence and as she did so it appeared to meet a great need in the children and they began to reveal the

concentration and perseverance that arise when activities can be freely engaged in. (p. 19)

A series of 16 casa dei bambini became the “foundation and the catalyst for a great social and educational experiment” (Helfrich, 2011, p. 9). In 1909, Dr Montessori led the first teacher training course in Italy and recorded the experimental work of these original casa de bambini in *Il Metodo Della Pedagogia Scientifica Applicato All' Educazione Infantile Nelle Casa dei Bambini*, later re-published in English in 1912 as *The Montessori Method*. Dr Montessori’s ideas and ‘field-based curriculum and materials’ continued to be tested by trial and error by children and teachers in countries around the world (Lillard & Else-Quest, 2006).

From around 1910, Montessori casa dei bambini and schools were quickly established in both Europe and North America. In 1911 the Montessori system was adopted by the public schools of Switzerland and Italy (Chisnall, 2002). However by the 1920s only the occasional Montessori school survived in North America (North American Montessori Teachers Association, 2007). Montessori education endured in the United Kingdom and Europe and during the 1930s, Dr Maria Montessori became known not just for her work in progressive education, but also for her work on peace and social justice. Dr Montessori was nominated for the Nobel Peace Prize three times (1949-51) and died in the Netherlands in 1952.

1.1.1 First wave of Montessori in Aotearoa New Zealand. There was a remarkably quick spread of Montessori education from Rome to New Zealand and a ‘short-lived flirtation’ of the New Zealand education system with Montessori ideas began around 1910-12 (Chisnall, 2002; May, 2012; Shuker, 2005). The first recorded New Zealand teacher to have experienced this ‘new method’ of education was Margaret Slingsby Newman, from the Auckland College of Education. Miss Newman travelled in 1910 to Rome “...where she studied and observed the Montessori method and undoubtedly met Maria Montessori herself. She may have joined Montessori’s 1910 training course, the first of the annual courses the educator established for international educators” (May, 2012, p.78). The earliest mention of Montessori education being used in New Zealand classes was in 1912 (Shuker, 2005). There was also early interest by the newly-appointed Minister of Education, Sir James Allen, who visited Rome and met Dr Montessori in late 1912 (Chisnall, 2002). This early introduction of Montessori has

been described as the “first wave of Montessori” in New Zealand (Chisnall, 2002, p. 39).

The most notable early experiment with Montessori education in New Zealand was in the infant schools in the Wanganui District in 1915-21 (Miltich-Conway & Openshaw, 1988). Montessori ideas were visible in selected state primary schools including Kelburn Normal School in Wellington which used Montessori materials in their infant classes from 1915 to 1925 (Shuker, 2005). However May (2011) notes that from 1922 annual reports to Parliament no longer referred to the Montessori method in Wanganui and the fading of interest in state primary schools in New Zealand was similar to the decline in Montessori observed in the United States of America (USA) in the 1920s.

In New Zealand Montessori did not completely disappear as several Catholic primary schools retained Montessori in their infant classes until the 1940s and 1950s, yet May (2011) points out that “there was little visibility of these endeavours or reference to them in mainstream commentary of the time” (p.87). Aside from this “quiet work in the Catholic schools, Montessori was not to reappear in New Zealand until nearly forty years had passed” (Chisnall, 2002, p. 42).

1.1.2 The second wave of Montessori in New Zealand. Widespread dissatisfaction with the American education system (Daoust, 2004) and a search by educated mothers for “the best for their children” (Whitescarver & Cossentino, 2008, p. 2583) led to a major revival of interest in Montessori education in the USA from the late 1950s. However, similarly to Montessori in the first wave in New Zealand, there was little visibility of Montessori in mainstream education in the USA. The renewal of interest in New Zealand started in the late 1970s and was influenced by the revival in the USA in the previous decade. Parent interest in New Plymouth, New Zealand was heightened by a visit in 1974/75 by Elizabeth Hainstock, an American author of two books about Montessori education (O’Donnell, 1996). Other groups interested in Montessori education formed, when New Zealanders who had lived in the USA and Europe and come into contact with Montessori education returned home (Chisnall, 2002). Shuker (2005) attributes the initial stages of Montessori revival in both the USA and New Zealand to “passionate believers” (p. 132) like Nancy McCormack Rambusch in the USA and Binda Goldsbrough, who was a central figure in Montessori in New Zealand from the mid-1970’s.

By 1982 there were eight Montessori early childhood centres (Montessori Association of New Zealand [MANZ], 2007). The first Montessori primary class opened in 1988 and today there are approximately 120 early childhood centres, 10 state or state-integrated schools with Montessori primary classes, three independent Montessori primary schools and one state-integrated high school in New Zealand (Montessori Aotearoa New Zealand (MANZ), nd). Montessori education continues to grow globally and Association Montessori Internationale president Andre Roberfroid highlighted the recent surge in number of Montessori schools and teachers' education programmes in both Thailand and China (Roberfroid, personal communication, July 31, 2013).

1.1.3 Recent focus for Montessori education in New Zealand. There are variations in the understanding and practice of Montessori pedagogy and the brand 'Montessori' is hard to define around the globe. In New Zealand, the national association, Montessori Aotearoa New Zealand (MANZ) has faced challenges in addressing the variations in approach to Montessori education in New Zealand for several decades. The association's response was to provide professional development in the form of one-off workshops and conferences. In 2010 a working group convened by MANZ which was given the task of defining specific indicators of quality practice for Montessori early childhood centres and primary schools. The goal was to assist Montessori centres and schools in New Zealand to set goals and gain support for their 'continuing journey to excellence' (Montessori Journey to Excellence Working Group Minutes November, 2010).

The initial intention of the Montessori Journey to Excellence *Te ara ki huhuatanga* (MANZ, 2012) was to support centres and schools through a process of continuous self-review to achieve identified goals (Montessori Journey to Excellence Working Group Minutes November, 2010). In early 2012 the working group decided the Montessori professional community needed to be involved in co-constructing the Montessori Journey to Excellence *Te ara ki huhuatanga* and a pilot research programme began in 2013 that includes 12 early childhood centres and three primary classes. The pilot will investigate how the quality indicators articulated in the Montessori Journey to Excellence *Te ara ki huhuatanga* support teacher reflection and inquiry. This pilot will also examine opportunities for the Montessori Journey to Excellence *Te ara ki huhuatanga* to model a community of critically engaged reflective

practitioners as a culture of inquiry builds within and between centres/schools and teachers begin to share their inquiries, reviews, reflections and changing understandings.

1.2 Rationale for Research

There has been some research done in Montessori early childhood centres in New Zealand including three post-graduate studies investigating aspects of Montessori history in New Zealand (Chisnall, 2002; Chisnall, 2011; Shuker, 2005). In her Master's thesis Chisnall (2002) investigated the similarities and differences between the New Zealand experience and international Montessori development, interviewing founders of Montessori centres in New Zealand and contemporary Montessori practitioners and observing children in classroom settings to discover how teachers in New Zealand interpret Montessori philosophy in belief and practice, with the view of "aiding critical reflection and development" (p.ii). Shuker's (2005) PhD examined the historical evolution of Montessori education in New Zealand, drawing on the international history of the Montessori movement. She conducted a case study of a New Zealand Montessori early childhood centre to investigate the influence of contemporary government policies, how the development of the centre supported the implementation of Montessori's ideas and how these had been reworked in a different cultural and societal context. For her PhD Chisnall (2011) used critical theory to contextualise the historical background of the Montessori movement and to examine the currency of Dr Montessori's vision of social justice for the child. Using case studies she explored the experiences of newly qualified teachers from a degree programme (B. Ed (Montessori Early Childhood Teaching)) at AUT University in Auckland, New Zealand. Observations in Montessori early childhood centres in New Zealand were conducted to investigate the viability of Montessori pedagogy in the 21st century, the experiences of teachers and ways to support teachers in Montessori settings.

In another Master's thesis Freeman (2008) analysed the impact of a specific early childhood education policy requirement on the Montessori community and delivery of Montessori education in New Zealand. She conducted interviews and focus groups to investigate the unintended consequences of the new early childhood

qualifications requirement outlined in the 2002 Early Childhood Strategic Plan *Pathways to the Future: Nga Huarahi Arataki* (Ministry of Education, 2002).

However research into classroom practice and pedagogy in New Zealand is limited. One Master's thesis by Scanlan (2013) was a phenomenological study to understand how children and teachers in Montessori early childhood centres experience the phenomena of respect, with case studies in two Montessori early childhood centres. Patel (2012) conducted a small research study of 23 children in two Montessori early childhood centre on the efficacy of a Montessori approach on the development of literacy skills in four year olds.

Nonetheless, little is known currently about how individual Montessori teachers reflect on philosophy and practice individually or collaboratively within teaching teams or how requirements of the New Zealand education system for self review and teacher reflection in New Zealand have impacted on the approach taken to reflection, inquiry and professional learning by teachers in Montessori early childhood settings.

The title chosen for this study is 'Breaking the Circle of One' and comes from an idea suggested by Nuttall (2013) that teachers do not have to 'do it on our own' but that there is much to be gained when individual teachers and teaching teams share their inquiries, wonderings and experiences with colleagues from their own and other Montessori early childhood centres.

We have chosen a profession where our principal task is to change other people: that's what educators do. This is both an exciting and a terrifying responsibility. All I can say is, thank goodness we don't have to do it on our own. (Nuttall, 2013, p. 7)

This thesis aims to discover whether teachers want to 'break the circle of one' and what opportunities and support they need to participate in collaborative relationships as they reflect on philosophy and practice.

1.3 Researcher's connection to Montessori education and professional community

I have been involved with Montessori education in New Zealand since 1994, initially as a teacher in Montessori early childhood and primary classes and since 2002 as the executive officer of MANZ. I wrote the first draft handbook for *the* Montessori

Journey to Excellence *Te ara ki huhuatanga*, in consultation with the working group, and I am responsible for developing and delivering the pilot programme in conjunction with the pilot research partner and the Montessori Journey to Excellence Working Group. The ethical issues posed by my role within the New Zealand Montessori community are discussed in Chapter Three.

1.4 Research Questions

Three research questions were used in this study to explore the contemporary views of teachers in Montessori early childhood centres about reflection on philosophy and practice. The three research questions are:

1. What views do teachers in Montessori early childhood centres currently hold about the importance of reflection on Montessori philosophy and practice?
2. What enablers and barriers to reflection are identified by individual teachers and teaching teams from Montessori early childhood centres?
3. What impact have the requirements for self review and teacher registration in New Zealand had on reflection on Montessori philosophy and practice by individuals and teaching teams?

1.5 Overview of Thesis

This thesis begins with a literature review that explores research on reflection, self-review, teacher inquiry, and professional learning and on Montessori philosophy and education. The methodology chapter justifies the research methodology chosen and details the data collection for this study. The three findings chapters present the data collected for each research question. The next chapter will discuss the implications of the findings and link these to literature. Lastly, the conclusion chapter will make specific recommendations for centre managers and leaders and identify areas for further research.

Chapter Two: Literature Review

2.0 Chapter Overview

The purpose of this literature review was to gain an understanding of current perspectives on the role of reflection in education generally and in Montessori education specifically. This review drew on literature from educational research on reflection, self-review, teacher inquiry, and professional learning. International and national literature on Montessori philosophy and education was also examined to discover the impact that working within the century-old Montessori tradition had on reflection and inquiry by Montessori early childhood teachers and teaching teams. The literature review concludes with an identification of gaps in the literature around reflection by Montessori teachers in contemporary early childhood centres.

This chapter is divided into eight sections; section 2 explores the importance of reflection in teaching and learning; section 3 examines reflection as a tool to link theory and practice; section 4 focuses on professional learning and teacher inquiry; section 5 investigates support needed for reflection and dialogue; section 6 focuses on tensions in implementing the Montessori ‘model’ and the final section looks at whether reflection and experimentation is integral to the tradition of Montessori education and the role that teacher inquiry can play in building an evidence base for Montessori education.

2.1 The importance of reflection in teaching and learning

Reflection has long been regarded as central to teaching and learning (Dewey, 1933) and essential for generating new professional knowledge (Bary et al, 2007; Johansson, Sandberg & Vuorinen, 2007; Loughran, 1996; Sweeney, 1999). The concept of the reflective practitioner was developed by Schön (1987) who describes the moment-to-moment intuition that guides the teacher’s actions as ‘reflection-in-action’ and the systematic and deliberate thinking about one’s actions which can bring tacit knowing into consciousness as ‘reflection-on-action’. Building on Schön’s work, Killon and Todnew (1991) propose that teachers undertake reflection for the more practical purpose of guiding future action and add a further dimension to Schön’s work with the idea of ‘reflection-for-action’. Combining in-action, on-action and for-action encompasses the past, present and future and generates knowledge to inform teaching.

Thinking about teaching requires teachers to regard themselves as learners and to be open to “unpack their taken-for-granted beliefs about teaching and learning, reflect on the merits of their habitual practices and explore alternatives” (Education Review Office, 2012, p. 26). Giroux (1983) describes a process of ‘sedimentation’ to explain how new ideas build on old ideas, just as geological strata are layered one of top of the other and Hill (2011) also uses this metaphor to explain that when the theories that are espoused to lie at the heart of practice are closely examined older ideas are often found to still have a “grip on the way things are done” (p.8). These ‘older ideas’ can be likened to ‘taken-for-granted’ practices and Hill (2011) suggests it is up to practitioners to reflect critically upon their existing theoretical knowledge and the way in which this is sedimented into their daily practice and interactions with children as learners. O’Connor and Diggins (2002) also address the issue of teaching as a habitual practice. They define the reflective process for New Zealand early childhood teachers as “stop-think-change” and propose that using these three points cyclically will ensure teachers do not “teach from habit” (p. 13). Reflection therefore is a process that enables individual teachers to become more self-aware of their theoretical knowledge base and its impact on their teaching practices.

The aim of reflective practice is often for ‘improvement’ and reflection is seen as necessary to bring about changes to teaching practice and improved outcomes for children (Bary et al, 2007; Cardno & Reynolds, 2008; ERO, 2012). While Gibbs (2006) agrees that reflecting on one’s practice may bring about positive changes in how teachers teach, he feels the true essence of the reflective process is lost when it is limited to ‘evaluation’ of lessons, programming and teaching techniques. Loughran (2002) also cautions that being encouraged to reflect may not necessarily lead to effective reflection and warns against rationalisation of practice masquerading as reflection in education, yet Taylor (2007) points out that the current use of reflective practice in early childhood education in New Zealand may be limited to making “moderate rather than ‘transformative change’” (p. 38). For reflection to bring about transformative change Fleet and Patterson (2009) ask teachers to be prepared to question the taken-for-granted and draw attention to the “silences lurking under everyday practices” (p. 21) and even though certain early childhood practices are familiar, this does not mean that current practice should be left unexamined. However it

requires early childhood educators to move from a passive role to the more complex role of critically engaging with their pedagogy.

Critical engagement requires teachers engage in individual praxis to decide for themselves which issues are the most important and the strategies that work best in their own classroom. Hinchey (2004) explains that there are no simple solutions for teachers:

...to the chagrin of many traditionally educated teachers, critical theorists and educators have no standard curriculum and pedagogy to offer, instead of saying, as traditionalists so often do, 'Here's the way to do xyz in the classroom', critical educators speak instead of praxis; action based on reflection. (p. 20)

It has been suggested that each society has its 'regime of truth' or discourses which it accepts and which function as true (MacNaughton, 2005). Discourses in early childhood education provide a framework for how people think about childhood and have been influential in shaping early childhood policies. Fleer (2003) has raised her concern with some of these dominant discourses in early childhood:

The history we have inherited includes structures such as learning centres or areas within a pre-school (e.g. block corner), beliefs such as child-centredness, pedagogical practices such as play-based programs, adult-child interactional, patterns such as holding infants to face the adult for maximum communication, and using active questioning with five year-olds to find out what they know. However, are these taken-for-granted views and beliefs about best practices in early childhood education relevant to all children from all cultures? (p.65)

When the dominant discourse becomes officially sanctioned and part of policy, it not only governs the desirable ways for early childhood teachers to think, act and feel and but also the correct way to understand and organise children (Alloway, 1997; Canella, 1997; MacNaughton, 2005). The 'truth status' of dominant discourses makes it hard to question and "hard to innovate" (MacNaughton, 2000, p. 169) and may lead early childhood teachers to become complacent and believe that "what they know and do is sufficient" (Taylor, 2007, p. 165). Bringing a critical focus to our individual and collective practice of early childhood education is essential and Dalli (2010) reminds that being self-critical involves scrutinising our own individual and collective attitudes and assumptions. She suggests that changing established ways of doing things requires vision and strength and she shares advice from Fennimore (1989, p. 22 as cited in Dalli

2010, p.70) that “Educators should see their careers as a series of challenges that require them to be active participants and powerful agents of change.”

Reflection may provide a powerful tool to enable teachers to go beyond rationalisation of current teaching practice, to query taken for granted teaching practices and experience reflection as a transformative experience.

2.2 Reflection as a tool to link theory and practice

Teachers engaged in ‘teaching’ already possess some theory of education yet Kincheloe (2008) describes the relationship between theory and practice as “slippery and complex” (p. 120). Carr and Kemmis (1993) argue that gaps between theory and practice are “closed by the practitioners themselves formulating decisions in the light of the framework of understanding that they already possess” (p. 115) but Nuttall’s (2004) case study research in a New Zealand early childhood centre showed a divide between the teachers’ official definition of their centre’s curriculum and what they actually did daily in their teaching practice. The relationship between the espoused theories and actual teaching practices was also investigated by Reynolds (2007) who found that Australian kindergarten teachers are keen to defend the integrity of their pedagogy and practice. However she argues that in order to do this teachers’ need to know “why they do what they do” and “practice what they preach” (p. 155) and suggests the gap between theory and practice requires constant scrutiny by teachers. Theory and practice must be integrated so that theoretical knowledge is used to inform on-going, daily decisions about practice.

In addition to theoretical knowledge, teachers require experience and practical wisdom. Concepts drawn from Aristotle and Plato have been used to differentiate between *episteme* - theoretical understanding, and *phronesis* - practical wisdom or the ability to act wisely (Korthagen & Kessels, 1999 as cited in Lunenberg & Korthagen, 2009, p. 226). Chisnall (2011) also makes use of these terms to explain that *phronesis* is derived from common-sense observation and experience in practical, everyday life. Experience is important in developing practical wisdom or *phronesis*, but Lunenberg and Korthagen (2009) propose that a profound theoretical knowledge is also necessary and suggest a triangular relationship between theory, practical wisdom and experience exists (see Figure 1).

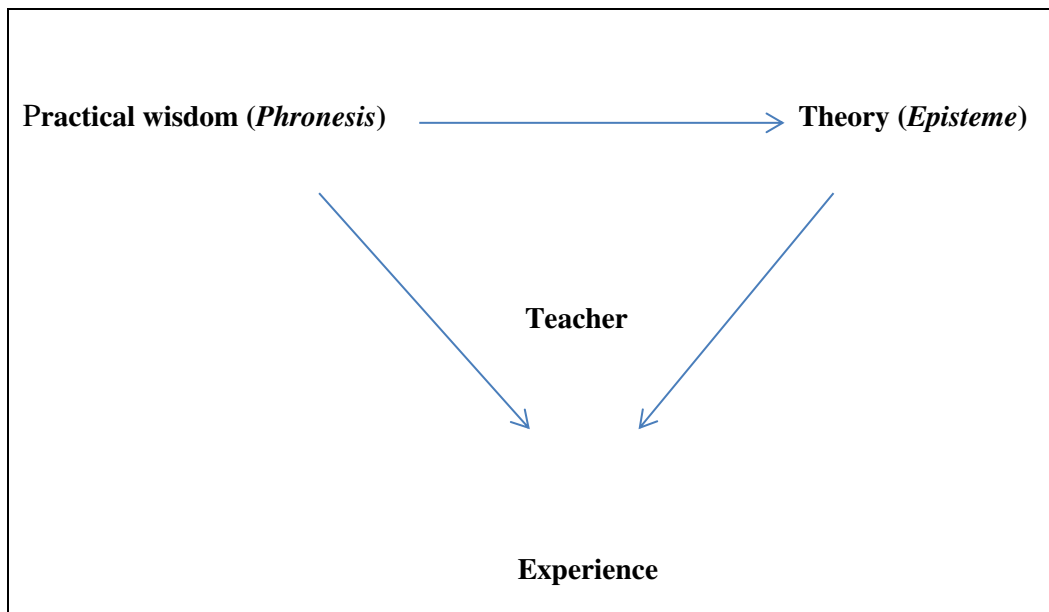


Figure 1: The triangular relationship between practical wisdom, theory, and experience (Lunenberg & Korthagen, 2009, p. 229)

Lunenberg and Korthagen (2009) consider that these three different elements are brought together or ‘embodied’ by teachers in their daily practice in a “complicated non-linear process” (p. 229). Furthermore, they argue that reflection provides the “vital instrument” for making the connections between the elements of experience, theory, and practical wisdom (p. 235).

The gap between espoused theory (theory-of-action or theory-of-practice) and the theory-in-use was described by Argyris and Schön (1974) who proposed that it is the ‘theory-in-use’ that governs the actions of an individual, which may or may not be compatible with his/her espoused theory or ‘theory-of-action’. Furthermore Argyris and Schön explain that we cannot learn about a teacher’s theory-in-use by simply asking him/her but must discover it through observation of the teacher’s actions. In addition, Timperley (2008) confirmed that without a thorough understanding of the theory:

Teachers are apt to believe they are teaching in ways consistent with the promoted practice when in fact the relationship between theory and practice is actually very superficial—and any changes they make have little impact on student outcomes. (p.11)

Misalignment of theory-of-action and theory-in-use can also occur at the centre team level and Watson and Williams (2011) propose that early childhood teachers must be

continually working on aligning centre practice with centre philosophy, by challenging practices and addressing inconsistencies.

According to Atkin (1996) aligning practice with values and beliefs is a critical process in teaching and learning. Personal values and beliefs impact on an individual teacher's interpretation of theory and influence their practice decisions, however Tann (1993) describes the individual's values and beliefs as existing at an implicit level that may be "difficult to unearth and examine" (p. 56) and difficult to change (Lortie, 1975 as cited in Bonne, 2013). Goodfellow (2003) agrees that intrapersonal qualities such as feelings, attitudes, beliefs and values are largely invisible. She describes how "personal qualities and experience lie below the surface of our doing" yet "drive who we are and what we do" (p. 50), influencing the everyday practice decisions of early childhood professionals. Unearthing and becoming aware of the impact of personal values and beliefs is challenging. Grey (2010) proposes that early childhood teachers in New Zealand need more support to develop an awareness of the values and beliefs that underpin their personal practice.

Nuttall (2004) outlines two strategies that teachers in an early childhood centres in New Zealand use when challenged to examine misalignments between their theory-of-action (espoused theory) and their theories-in-use (teaching practice). The first was an avoidance technique she calls 'grounding'; where teachers quickly shifted from discussing abstract ideas about centre philosophy and practice to focusing on the concrete realities of the workplace. The second she calls 'co-opting'; where the teachers adopted key terms from "specialised curriculum discourses" which enabled them to indicate a link between the discourse and their own practice "without having to change existing practice" (p. 68). Nuttall argues that the effect of co-opting and grounding was to limit the exploration of the relationship between the centre's espoused curriculum (or the teachers' shared theory-of-action) and the centre's curriculum in practice (or teachers' theories-in-use). However, Cherrington (2011) argues that being able to reflect thoughtfully on practice requires sophisticated reflective skills and that variability in the ability of teachers is likely to exist influenced by factors such as their preparation for reflection by their teacher education programme, their personal attributes and the climate that exists within their centre. She acknowledges the difficulty that qualified and experienced teachers have with articulating their own practice and queries if it is realistic to expect all teachers to reflect on teaching.

Reflective practice attempts to link theoretical knowledge, experience and practical wisdom so that ‘espoused theories’ are evident in daily practice and the gap between theoretical and practical knowledge is reduced. It can be a tool to align centre philosophy and centre practice and requires teachers to engage in the challenging task of examining their personal values and beliefs about teaching and learning and articulating their philosophy and practice.

2.3 Professional learning: creating new knowledge through reflection and inquiry

If teachers are also regarded as learners, then Nuttall and Edwards (2009) suggest that the term ‘professional learning’ rather than ‘professional development’ should be used, with a focus on the experience and expertise of practitioners. Yet professional development remains the familiar term that describes the continued learning of the adult. Traditionally, in relation to teaching, this involves a teacher leaving the workplace to attend a seminar or conference and receiving “decontextualized knowledge from an expert” (Grey, 2010, p. 219). Wansbrough (2012) argues that it is debatable how this one-off workshop approach alone can make a difference for children’s learning and the relevance and contribution of one-off ‘quick-fix’ experiences for teachers is strongly challenged (Cherrington & Thornton, 2013; Fleet & Patterson, 2009; Groundwater-Smith & Mockler, 2009; MacNaughton, 2005). In addition, Nuttall (2013) argues that there is little evidence that the tools used to measure professional development of individual teachers; professional development plans, individual appraisals, and key performance indicators have “made a serious contribution to the development of practice in early childhood education” (p. 1).

Hatherly (2011) calls for a more flexible approach to professional development of teachers that values prior knowledge and experience, takes account of context and is dynamic rather than prescribed. To be effective professional development needs to incorporate the teacher’s own aspirations and knowledge and requires sustained investigation in the workplace (Groundwater-Smith & Mockler, 2009; Hatherly, 2011; Mitchell & Cubey, 2003). This view is supported by Fleet and Patterson (2009) who argue that professional learning of teachers would be enhanced by collaboration and dialogue with colleagues. Cherrington and Thornton (2013) further suggest that continued professional development of teachers that uses evidence drawn from effective

professional learning is likely to have more impact on teaching and learning than “short-term offerings” (p.12). They highlight that this professional learning approach requires higher levels of skills and knowledge; for example critical reflection, coping with conflict and pedagogic content knowledge and theory.

Pollard (2010) maintains that teachers should be the main creators of professional knowledge as the basis of their practice while Edwards (2009) argues that teachers who actively research the teaching and learning process within their own educational context are more strongly positioned than a “student” attending professional development (p. 85). In the New Zealand context, McLeod (2000) proposes that it is time for early childhood teachers to move beyond a common sense approach to working with children and to move toward professional attitudes and knowledge based on research, teacher observation and critical reflection. Moss (2006) agrees with this view of the teacher as researcher and regards research as part of everyday practice being conducted continually by teachers, children and parents. He advocates for an early childhood workforce where teachers engage with different theories from “many different fields...through frequent border crossing” (p. 36). Positioning teaching as an inquiry or research process enables teachers to pose and answer their own questions and Dana and Yendol-Hoppey (2009) also see teacher inquiry as a cycle of questions and answers:

Inquiring professionals seek out change by reflecting on their practice. They do this by posing questions or “wonderings,” collecting data to gain insights into their wonderings, analysing the data along with reading relevant literature, making changes in practice based on new understandings developed during inquiry, and sharing findings with others. (p.6)

Effective professional learning based on inquiry into one’s own practice enables teachers to develop a sense of ownership in the knowledge created and contributes to real change in practice (Groundwater Smith & Mockler, 2009) and enables teachers to become more aware of their own thinking, actions and beliefs (Mitchell & Cubey, 2003). Professional learning requires professional dialogue and offers opportunities for teachers to instigate change where “working practices, knowledge, theories, experiences and contexts of teachers [are] valid starting points” (Nuttall & Edwards, 2009, p. 134). Teacher inquiry recognises the professional educator as a “powerful, competent learner” (Fleet & Patterson, 2009, p. 14) and enables teachers to identify a dilemma of

practice, create a question to be answered, gather data about the issue, analyse it and make decisions about pedagogical changes.

Moving from the ‘professional development’ approach using external experts to a ‘professional learning’ approach using inquiry enables teachers to engage in professional learning within their own particular teaching context, to generate new knowledge and to find answers to their own questions as individuals and collaboratively with colleagues.

2.3.1 Inquiry as professional learning in New Zealand early childhood centres. The purpose of teacher inquiry is to provide an intentional, systematic and rigorous process for reflection about teaching and learning to inform decision making for future action (ERO, 2011). The term ‘teaching as inquiry’ is not commonly part of the terminology used in early childhood settings in New Zealand, however early childhood teachers are expected to reflect on what their intended outcomes for children are, and what they know about how well children are achieving those outcomes (Education Review Office (ERO), 2012). The New Zealand early childhood sector is urged to be reflective about teaching practice and early childhood centres are required by the Ministry of Education (1999, 2006) and ERO (2009, 2012) to show evidence of reflection through self review.

The *Self Review Guidelines for Early Childhood Education Nga Arohaehae Whai Hua* were released in 2006 and new early childhood regulations came into effect in 2008 with licencing criteria that made it mandatory for early childhood centres in New Zealand to have an on-going, recorded process of self review. Self review processes enable early childhood centres to reflect on learning and teaching practices, philosophy, policies and procedures alongside external review by the ERO. Self review can be either spontaneous, in response to a question or issue that arises in daily practice, or planned where reviews are done systematically to ensure all areas of practice are reviewed over time and have strong links to the centre’s strategic plan. Self review or inquiry may be an individual or team process to clarify meaning and may lead to new understanding and viewpoints that impact on future practice (Grey, 2010).

In addition to self review, the New Zealand Teachers Council requires all registered teachers to critically reflect individually on their teaching practice. This is made clear throughout the 12 Registered Teacher Criteria (RTCs) which provide a

framework for on-going professional practice and learning (New Zealand Teachers Council, 2010). After gaining their teacher qualification, newly graduated teachers are required to gather evidence that they have met the RTCs in order to move from being a provisionally registered to fully registered teacher, during a two-year period of induction and mentoring. Fully registered teachers are expected to continue to use the RTCs as a compass for their on-going learning and to maintain their teacher registration throughout their career.

Through reflection, a deeper understanding of the self; how one acts, what one knows and does not know and gaps between what one says and does can be discovered. Being reflective requires the individual and the group of teachers to be open-minded to identifying problems within practice, to be willing to open practice up for scrutiny and as Berry (2009) described be “prepared to take risks and expose oneself as vulnerable” (p. 308).

Self review and the process of teacher registration demand that teachers reflect and both processes support and value on-going professional learning, helping individual teachers and teaching teams to construct their professional knowledge of practice.

2.4 Support for reflection

Plato proposed that any learning of which we are capable is gained by reflection on our own beliefs and is best accomplished by critical discussion with others (as cited in Lebermann, McDonald & Doyle, 2006, p. 45). Grey (2010) and Taylor (2007) both suggest that it is essential to make teaching a shared rather than individual pursuit and in an early childhood context it is “by constructing an authentic community of practice to engage in dialogue to build a shared understanding of practice that a solid foundation of children’s learning is formed” (Grey, 2010, p. 275). The idea that teachers need to engage in dialogue with others was supported by Cherrington and Thornton (2013) who highlight that effective professional learning needs to be supported by coaching or group collaboration to enable teachers to receive feedback, be challenged and to discover alternative perspectives.

Engaging in dialogue with colleagues is an important aspect of being a teacher, however Shields (2007) argues that educators often want to embrace the concept of dialogue, but consider that it takes too much time when action is needed. She notes this

is contrary to the notion of 'dialogue' suggested by Bakhtin who viewed it as ontological or a way of life. "A way of living in openness to others who are different from oneself, of relating to people and ideas that remain separate and distinct from our own (as cited in Sheilds, 2007, p. 65). Bakhtin described the dialogic space as a "process of meaning-making where authentic questions and ideas are shared, explored, challenged, and supported" (1981 as cited in Basmadjian, 2008, p. 14). Dialogic space is therefore an opportunity to continuously explore one's own understanding and the understanding of others so that new knowledge can emerge, and requires teachers to be open to the multiplicity of voices.

Early childhood communities include children, teachers and extended families from a range of political, cultural and social contexts. hooks (1994) comments that the absence of a feeling of safety often promotes prolonged silence or lack of engagement by people involved. An attitude that declares 'this is how we do things here, like it or go somewhere else' can silence children, parents and teachers and prevent them from sharing of their own world-views. Recognition must be given to the importance of emotionally-safe spaces for the risk-taking inherent in personal professional disclosure (Fleet & Patterson, 2009) and the internal processes necessary to build trust (Stoll, 2006) between all stakeholders in an early childhood centre.

Time is essential for professional dialogue and learning, yet lack of time is a constant constraint for teachers in early childhood centres (Cherrington & Thornton, 2013; Grey, 2010; Taylor, 2007). There are challenges for teachers to finding time within working hours to talk to each other and Searle found that non-contact time in early childhood centres often focused on administrative tasks related to compliance, rather than on reflection for professional growth and renewal (2009 as cited in Grey, 2010 p. 233). This finding was confirmed by Healy (2012) who studied the opportunities for professional dialogue within one early childhood centre in New Zealand and concludes that while professional dialogue can enhance teaching practice and "provide intermittent opportunities for teachers to link theory and practice" (p.118), the lack of time for professional dialogue remained a problem.

In addition to time, a culture of reflective practice needs to be nurtured so that teachers have the 'breathing space' to reflect individually and feel comfortable to debate and discuss ideas with colleagues. Mitchell (2003) maintains that if early childhood centres are to be learning communities for teachers as well as children and

parents then there needed to be opportunities within the work environment for reflection and she also suggests that the work environment must provide an “intellectual space” (p. 26) to foster professional dialogue and debate between professionals. Fleet and Patterson (2001) agree that sustained changes in practice benefit from a ‘critical mass’ to confront practice and explore new ideas together. Taylor (2007) also found that the freedom to have discussions where “questions could be left unanswered” (p. 229) led to a deeper and broader exploration of education and thinking that “expanded beyond the familiar” (p. 235).

In summary, if reflection is acknowledged as an important aspect of teaching, then support is needed to enable teachers to engage in dialogue, to question and to collaborate; time and safe spaces for professional learning are essential.

2.5 Tensions in implementing the ‘original Montessori model’

For many teachers involved in Montessori education there is a tension and uncertainty between faithfully implementing an educational ‘method’ that is more than 100 years old and critically reflecting on Montessori philosophy and practice (Beatty, 2011; Turner, 1992; Whitescarver & Cossentino, 2008). Contemporary Montessori education has been described as following “time-honoured practices of the founder” by Whitescarver and Cossentino (2008) who suggest that it may be difficult for Montessori teachers to remain “pure to their tradition” (p. 2595). These terms ‘time-honoured’ and ‘pure’ may give the message that Montessori philosophy is regarded as immutable. However, Edwards (2000) warns of the “the dangers of closed communities of practice that are forever recycling old and tired knowledge and the challenges presented when communities are required to change rapidly in order to accommodate new external demands” (p. 188). Fler (2003) proposes that all of early childhood education is in need of examination:

It is timely that we critically examine our own profession and question what we have inherited from our forebears, the histories that we re-enact with each generation of early childhood teachers, and deconstruct the ‘taken-for-granted’ practices that plague our field. (p. 64)

Fler’s (2003) comments are also relevant to Montessori education. Turner (1992) also supports the need for further examination and questioning by suggesting

that the dilemma for Montessori teachers is the choice of “replicating a model and moving children through a curriculum on one hand, or creating a responsive environment on the other” (p. 41). The replication model with its taken-for-granted practices in Montessori education may exist because of “the high expectations Dr Montessori held for her teachers have sometimes translated into rigid practices as they seek to follow the tradition handed down to them” (Chisnall, 2011, p. 55). This rigid practice is also described by Malm (2001) who found some Montessori teachers in Sweden tended to believe there was a “right and wrong way of doing things” (p. 14) and proposes that this may have led to a reluctance for Montessori teachers to experiment or to change the existing order of things. However, Wentworth (1998) warned about the consequences for the Montessori movement if the method became so rigid that one way of teaching is considered Montessori whereas another way is viewed as not being Montessori:

There are some adherents of Montessori teaching who think that they are doing good service to the method by trying to protect it from all attempts to modify or improve it, however slightly...What really counts in Montessori education is the ability of the teacher to help the development of a normalised personality in children through the process of free learning. (p. 110)

Cossentino suggests that this ‘rigidity’ is commonplace describing Montessori pedagogy ‘ritualized’ practice and compares Dr Montessori’s definition of children’s work in a Montessori classroom to a “catechism” (2009 as cited in Beatty, 2011 p. 398). Kripalani (1981), an Association Montessori International trainer, who worked with Dr Montessori and Mario Montessori in India in the 1940s, agrees with this view of rigid practice. She contends that the emphasis is often on the presentation of the materials, therefore the principles underlying the equipment are missed, with the result “that the child is lost in the shuffle” (p.30). This view was also shared by Binda Goldsbrough, a central figure in the resurgence of Montessori education in New Zealand from the mid-1970’s (Shuker, 2005). Goldsbrough knew Dr Montessori personally, as she worked as an assistant demonstrator on two Montessori international courses in 1939 and 1946 in London. She stated that Dr Montessori did not want her approach to be called a ‘method’ and that Dr Montessori’s vision was to “reveal the life of the child” not to “set down (a) prescription” (Shuker, 2005, p. 69). In agreement Miller (2002) suggests that the ideas of Dr Montessori have been merely “packaged and practiced as a ‘method’

replete with cleverly designed materials and classroom routines” (p. 207) rather than the enactment of the more profound educational vision that Dr Montessori proposed.

Miltich-Conway and Openshaw (1988) describe “selective borrowing” from Montessori philosophy in infant schools in New Zealand after World War One (WWI) as leading to a “good deal of uncertainty amongst teachers and inspectors about which features of Montessori to emphasise” (p. 196). This selective borrowing or ‘co-opting’ from Montessori philosophy and uncertainty about Montessori practice even in early childhood centres that identify themselves as ‘Montessori’ continues to exist. In addition, teachers may interpret Montessori philosophy in a way more consistent with their own beliefs and values and dismiss any aspects of Montessori philosophy that they either may not understand or do not agree with (Daoust, 2004). The recent defining and publishing of Montessori quality indicators in the Montessori Journey to Excellence *Te ara ki huhuatanga* (MANZ, 2012) and the Montessori Quality Assurance Programme (Montessori Australia Foundation, 2010) recognises the on-going need to provide guidance for teachers implementing Montessori philosophy in different settings.

Beatty (2011) describes Montessori education as a model learnt by teachers through a tightly-scripted intensive training and comments that it would be interesting to see “if new Montessori research and a climate of public acceptance help persuade more teachers to follow the original script, or increase modification” (p. 409). The concept of ‘fidelity’ or adherence to the original script or ideal model was applied to Montessori education by Lillard (2012) who proposes that variations in Montessori implementation fidelity leads to inconsistent outcomes from Montessori programmes. A year-long study of 172 children examined the outcomes between high fidelity and low fidelity models of Montessori education. Fidelity was measured by the percentage of the children using Montessori materials and Lillard (2013) classifies Montessori programmes as ‘classic’ or ‘supplemented’. In addition to the specific Montessori materials and activities integral to Montessori education, classes classified as ‘supplemented’ also had conventional early childhood materials such as puzzles, commercial games and workbooks. Lillard (2012) reports that children in ‘classic Montessori programmes’ had better outcomes in terms of executive function, problem solving social skills and academic achievement. However she acknowledges it is important to gain a greater understanding of other aspects of the classic programme, for example differences in teacher behaviour between classic and supplementary

Montessori programme that may also contribute to the differences in outcomes for children.

Researching classroom practices in the early *casa dei bambini* reveals variations in practice during the time of early experimentation by Dr Montessori and the first ‘Montessori directresses’. One example is the variation in the length of time children attended the early Montessori classes. In her first book, *The Montessori Method* (1912) Dr Montessori describes the schedule of the day in the first *casa dei bambini* and advised that the hours may be “very long, occupying the entire day” (p. 120). However White (1914) observed in several early classrooms in Rome and Milan and noted in one class that the children only attended for mornings:

There were only just over 20 children, and the school hours were from nine till twelve. With a morning session of three hours only it is not possible to do for children what can be done for them with a seven-hour day. (p. 128)

This example provides some evidence that even in the earliest days of the Montessori movement, the length of day was variable between Montessori *casa dei bambini*. There may be other early evidence that shows there was never a fixed or ‘authentic’ model for Montessori practice and that experimentation and modification occurred from the earliest days. This argument is supported by Miltich-Conway and Openshaw (1988) who suggest that Dr Montessori’s philosophies and techniques have been modified and adapted to suit different educational and cultural expectations. Shuker (2005) also concludes that integration of Montessori within any country results in a “culturally specific Montessori education” despite Montessori education being a global movement that “transcends national boundaries” (p.iii). Lillard (2012) acknowledges the ‘flip side’ of fidelity is that longevity is more likely to occur when the original model is flexible and can adapted to the culture and circumstances in which it is implemented. The endurance of Montessori education over the last 107 years may be due to its adaptability to time, place and culture even though some loss of ‘fidelity’ may occur. Duckworth (2006) makes the point that while questions can be raised about how far one can compromise or change the Montessori method and still remain Montessori she feels that the “perfect should not be the enemy of the good” (p. 47).

In summary, the notion of an ‘authentic Montessori method’ has resulted in tension and uncertainty for teachers in implementing Montessori education. This

replication approach has been criticised by some educators (Beatty, 2011; Chisnall, 2011; Malm, 2001; Miltich-Conway & Openshaw, 1988)) who either argue that experimentation was an integral part of Dr Montessori's approach or that it should be part of the approach taken to Montessori education today. Variation in interpretation of the Montessori model may have existed early in the history of Montessori movement and it can be argued that the flexibility in the 'method' may have contributed to the longevity of Montessori education and its adaptability to different cultures.

2.6 The role reflection and inquiry in Montessori education

The challenge facing Montessori teachers is finding a balance between experimenting or weaving a new pattern in the Montessori 'whariki' or woven mat (Chisnall, 2002) and maintaining the fidelity of Montessori education. Feez (2007) provides some guidance about the role of on-going critique in Montessori education with the reassurance that Dr Montessori intended that teachers keep inquiring about their practice despite a tendency within the Montessori movement to "treat Montessori's texts as inspired canon, rather than as records of pedagogical experiments and observations worthy of verification" (p. 36). Chisnall (2011) also clarifies that Dr Montessori encouraged teachers to continue experimenting once they had "grasped and trialled the fundamentals of the approach" (p. 342) and urged them to see this pedagogy as an "on-going work of observation and research" (p. 335).

Cossentino (2009) considers that it is the unique link between technique and ideology that gives vitality to Montessori pedagogy and enables the Montessori method to attain its goals of fulfilling the human potential. She proposes however that this can only happen when Montessori teachers know how to use their "pedagogical script" to guide rather than constrain practise (p. 526). Kahn (1990) also suggests that "where there is interpretation there is more than one right answer" and urged each generation of Montessori teachers to talk to each other, discuss and debate and also warned that when "dialogue is repressed, lazy habits dominate and the teacher stops seeing the joy and freshness in trial and error" (p. 3). He describes Montessori pedagogy as an applied art with the teacher as decision maker, a role that requires on-going reflection.

Ungerer (2012) suggests that Montessori teachers, associations, schools, teacher education programmes and researchers are all part of a collaborative process of

continually co-creating Montessori education. However, he used the metaphor of the Montessori orchestra to urge teachers to keep in mind the “noble melody of Montessori” (p. 7) as they improvise and play their individual instruments.

One section or one player out of tune in our Montessori orchestra would result in a harsh, discordant mixture of sounds. I do not expect various Montessori “players” to stop playing their chosen instruments. All I am asking is that every Montessori player keep in mind the noble melody of Montessori. Achieving harmony and unity in our community, both globally and locally, will have a significant impact in strengthening and expanding the Montessori Movement. (p. 7)

It seems there is still much to be gained from engaging in critical reflection about Montessori philosophy and more value in continuing to “mine the gold” of Montessori education (Rathunde, 2001, p. 12).

2.7 Chapter Summary

This literature review explained the importance of reflection as a process to link theory and teaching practice. Literature has been examined that shows how reflection and inquiry are essential aspects of professional learning that can lead to the generation of new knowledge by teachers within their own teaching context. The requirement in New Zealand for self-review and teacher reflection has been outlined and importance of teacher inquiry and reflection as an essential aspect of professional learning has been discussed.

The support required to enable reflection to go beyond the familiar and the importance of dialogue and collaboration with colleagues has been highlighted. The tension between faithfully implementing a prescriptive educational ‘method’ and critically examining Montessori philosophy has been noted. Some literature that provides teachers with permission to engage in on-going critique of Montessori philosophy and practice has been shared.

Currently there is no literature regarding how teachers in Montessori early childhood centres engage in reflection on Montessori philosophy. This study considered how reflection in Montessori early childhood centres currently occurs, whether teachers regard reflection as part of their role as Montessori practitioners and

what support and stimulus for reflection they experience within their early childhood centres.

Chapter Three: Methodology

3.0 Chapter Overview

This investigation used a mixed method case study to explore reflection by teachers in Montessori early childhood centres. The choice of a constructivist paradigm used and the mixed method case study research design are explained in this chapter. The research questions, research design, data collection methods, data analysis, participants, ethical considerations, and the issues of trustworthiness are outlined.

3.1 Research Questions

The purpose of this study was to examine the importance of reflection, to identify enablers and barriers and the impact of requirements in the New Zealand education system on reflection by teachers in Montessori early childhood centres. The methodology was designed to answer the following three research questions:

1. What views do teachers in Montessori early childhood centres currently hold about the importance of reflection on Montessori philosophy and practice?
2. What enablers and barriers to reflection are identified by individual teachers and teaching teams from Montessori early childhood centres?
3. What impact have the requirements for self review and teacher registration in New Zealand had on reflection on Montessori philosophy and practice by individuals and teaching teams?

3.2 Research Paradigm

This study is situated within the paradigm of constructivism; which is the belief that there is no independent truth, but that reality is socially constructed (Robson, 2002). The key assumptions of the constructivist paradigm outlined by Burr (2003) include a critical stance toward taken-for-granted knowledge, that understanding is specific to time in history and cultural setting, and that social processes construct and sustain knowledge. This paradigm views 'truth' as a varying concept created by community narrative, subject to temporal and historical conditions (Guba & Lincoln,

2008). Constructivism “sees truth and meaning constructed and interpreted by individuals” (Gray, 2009, p. 201) and in this study the perspectives and experiences of teachers were sought to discover the multiple realities that exist (Denzin & Lincoln, 2008). Using the constructivist research paradigm allowed the teachers “lived reality or constructed meanings” (Mutch, 2005, p. 43) to be discovered as teachers’ own stories of their experiences teaching in Montessori early childhood settings were used to discover how they interpret or make sense of the requirements for self-reflection and collaborative inquiry and their view of themselves as reflective practitioners.

3.3 Research Design

Qualitative research examines behaviour in its natural environment while quantitative research seeks to uncover an objective reality (Johnson & Christensen, 2012). Johnson and Onwuegbuzie (2004) describe mixed method research as the third research paradigm and explain that mixed method research can allow the researcher to combine the complementary strengths of qualitative and quantitative research. For example to use qualitative approaches to yield rich contextual data and quantitative approaches to provide data that is easier to gather using and less time-consuming to analyse.

A mixed method case study approach was used. A case study is “an examination of a specific phenomenon such as a programme, an event, a person, a process, an institution or a social group” (Merriam 1988, p. 9). Yin (2009) identifies case studies as an empirical enquiry into a “contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident” (p. 8). In this study the case was the phenomenon of reflective practice by individual teachers and teaching teams in Montessori early childhood centres.

The units of analysis within this case study were teaching teams from three early childhood centres and individual teachers as shown in Figure 2.

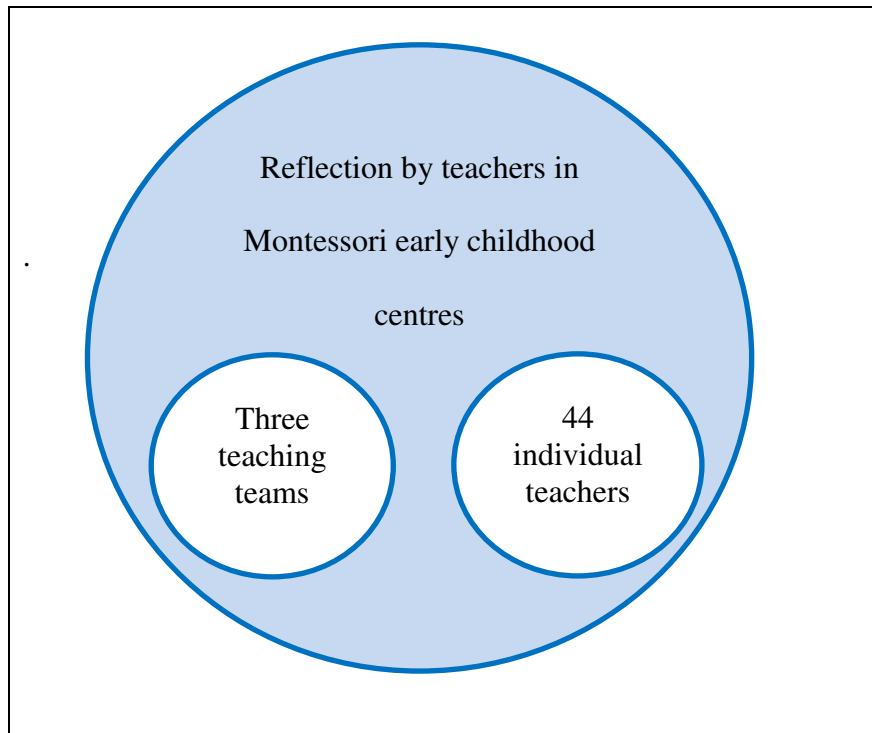


Figure 2: The research case study

In mixed method research the exact mix of qualitative and quantitative data collection depends on the research questions and on the practical issues facing the researcher (Johnson & Christensen, 2012). A case study may use multiple sources of data such as interviews, observations and written documentation (Gray, 2009; Yin, 2009). In this study data collection was mainly qualitative, with some elements of quantitative data collection. By using both qualitative and quantitative data collection, a more detailed picture may emerge from the participants enabling greater insight into the problem than could be obtained by either type of data separately (Johnson & Christensen, 2012).

One of the criticisms of case study research is its lack of generalisability to other cases. However Kervin, Vialle, Herrington and Oakley (2006) suggest the value of a case study may be its contribution to theory formulation. The richly detailed data helps to development understanding of a context and may help in the hypotheses for further research. It is anticipated that insights from participants in this case study may led to generalisations with application for future professional learning, peer and mentoring support, centre-based support and structures for Montessori early childhood teachers. The main elements of the research approach used in this study are outlined in Table 1.

Table 1: The main elements of the research approach.

Research paradigm	Research design	Data collection
Constructivism	Mixed method case study	Survey, semi-structured interviews, documentation.

3.4 Data Collection

In this study data about teachers' views and approaches to reflection was gathered through an online survey, semi-structured interviews of three focus groups and an examination of documentation.

3.4.1 Survey. Surveys help to extract personal opinions, attitudes, thoughts and feelings (Johnson & Christensen, 2012). The survey used in this study was designed to gather both qualitative and quantitative data, with the objective of discovering the views and experiences of individual teachers in Montessori early childhood centres. The survey was conducted online to enable information to be gathered nationally from a larger number of teachers than could be interviewed individually or in groups.

The constructed questions were piloted with six teachers from Montessori early childhood centres to ensure the questions were straightforward, unambiguous, that participants would know or have access to the information being sought and that the survey did not take longer than 30 minutes to complete. Some changes were made to the wording and order of questions as a result of this pilot.

The anonymous online survey was sent by email with a link to Survey Monkey to individual teachers and Montessori centres who were members of MANZ. Survey Monkey was chosen, as it was an online survey that was familiar to the researcher.

The survey was a mixture of quantitative and qualitative questions that addressed each of the three research questions. The survey gathered quantitative data by asking participants to rank their response by selecting a position on a five-point Likert scale, by choosing the option most relevant to them from a list of limited choices,

or by responding to a closed question with a yes or no. The survey questions are provided in Appendix 3: Online survey questions.

Qualitative data can help to describe situations or perceptions identified in the quantitative data enabling the researcher to keep a focus on the meaning that the participants held about the issue and to gain further understanding of the participants' thinking (Cresswell, 2014). In this study further understanding was sought by giving the survey participants the option to add written comments to some closed questions and by requesting a written response to 10 open-ended or qualitative questions. The survey data was collected from September 2012 to January 2013.

3.4.2 Focus group interviews. Focus groups interviews are a common feature of research that aims to capture the thinking of teachers about their work and experience (Johnson & Christensen, 2012; Wilson, 1997). Semi-structured interviews of three teaching teams were used in this research to enable the collection of comparable, in-depth data across a number of participants.

The focus group interviews aimed to gain an insight into both individual teacher and collective team opinions; individuals had a chance to give their perspective and the group discussion provided more insight into the individual comments made. The focus group interviews comprised of open-ended questions enabling the respondents to reveal their views (Silverman, 1993) and to openly discuss their ideas around reflection in relation to Montessori early childhood teaching teams (see Appendix 7: Focus group interview questions). In focus group interviews attention was placed on the feelings, comments and thought processes of the participants as they voiced issues (Krueger & Casey, 2000).

The same set of questions was used in all three focus groups; this enabled the researcher to redirect the conversation back to the topic of the research when required. Plenty of time was given to enable all the participants to express their opinions and views and they were invited to elaborate when necessary. All focus group teachers were encouraged to participate and the researcher summarised the points when necessary. The focus group interviews were between 1.5 to 2 hours in length. A negative aspect of focus group interviews is that participants may wish to leave a good impression and may not share their opinions honestly (O'Leary, 2010) or may be influenced or silenced by the views shared by other participants in the group. The focus group interviews

were conducted in December, 2012. Data from the survey and focus group were analysed at the same time.

3.4.3 Documentation. Another source of data collected in this research was analysis of self review documentation from two focus groups. Yin (2003) asserts that “the most important use of documents is to corroborate and augment evidence from other sources” (p. 87). According to Johnson & Christensen (2012) data originally collected at an earlier time for different purpose can be used. Self review projects were sought from centres after holding focus group interviews and examined to discover how their review impacted on their reflection on Montessori philosophy and their teaching practice. Only two of the three focus groups sent self review documentation by post or email. This documentation provided a source of secondary data which was analysed to discover how the self review process had impacted on the team’s reflection on Montessori philosophy and their teaching practice.

3.5 Participants

Teachers in Montessori early childhood centres that were members of MANZ or teachers who were individual members of MANZ were invited to participate in this study.

3.5.1 Focus group participants. The centre teams that participated in the focus groups were selected based on their inclusion in the Montessori Journey to Excellence Pilot Programme being conducted by MANZ and the researcher’s knowledge of the centres. They were selected from each of the following ownership types; private, community-owned, corporate-owned. The centres differed in size from one to three classrooms. The first centre (FG1) was located in a small rural town in the North Island, the second centre (FG2) was located in a suburban area of a North Island city, while the third centre (FG3) was located in the suburban area of a South Island city. The three centres selected all agreed to participate in this study.

Each focus group included one or two teachers involved in the pilot programme and a number of other teaching staff from the centre who also agreed to participate in the focus group. In all cases there were some team members at each centre who did not participate in the focus groups. The characteristics of the centre and teachers in each focus group are provided in Table 2.

Table 2: Characteristics of focus group centres and teachers

	Size	Ownership	Number of teachers in focus group	Number with or completing ECE Qualifications	Number with or completing Montessori qualifications
Focus Group One (FG1) Small rural town	Small –one class	Private	3	3	1
Focus Group Two (FG2) Large North Island city	Small – one class	Community	4	3	4
Focus Group Three (FG3) Small South Island city	Large – four classes	Corporate	8	5*	6* *One staff member had neither ece or Montessori qualification

3.5.2 Survey participants. Teachers who were individual members of MANZ in 2012 (69 teachers) and all teachers working in the 100 early childhood centres (estimated 400-500 teachers) which were members of MANZ were invited via email to participate in the online survey. Forty-four teachers responded to the online survey, a response rate of around 10 per cent.

Each participant was asked to give information on the centre in which they were working at the time of the survey. Most were from suburban centres (56 percent) that were stand-alone centres under private ownership (68 percent). The most common centre size was between 21-40 licenced places (52 percent) with one class (52 percent). In addition, 33 percent of the centres had been operating for longer than 20 years. The most common size of teaching teams was four staff (39 percent).

Survey participants were also asked to share information about their qualifications. They were asked if they held or were studying for a teaching qualification that led to New Zealand teacher registration and if they held or were

studying for a Montessori diploma. Montessori diplomas do not lead to New Zealand teacher registration, so many teachers in New Zealand Montessori early childhood centres hold both early childhood qualifications and Montessori diplomas.

The overwhelming majority of survey participants (91 percent) held at least one or more teaching qualifications that led to teacher registration and two percent were currently studying for an early childhood qualification. The qualifications that led to New Zealand teacher registration are shown in Table 3.

Table 3: Qualifications that led to New Zealand teacher registration held by participants

Qualification(s) held or being completed	Percentage of Participants
Early childhood degree from a New Zealand university	38
Early childhood diploma from New Zealand tertiary providers	35
Primary teaching degree from New Zealand or overseas	30
B. Ed (Montessori Early Childhood Teaching) from AUT University	19
Early childhood teaching qualification from overseas	11

(NB: Some participants hold more than one early childhood qualification)

Survey participants were also asked if they held a Montessori diploma and 70 percent currently did while seven percent were studying towards a Montessori diploma. However, 23 percent indicated that they did not hold a Montessori diploma. Table 4 indicates where the teachers gained their Montessori qualification.

Table 4: Montessori training organisations where survey participants gained qualifications

Montessori diploma held or being completed	Percentage of participants
Aperfield Montessori Trust	39
Association Montessori Internationale	29
North American Montessori Centre	14
St Nicholas Montessori	11
London Montessori Centre	7
Montessori Centre International	4

Very few survey participants (only seven percent) in this study did not hold a teaching qualification that led to New Zealand teacher registration. It should also be noted that in addition to the large proportion of survey participants who held or were studying toward Montessori qualifications (77 percent), a further 19 percent held or also held a B.Ed (Montessori Early Childhood Teaching) from AUT University in Auckland, New Zealand.

3.6 Data Analysis

This section explains the data analysis process for both the qualitative and quantitative data.

3.6.1 Qualitative Data. Qualitative data was gathered from the open-ended questions in the online survey and from the focus group interviews. Data recorded during the focus group interviews was transcribed and analysed. The transcripts were all read numerous times to identify common themes in relation to the three research questions (Huberman & Miles, 1994). Qualitative data from the focus group interviews and the survey participants are reported in the following chapters using illustrative quotes from both the focus group and written comments by survey participants.

3.6.2 Quantitative Data. Quantitative data collected in the online survey was analysed and reported as a percentage or in graphs or tables. The quantitative data was used to support the qualitative data, so was analysed together. In addition, documentation on self reviews from two of the focus group centres was analysed in relation to comments made about self review in the focus group interviews. The quantitative results of the online survey were collated and grouped by Survey Monkey and all qualitative responses listed for further analysis by the researcher.

3.7 Trustworthiness

Johnson and Christensen (2012) suggest having multiple sources of evidence and the use of data triangulation to help increase the trustworthiness of data. In this study there were multiple data sources; an online survey, focus groups and documentation. Member checking (Merriam, 1988) or participant feedback (Johnson & Christensen, 2012) is also suggested to improve trustworthiness. Centres involved in the focus group interviews were emailed transcripts. All participants had the opportunity to check the accuracy of focus group interview transcripts to make sure their opinions were represented correctly, to send back any changes they wished to be made to the transcripts or to withdraw their data. No changes were made, but one participant did withdraw from the study.

3.8 Ethical Considerations

To ensure that ethical considerations were met, an ethics application was approved by the Victoria University of Wellington Human Ethics Committee. The study adhered to the New Zealand Association for Research in Education Ethical Guidelines (New Zealand Association for Research in New Zealand, 2010).

All the survey participants were invited to participate via email and received information detailing the purpose and limits of confidentiality of the study (see Appendix 2). Survey participant responses were anonymous and no identification of individual participants was possible.

Each centre in the focus group was sent an information sheet and consent form at the same time as the request was made to participate in the study. All the three

centres accepted my invitation to participate and informed their teachers when the focus group would be held and they were invited to participate. Teachers in the focus groups were provided with a participant information sheet that outlined the study and what they would be asked to do as part of the focus group prior to the focus group interviews. The focus groups teachers all signed a consent form. Information sheets and consent forms for centres and individual teachers were worded in such a way that it was possible for them to decline (see Appendices 1-7). In addition, focus group teachers were given the opportunity to withdraw from the study after the focus groups interview, when the transcripts were sent back to focus group centres. One participant did decide to withdraw.

The three centres involved in the focus groups are not identified in the study. However it must be acknowledged that since there are only 12 early childhood centres participating in the Montessori Journey to Excellence Pilot Programme selected by MANZ, it may be possible for people within the Montessori community to identify the three centres selected. Anonymity of the three centres and the identity of some of the teachers in the focus group interviews may not be possible. Pseudonyms for the centres were used and the identity of the teachers in each focus group and ‘which teacher said what’ is not identifiable.

3.8.1 Conflict of Roles. I work as the Executive Officer for MANZ. Teachers and early childhood centres in my study are members of this national organisation. I am aware of the ethical issues my position poses, particularly the need to avoid the possibility of coercion. It was made clear to focus group centres and teachers and survey participants in the information sheet and consent form that it was voluntary for them to take part in this research and their decision whether to participate would not affect their membership of MANZ and/or their involvement in the Montessori Journey to Excellence Pilot Programme. Permission was sought and given by the MANZ President to use MANZ member email databases that are accessible to me in my role as executive officer (See Appendices 1 &2).

3.9 Chapter Summary

In this chapter it has been outlined how the study was underpinned by a constructivist paradigm and justification for the use of a mixed method case study approach has been provided. The data collection from an online survey, focus group interviews and document analysis has been explained along with a full explanation for how the study was conducted.

The following three chapters (Chapter Four - Six) provide a synopsis of the qualitative data gathered from semi-structured interviews with the three focus groups and qualitative comments made by participants in the online survey. Quantitative data from the online survey is also included where it was helpful to answer the research questions. The data gathered is explained in relation to the three research questions: the current views of teachers about reflection on Montessori philosophy and practice; the perceived opportunities and barriers to reflection; and the impact of self review and teacher registration on reflection by individual teachers and teaching teams.

Chapter Four: Reflection by teachers and teams in Montessori early childhood centres

4.0 Chapter Overview

This chapter presents the findings related to the first research question:

- What views do teachers in Montessori early childhood centres currently hold about the importance of reflection on Montessori philosophy and practice?

Participants were asked if they viewed reflection as an important aspect of their role as teachers in Montessori settings and if they felt that they had ‘permission’ to critique Montessori philosophy. Participants shared how they perceived the variations in interpretation of Montessori philosophy and the different teaching practices described as ‘Montessori’, whether they viewed Montessori education as a static model and if they had reflected on the congruency between their personal values and beliefs and Montessori philosophy. Relevant literature will be referred to when presenting the findings.

In this chapter the findings are reported for the following questions. Two questions were asked in both the focus group interviews and survey, two were addressed only in the focus group interview and two were asked only in the survey. These are identified in Table 5.

Table 5: Questions asked in focus groups interviews and survey

Questions	Focus group	Survey
Survey: How important it is for Montessori early childhood teaching teams to critically reflect on team teaching practice? FG: Tell me about your understanding of the importance of reflection?	Y	Y
Survey: Do you think that Montessori teachers feel they are 'permitted' to critique Montessori philosophy? FG: In what ways do you feel empowered to question and debate the theoretical perspectives of Montessori philosophy?	Y	Y
FG: In what ways do you feel empowered to question and debate the varying interpretations of Montessori philosophy and different practices of Montessori theory-in-action?	Y	N
FG: Montessori pedagogy has been described as a 'static model that is to be learned by rote'; what is your response to this description?	Y	N
Survey: Have you ever articulated your personal values and beliefs about teaching and learning?	N	Y
Survey: How important is it to reflect whether your personal values and beliefs are congruent with Montessori philosophy? Survey: Describe any aspects of Montessori philosophy that you do not personally agree with?	N	Y

Responses from the focus group interviews are identified as 'focus group teachers' and responses from the survey identified as 'survey participants'. Findings from focus group interviews are shared first, followed by findings from survey participants. Responses from teachers in the focus group interviews and from survey participants are provided as quotes, with some supporting qualitative data presented as graphs or tables. The focus group interview findings are referenced as FG1 - Focus Group 1, FG2 - Focus Group Two and FG3 - Focus Group Three. Responses from survey participants are referenced as S.

4.1 The importance of reflection

Reflection was identified as an important aspect of being a teacher in a New Zealand Montessori early childhood centre. Teachers in the three focus groups viewed reflection as a critical and constant process. One teacher explained:

(it is) ... really critical for teachers to constantly reflect and see what has happened and where to next ... and is it the child, is it the environment, is it you? (FG3)

Reflection was described by the other teachers in the three focus groups as an important process in order to do things differently, improve teaching practice, to keep Montessori education alive and to learn and teach at the same time. For example, one teacher related how reflection was a positive process for her:

Reflection means growth and looking back at my own practice ... I think once you write it down on paper ... and then read it back and you think, probably wasn't that big a deal or ooohhh - I need to go and do this, so reflection for me in that way has been really good. (FG2)

Survey participants were also asked about the importance of reflection. The majority (91 percent) felt it was 'very important' to reflect on team teaching practice in their centre. The purpose of reflection was described in different ways by survey participants; including it was necessary for improvement, it allowed better teaching practice and ensured the effectiveness of teachers. One survey participant suggested that:

Reflection is a type of self review and imperative to making relevant and positive changes. (S)

Other survey participants also regarded reflection as a team process to enable consistent teaching practices and for individuals in the teaching team to develop complementary goals and beliefs about children's learning. One survey participant explained the importance of teacher reflection and made links between reflection and outcomes for children:

In my experience these periods of reflection always lead to improvements in our practice and therefore in the outcomes for the children. (S)

Participants in the survey were asked how often centre meetings were used to reflect on their team's understanding of Montessori philosophy and how they connected this philosophy to their daily teaching practice. The majority of survey participants indicated that this was a priority in their centre; 90 percent said they reflected constantly or frequently in team meetings, while only 10 percent said rarely or never. This finding suggests that for most participants making sense of Montessori philosophy and using it to guide daily practice in their own centre was considered important and was prioritised.

4.2 Permission to critique Montessori philosophy

The views of teachers and survey participants on critiquing Montessori philosophy were sought. In the focus group interviews teachers were asked in what ways they felt empowered to question and debate the theoretical perspectives of Montessori philosophy. Teachers in FG2 expressed that they did not feel the need to question Montessori philosophy since their team all agreed that Montessori was the ideal way for children to learn. For instance, one teacher stated:

I am not inclined to argue the validity of her (Dr Montessori's) theories because I find them to be true in my experience. (FG2)

In contrast, a teacher from FG3 felt that it was helpful for teaching teams to debate and question Montessori philosophy and to develop a shared understanding:

... I think it's healthy to debate ... everybody...has a very different interpretation of what all of the terminology actually means within Montessori so actually discussing it ... actually brings you together with more of a shared understanding and I think that that's really important when you're practising together... (FG3)

Survey participants were also asked if Montessori teachers felt they had 'permission' to critique Montessori philosophy. The majority (59 percent) responded 'Yes'. However 28 percent responded 'No' and 13 percent were 'Unsure'. Some survey participants voiced their doubts and concerns about critiquing Montessori with one participant stating:

I feel that Montessori teachers hold Maria Montessori in awe - such that any critique would seem unacceptable to many... (S)

The view that Montessori philosophy is regarded as 'sacred' and used to critique teaching practice was noted by another survey participant:

Montessori philosophy is the set of ideals that we compare our practice with, so we use this to critique our work. We therefore view the philosophy as sacred ...
(S)

This view was commented on by Beatty (2011) who suggests that Montessori teacher training fosters teacher belief in Montessori theory and the effectiveness of the Montessori method and that Dr Montessori's writings were revered as "sacred texts to be followed faithfully" (p. 409). Some survey participants stated that there is an implied suggestion that contemporary practitioners have a responsibility to uphold Montessori philosophy. One participant suggested:

I think because Montessori is seen as something different then there is an unspoken expectation to protect the philosophy. (S)

Other survey participants were also wary too, about sharing 'doubts' about Montessori philosophy widely and expressed concern about being labelled un-Montessori or as 'heretics' by their peers. For example:

If (critique) is a polite term for expressing doubt about Montessori philosophy or expressing a unique interpretation I think it depends on who the audience is for those comments. I feel "permission" comes out of a collegial respect, and if that is not present one can be quickly discounted as a heretic or "someone who doesn't get it". (S)

One survey participant expressed the view that teachers who were involved in Montessori training should not be asked to critique Montessori philosophy:

I feel I give them books, send them to courses, enrol them in study and ask them to implement it in our schools, I don't ask them to challenge or critique aspects. (S)

Another participant commented that some teachers are willing to ask questions whereas others are not interested, leading to different approaches to reflection on philosophy. A further participant said that while she was encouraged to reflect on Montessori philosophy and expected to hand in reflections as part of her appraisal process she believed that:

... *the centre wants the conclusion to be that Montessori is "right". (S)*

Cannella (1997) argues that it was important that beliefs and values are always open to scrutiny but this participant's response indicates that she perceived that her centre team was not open to challenges to their current perceptions or beliefs/values about Montessori philosophy.

Some survey participants were more likely to regard any perceived 'inadequacies' of Montessori education as a problem with 'enacting' Montessori rather than deficiencies in the philosophy itself. As one participant shared:

I am unaware of any aspects of the Montessori philosophy that I do not personally agree with. I am enchanted by the elegance of the philosophy and believe that any difficulties I may have in realising a normalized environment are more likely a result of inadequate skill development, mentoring, or an incomplete understanding of the philosophy. In essence, I see problems in my ability to live the Montessori philosophy rather than seeing problems in the philosophy itself. (S)

In contrast some survey participants' comments reflected a positive response to the idea of reflecting on misalignments between Montessori philosophy and their teaching practice and making meaning within the context of their centre and community. To illustrate, one participant stated:

Yes this is important to us as a centre as it bridges theory to practice. We continually seek to contextualise theory to our centre and reflect on what works and what does not so that we respond to the needs of our children and our community. (S)

According to Beatty (2011) some contemporary Montessorians contend that there is a trade-off between teacher autonomy and teacher fidelity, with positive effects accruing for children only if teachers faithfully implement the original Montessori model. This was not the view of one survey participant who doubted that Dr Montessori would want teachers to dogmatically follow a rigid philosophy:

I encourage my staff to challenge ideas, and the philosophy. They need to be able to give evidence for decisions they make. To blindly follow a philosophy and base your teaching on another person without question would make you a narrow practitioner. (S)

Another survey participant reflected on Dr Montessori's own approach to reflection and experimentation, suggesting that:

Montessori was a reflective practitioner and her writings teach us not to look to her or to her methodology but to look to the child. We must continue to be guided by the principles of the Montessori Method. (S)

Shuker (2005) was critical about Dr Montessori's insistence that her "system of education be embraced as a whole package, or not implemented at all" (p. 88) in an attempt to maintain the fidelity of the method while ignoring the growing field of early childhood education. However, the need for contemporary teachers to make connections between Montessori philosophy and current early childhood theories about learning was noted by one survey participant:

If you are a reflective practitioner it would be natural to have open dialogue and question, critique the Montessori philosophy and make comparisons to up to date research and pedagogy. (S)

Several other participants in this study also promoted the view that knowledge of current early childhood education, examining Montessori education in light of theories underpinning current early childhood research and promoting research in Montessori education were important for contemporary teachers in Montessori settings.

While many participants were reluctant to critique and were wary about sharing doubts about Montessori philosophy or did not feel the need to question the philosophy at all, there were a number of participants who viewed 'critique' as integral to Montessori education and an important process to enable teachers to develop a shared understanding of Montessori philosophy.

4.3 Variations in interpretation of Montessori philosophy

Teachers in the focus group interviews were asked if they felt empowered to question and debate the varying interpretations of Montessori philosophy and the range of different teaching practices described as 'Montessori'. The challenge of 'practising' Montessori philosophy was acknowledged and one teacher in the focus groups suggested that enacting Montessori is a life-long learning experience:

... how do you actually execute what she (Dr Montessori) describes ... there are a lot of different ways that that can happen ...it's a continuing revelation as you figure out things like, 'oh what I thought was true for a long time maybe wasn't so much'... (FG2)

Another teacher said her years of teaching experience in Montessori made her feel comfortable with her own knowledge and said she would not have any issues questioning Montessori practice. She felt this kind of debate was important:

... I think challenging that interpretation is actually really important and it leads to better understanding of why things happen, but certainly it can open discussion and open minds and lead to better practice. That's my belief. (FG3)

The need to deepen the understanding of Montessori education within the team was considered a stimulus for debating practice. One teacher made the point that challenging the different interpretations of Montessori philosophy by individual teachers may not necessarily lead to changes in practice but meant that the whole team has a better understanding of how they work together.

Participants in the survey also acknowledged variations in interpretation and the difficulties in implementation of Montessori philosophy. One survey participant saw the issue as finding a balance between fundamental aspects of Montessori philosophy and modifications or adaptations in practice and suggested:

It varies from teacher to teacher and centre to centre. Interpretation also varies, depending in experience, expectations and confidence in method, children and other pedagogical theories. (S)

The view that there is a 'correct way of practice' in Montessori education has been critiqued in the literature (Beatty, 2011; Duckworth, 2006; Miller, 2002). The predominance of the 'correct way of practice' approach of Montessori education was illustrated by one survey participant who had worked in a variety of Montessori centres in New Zealand. She commented that thinking differently about practice seemed unusual:

I know from working with teachers from a variety of centres that many rules exist as to what we are "allowed" to do. Many are flabbergasted at the idea that we can think about doing things differently ... (S)

However, reflecting on Montessori philosophy was more important than a focus on the correct way of Montessori practice for this participant:

I have also come to appreciate that Montessori doesn't really have any set or firm answers, it is a watch and act, watch and act practice. (S)

Both focus group teachers and survey participants were aware of the variations in interpretation of Montessori philosophy that was evident in different teaching practices in centres and of the perception that there was a 'right' way to practice Montessori philosophy. Some challenged this approach to Montessori education and regarded reflection as an important process to link Montessori philosophy and their own centre philosophy and teaching practice.

4.4 Montessori – A static or responsive approach

In this study only teachers in the focus group interviews were asked to respond to the statement 'Montessori pedagogy has been described as a 'static model that is to be learned by rote'. The teachers who commented largely rejected this view of Montessori education. However, one teacher did acknowledge that she could understand where this view came from, particularly in relation to the 'lessons' given using the Montessori materials.

Static and rote, I can see where it comes from... they see the materials are the same, the teacher presents it the same way, so those who do not actually understand that we are about the child's needs... they think oh, you know, it's very static, it doesn't change, after a hundred years they are using the same material ... (FG2)

Three teachers in FG2 stressed that although particular 'presentations' of Montessori materials may be learnt by rote, the way in which they used these required constant adjustments or 'improvisation' to engage and respond to each individual child. For example one teacher commented:

There are some things you learn by rote, you learn how to do a particular presentation, that's the science part, that's the rote part but when do I give the presentation, how do I modify it so that the child will be interested in it, how do

I present it in an engaging way? That's the art and that's not static because you adjust that for each child ... (FG2)

Another teacher in FG1 felt that Montessori education's focus on the individual child's needs and interests saved it from being delivered in a rote manner:

As Montessori teachers we would never respond to anything in our environment, especially a child, by rote, would we, it's all about respecting the individual and every child is different and every time they come to you with a question or something it's a new question and it's a new situation. (FG1)

A further teacher commented how Montessori was a philosophy changing over time and being adapted to meet the needs of different communities at various times in history:

I think it's like any learning, I think if it was static you'd never move forward so for me I think also it does change, it adapts I think from community to community because each community I think will reflect the Montessori philosophy in different ways. (FG2)

Teachers in the focus group interviews considered that the Montessori education was responsive to the needs and interests of individual children and they suggested that the Montessori method was neither static nor rote but had evolved continuously over time.

4.5 Teacher beliefs, values and personal philosophy

Survey participants responded to a number of questions about the relationship between their personal beliefs and values and Montessori philosophy and whether the teaching practice in their centre reflected their personal understanding of Montessori philosophy. Participants were asked if they had ever articulated their beliefs and values about teaching and learning and the overwhelming majority (94 percent) said that they had. The majority of participants (83 percent) also responded that they felt it was 'very important' to reflect if their personal values and beliefs were congruent with Montessori philosophy, while 20 percent reported it was 'less important'. No one felt it was 'unimportant'.

Goodfellow (2003) asserts that the beliefs and values held by teachers strongly influence their teaching practice but remain largely invisible. Teacher beliefs are

notoriously difficult to change (Lortie, 1975 as cited in Bonne, 2013) and to unearth and examine (Tann, 1993). In this study the majority of participants responded that they had reflected on their personal beliefs and values and had considered whether these beliefs were congruent with Montessori philosophy. However it is not known whether their reflection was cursory or in-depth over time. Making these unseen elements visible (Grey, 2010) is important in order to discover how the values and beliefs of individuals and teaching teams are congruent not only with personal practice but also with their espoused centre philosophy.

When teachers interpret Montessori philosophy in a way more consistent with their own beliefs/values and dismiss the aspects that they either do not understand or do not agree with (Daoust, 2004), then key aspects of Montessori philosophy may not be visible in their teaching practice. This study examined teacher beliefs and values by asking participants if there were any aspects of Montessori philosophy that they did not personally agree with and 46 percent said ‘no’ or ‘none’. One participant commented:

There are interpretations of the philosophy I do not agree with, and I have seen practices where I question the freedom the children have, but in looking at Montessori's writings on her philosophy I still feel her observations of children are astute and I feel comfortable that my own practice fits with the key principles.(S)

Furthermore, the majority of participants who responded to this question commented on aspects of Montessori ‘practice’ that they did not agree with, rather than aspects of Montessori ‘philosophy’. In addition, the practices they did not agree with appeared to be the practice of other teachers or those in their centre rather than their own personal practice. Comments revealed that survey participants were concerned about the lack of congruence between Montessori philosophy and practices observed in Montessori early childhood centres in the following areas:

- over-controlling teachers.
- the use of the outdoor environment
- the restrictions on use of the Montessori learning materials
- tension about creativity and exploration

Over-controlling teachers or the “spectre of teacher control” (Chisnall, 2011, p. 56) caused concern for some participants. Controlling practices described by survey

participants as incongruent with their understanding of Montessori philosophy included lining children up for long periods of time, insisting that all children use the bathroom prior to lunch, the use of templates to colour in, Montessori materials being restricted to use in one specific teacher-led way, and the over-use of ‘silence’ to control children’s behaviour. One participant expressed how she found over-controlling behaviour of teachers incongruent with her personal understanding of Montessori philosophy:

I have also seen Montessori attract a number of teachers who direct children ...yet this is not part of the philosophy I always wonder why this is an assumed part of the philosophy yet Montessori does not prescribe this. I think this taints Montessori with a negative brush ... (S)

Survey participants were also asked to what extent the Montessori practice in their centre reflected their personal understanding of Montessori philosophy on the five point Likert scale from (5) always to never (1). The majority (78 percent) indicated that their personal understanding was reflected in their centre practice (5 or 4) (see Figure 3).

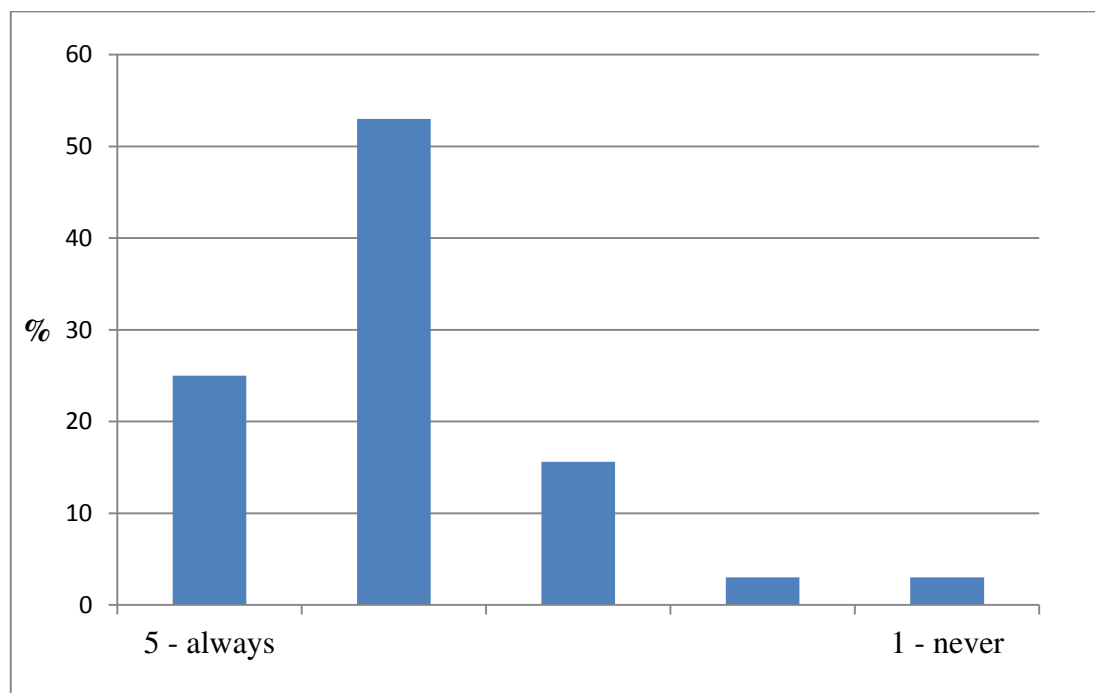


Figure 3: Personal understanding reflected in centre practice

Survey participants were then asked what aspects of their centre’s current practice they would like to change so that their personal understanding of Montessori

philosophy was more explicit in daily practice. A selection of participant comments reveal the details of practice identified and are grouped under four main themes in Table 6.

Table 6: Some aspects of current centre practice that survey participants would like to change

<p>Prepared Learning Environment</p> <ul style="list-style-type: none"> • Consider any work as important, not just maths and language • Less focus on language and literacy accomplishment and more on manners and social skills. • Using Practical Life skills by using common sense and linking to the life of the classroom 	<p>Prepared Social and Emotional Environment</p> <ul style="list-style-type: none"> • Change the work cycle, to be more conducive to the rhythm of the children. • More child control over aspects of their day. • Giving children more autonomy.
<p>Prepared Outdoor Environment</p> <ul style="list-style-type: none"> • An outdoor environment that is a prepared environment rather than a playground. • Clear choices in the outdoor classroom so children can meaningfully engage with the learning opportunities. 	<p>Observation</p> <ul style="list-style-type: none"> • Observe more and make less judgements before thorough observation has occurred • Respect and observation of the child's own journey

Twenty-six percent of survey participants who responded to this question identified in-centre support of teachers as necessary to allow Montessori philosophy to be more explicit in centre practice. Comments included additional time spent on discussion of Montessori philosophy, more in-house workshops, getting staff on the ‘same page’, greater consistency across staff in presenting Montessori lessons and managing behaviour and defining the roles of teachers in the early childhood centre. In addition 15 percent of participants identified Montessori training of staff as necessary to make Montessori philosophy more explicit in centre practice. One participant explained:

If more teachers were trained there would be more alignment to our teaching philosophy... (S)

Teachers in early childhood settings in New Zealand work in teams (Cherrington, 2011) and must collaborate to negotiate daily practice. Teacher beliefs and values cannot be isolated from their context (Bonne, 2013) and the impact of the collective view of the teaching team on an individual’s teaching practice can be

influential. Some participants indicated that they sometimes had to modify their own personal interpretation of Montessori philosophy in order that the team approach could be more harmonious:

... I am one member of a five person team and I feel that I am the odd one out on a number of critical aspects of practice. I do my best to express my personal understanding when discussion occurs, and when the team goes a different way I try to make my peace with the group decision. (S)

This participant also indicated how the collective team approach in Montessori early childhood centres in New Zealand required some 'flexibility' in one's own personal philosophy:

The Montessori practice in my centre is sometimes "less formal" than I would prefer but I have decided that I can be flexible with my personal Montessori philosophy in return for working as part of a happy and respectful team. (S)

Developing a team approach was acknowledged by several survey participants to be a journey that takes time. Nonetheless the creation of a shared understanding of philosophy and practice can reduce tensions that may arise between teachers, as well as contribute to improved practice and professional knowledge (Cullen, 2009). Identification and clarification of the values and beliefs of the centre community enables these to form the basis for developing a set of principles or guidelines which guide conduct or action in the centre (Atkin, 1996). One participant regarded understanding of Montessori philosophy as fundamental to this process:

The underlying philosophy that children construct their own knowledge and do best when given independence and freedom to choose their learning is fundamental to our practice. (S)

Grey (2010) suggests that forming a shared understanding, gaining greater criticality and self-awareness of practice and delving deeper into hidden beliefs would contribute to improvements in teaching practice. Survey participants were aware of the need to reflect on their own values and beliefs and could identify aspects of Montessori teaching practice that they did not personally agree with. The majority of survey participants felt their personal understanding of Montessori philosophy was reflected in their centre practice, but were able to identify further aspects of practice that could be changed so that their own personal understanding was more explicit in centre practice.

4.6 Chapter Summary

The findings from the teachers in focus group interviews and survey participants about their views on reflection on Montessori philosophy and practice were presented in this chapter. They all placed high importance on reflection and were able to articulate the benefits of reflective practice. It is significant that some teachers and survey participants were reluctant to critique Montessori philosophy; either because they viewed it as ‘valid’ or because they were concerned about being regarded as ‘heretical’ by other teachers. Similarly, other teachers and survey participants felt that any limitations in Montessori philosophy came from their inability to ‘live the philosophy’ rather than inadequacies in the philosophy itself.

In this study the different interpretations of the Montessori ‘model’ by teachers were acknowledged by teachers and survey participants. Some survey participants saw this as an opportunity to develop a shared understanding of the interpretation of Montessori philosophy made in their own setting, time and place. Some focus group interviews teachers also viewed Montessori education as continuously evolving over time, enabling a responsive approach to children and communities.

Survey participants in this study were aware of the importance of reflecting on whether their personal values and beliefs were congruent with Montessori philosophy and of developing a shared understanding of it within their teaching team. However, most participants commented on ‘practice’ aspects of Montessori education that they did not personally agree with, rather than fundamental aspects of Montessori ‘philosophy’. This may reflect the reluctance that participants felt about ‘criticising’ Montessori philosophy.

In the next chapter the findings related to the barriers and opportunities for reflection by teachers in Montessori early childhood centres are presented.

Chapter Five: Enablers and Barriers to Reflection

5.0 Chapter Overview

The findings relating to the second research question are presented in this chapter:

- What enablers and barriers to critical reflection were identified by individual teachers and teaching teams from Montessori early childhood centres?

In this chapter the enablers and barriers to reflection are discussed. Responses from teachers in the focus group interviews are shared first, followed by written feedback and quantitative data gathered from the survey participants. As in Chapter Four, responses from teachers in the focus group interviews and from survey participants are provided as quotes and supporting qualitative data is presented as graphs or tables.

5.1 Opportunities for reflection

Focus group interview teachers and survey participants were asked to identify the enablers and barriers to their reflective practice. Time for reflection and dialogue within teaching teams and opportunities for connections with teachers in other Montessori early childhood centres were identified as important and these are discussed with reference to relevant literature.

5.1.1 Time for reflection. Throughout the focus group interviews teachers constantly referred to a lack of time and the busyness of their professional lives and acknowledged that pressure of time was the major barrier to individual and shared reflection:

Time always. 30 seconds is great but 30 minutes would be better. (FG1)

Wish we had more hours in the day. (FG2)

...time would be the major thing. (FG3)

The workload involved in running a centre and the difficulty within a busy day of teaching to find the time to reflect as individuals or with other colleagues was noted by some teachers in all three focus group interviews. Teachers agreed that it was

important to have time to meet and talk with colleagues; however the lack of time to reflect deeply, even in team meetings, was noted:

There's never really enough time, is there to get in the nitty-gritty things that you need to talk about plus some more philosophical things. (FG3)

Teachers acknowledged the importance of informal conversations held throughout the day. In FG2 the benefit of being a small team was thought to make it easier to pass remarks informally throughout the day while a teacher from FG3 felt that:

We're very lucky in our team, most days the three of us go for lunch together and we actually find that really, really helpful ...you just get this break during the day when you can bring up things that work and didn't work. (FG3)

It was noted too that time was spent in the evenings conversing online, sharing information from the day and sharing new ideas they have discovered:

... you're very good with flicking the email, like something happened with ... a parent or something, you quickly just flick it through... tomorrow we know that what has happened. That's really good. (FG2).

We are night owls. I found this most amazing blog the other night so I just emailed xx and said, you've got to go on this, because there were just things on there that were so interesting or articles or... (FG1)

Teachers also commented on the amount of documentation and the workload that this placed on teachers in their non-contact time or in the evenings:

I think having to document everything, where do you get the time to do that, that's just mind blowing, I mean I'm struggling to get the [learning] stories into the children's journals and then I know that I need to write up the self reflection and the self review that we've been doing... (FG1)

These responses show that the process of dialogue needs time and space which teachers identified was 'hard to find'.

5.1.2 Availability of formal meeting time. The focus group teachers and survey participants were asked about the frequency and length of time they had to meet in teams and whether this enabled more in-depth reflection than was possible in informal conversations during the day. Feedback from the focus groups is shared first.

In the focus group interviews teachers were asked to describe their formal meeting times. Both FG1 and FG2 had their whole teaching team involved in centre meetings. FG1 had a fortnightly team meeting from 6.30-9.00pm, returning to work in the evening and saw this commitment to meeting as essential and important. FG2 meet weekly after the children departed, acknowledging that the meetings never finish on time:

We never end at 6, we've always said to ourselves, we have lives outside school but we do have a lot to talk about. (FG2)

FG3 had three teaching teams within the centre. Each teaching team met for an hour every fortnight after the children had left the centre. However, the whole centre team rarely met together and this was seen to be an aspect of whole centre practice that needed to be reviewed. FG3 saw their involvement in the Montessori Journey to Excellence Pilot Programme in 2013-14 as an impetus for planning more regular whole centre meetings.

... and we haven't actually really had many full centre meetings and, I guess, that's something that we need to re-look at too and well probably something that will start happening again more regularly when we're involved in the pilot programme. (FG3)

A teacher from FG3 also commented about the added stress of working 50 weeks a year with the loss of teacher-only days after the centre became part of a national chain. Teacher-only days had previously been held at the beginning of each school term and enabled teachers not only to prepare their classrooms, but also to engage in planning and sometimes in reflection on philosophy and practice. FG2 are open in term time only and still have teacher-only days at the beginning of the school year, however the loss of teacher-only time during the week with the change from a sessional to all-day licence was acknowledged:

... before we were all day sessions, we used to have Friday afternoons to ourselves and that was really good ... (FG2)

FG1 is open in school term time and also for one week of each school holidays, with a teacher only day at the beginning of each new school year.

Survey participants were asked to indicate the frequency of non-contact meeting times held in their centre for class teaching teams and whole centre teams. Participant

responses indicated that centres had several meetings held at different frequencies. Regular weekly meetings were the most common for both class teams and whole centre meetings (63 percent) followed by fortnightly meetings (46 percent). A number of survey participants indicated that their class teaching teams held daily meetings (21 percent). Some centres held whole centre meetings each month (19 percent) or each term (21 percent) while others held an annual meeting (19 percent).

Survey participants were also asked to indicate the length of each meeting type held at their centre. The most common meeting length was 1-2 hours for weekly, fortnightly and monthly meetings. Daily team meetings were all less than 30 minutes whereas term meetings were a whole day and annual meetings were between one and two days in length. Only one participant indicated that their centre weekly meetings were a half day and acknowledged the support of the Board of Trustees and robust finances to provide this time:

An afternoon of non-contact for all staff at the same time in order for us to come together for reflection and discussion. (S)

These findings from the online survey are in contrast to those of Healy (2012) who reported that meetings in the early childhood centre in her study were infrequent or otherwise monthly, fortnightly and more rarely weekly.

5.1.3 The demands on team meeting times. Reflection was reviewed as important but teachers in the focus group interviews identified many other demands on team and centre meeting times. One teacher shared that team meeting times mostly involved:

...talking about things that are coming up, like trips or things we need to do or know or just compliance things that we have to discuss or make sure that are done, ticked... (FG3)

Survey participants were also asked to indicate how often their team meetings reflected on teaching and learning. Over 50 percent responded that they ‘constantly’ reflect, 36 per cent indicated they reflect ‘frequently’ and 12 percent said ‘rarely’ or ‘never’ (See Figure 4).

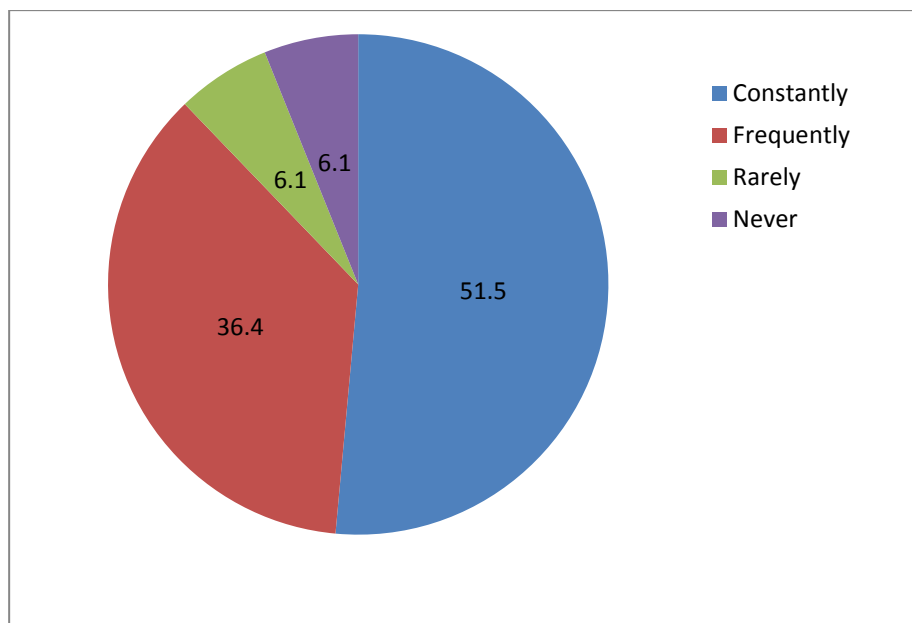


Figure 4: How often team meetings reflect on teaching and learning

Survey participants were given a list of 30 potential topics for meetings and asked to indicate how much time each topic took up by rating each on a four point Likert scale from (4) a lot of time – some time – little time – no time (1). The topics were then ranked from most time to least time based on the average score. The ten topics that took the most time (1-10) and ten topics that took the least time (22-30) were placed in their ranked position from most to least (See Table 7).

Table 7: Time spent on topics in team meetings

Ten meeting topics that took up most time in centre meetings	Ten topics that took up the least time in centre meetings
1. finances	21. dealing with everyday problems
2. budgets	22. spontaneous self review
3. planning staff social activities	23. centre policy review
4. purchase of resources	24. exploring team understanding of Montessori philosophy
5. centre staff scheduling	25. communication with parents
6. Education Review Office action plans	26. planned self review
7. settling new staff	27. whole centre planning
8. purchase of Montessori materials	28. individual child planning and assessment
9. enrolments	29. reflecting on teaching practice
10. planning for school trips	30. classroom planning and review

As indicated in Table 7, participants spent more time on administrative or compliance topics such as finances and budgets and ERO action plans and less time in meetings on reflection topics; such as self review, reflecting on teaching practice and exploring team understanding of Montessori philosophy.

Survey participants rated individual child planning and assessment as taking up little time at team teaching meetings (28 in ranking of 30 topics) which supports Healy's (2012) suggestion that teachers' documentation of children's learning may not often contribute to professional dialogue by teachers. Only one participant added 'learning stories' to the list of potential topics that may be discussed at team meetings.

5.1.4 Time for dialogue within the centre teaching team. Focus group teachers acknowledged the importance of informal conversations held with each other throughout the day. One teacher suggested that the advantage of being part of a small team was that communication could happen in passing:

And I think the other thing is that it's a very small team and it's really easy, like we see each other and we may just pass a remark and be communicating (FG2)

Healy (2012) also found that social talk and ad hoc conversations were important to sustain professional dialogue and build a cohesive teaching team. Nevertheless, the importance of time to go beyond daily surface remarks and ad hoc discussions was highlighted by one teacher in this study:

To have time to actually sit down and have a solid conversation, because I think these conversations happen but they happen on the spur of the moment or on the hop and so you don't ... go deep with that questioning, it's all kind of surface stuff. I think everyone probably goes off and does their own little reflection and carries on. (FG3)

Teachers in the focus group interviews had other non-contact time during the teaching week. They all had between 1-2 hours of non-contact time during centre opening hours, but it appears that this non-contact time was spent in isolation; writing up children's learning stories or doing administration tasks. The time needed to document children's learning and to write-up centre self reviews took up a large amount of time of teacher non-contact time:

I think that there isn't a lot of time for us to get to dialogue or to talk, there's not a lot of time for reflection, learning stories take a ridiculous amount of time, it's

difficult to have enough time to make (classroom) materials and so I think time is a big consideration. (FG2)

There was little mention by survey participants of using teacher non-contact time to engage in professional dialogue with colleagues. A few respondents indicated that teachers undertook reading and research. For instance:

Distributing and or discussing literature/articles/readings of relevance to centre or current understanding of Montessori and child development. (S)

However, it was not clear if this happened in team meetings, individual teacher non-contact time or in the teacher's own time outside working hours. Only one participant in the survey indicated the non-contact time of three hours per week was given for assessment and research; but whether the non-contact time enabled dialogue with colleagues or was an individual activity was again unclear.

Florio-Ruane and Raphael (2001) describes the isolation in which contemporary teachers work as so common "as to be almost transparent" (p. 64). Nuttall (2004) also found that professional isolation can exist even within a teaching team within an early childhood centre. No direct questions about teachers' feelings of isolation within the centre team were asked in this study, but one participant stated that the structure of the day and week must allow for meaningful conversations. The fact that focus group teachers and survey participants appeared to spend their non-contact time alone suggests that time for debate and dialogue with colleagues is limited.

5.1.5 Opportunities to connect with teachers from other Montessori centres.

Isolation of the centre team was mentioned by several teachers in the focus groups as a barrier to reflection, who expressed the desire to have more connections with teachers in other Montessori centres. One teacher from FG1 said she was hopeful that being involved in the Montessori Journey to Excellence Pilot Programme in 2013 would enable her to meet lots of other people and allow new connections:

We'll go to conference next year they'll (the other pilot centres) will be there and they'll remember you and say, hi ... that's what I would like... more connections. (FG1)

The FG1 teaching team were also hoping to form connections with other Montessori centres within driving distance to share staff appraisals. A teacher from FG2 commented too on the value of visiting other Montessori centres:

This whole idea about visiting centres and having visits from others, I think it's great, because sometimes we just do it 'that way' and... definitely we get inspired... (FG2)

The importance of sharing with teachers from other Montessori settings was also highlighted:

I feel a dialogue is so important, like being open and being given opportunities to speak what your own personal experiences is and hearing from someone else ... from another centre ... then you just compare the views ... I think dialogue with the rest really helps. (FG2)

Connections between Montessori centres appear problematic due to time constraints, cost of relieving staff and travelling distances for some centres. Some regions of New Zealand are hampered by a feeling of competitiveness and lack of collaboration between existing Montessori centres, as identified by one teacher:

I think there probably still is a level of competitiveness within the Montessori environment, it's probably everywhere ... and there's always that, 'who's doing the best Montessori job out there?'" and a real reluctance to share information and also to have those debates and that challenge of practice ... (FG3)

This finding is similar to Malm (2004) who reports she gained the impression that Montessori teachers in Sweden were isolated within their teaching groups, that collegial sharing and collaboration between different Montessori schools did not seem "common", and teachers felt there was competition between those with different Montessori teacher training backgrounds (p. 410). Focus group interview teachers appeared to value connections with teachers from other Montessori centres and saw much value in learning from colleagues, however current connections seem to be limited and hampered by time, resource and perhaps by a feeling of wariness between different Montessori centres.

5.1.6 Opportunities for connections at existing Montessori workshops and conferences. Opportunities to engage in Montessori-focused professional learning were considered essential to enable reflection. The opportunity for teachers in focus group interviews to make connections and to share their experience and knowledge were considered important aspects of Montessori-focused professional events. The teachers

had different experiences in accessing professional events. For teachers in FG1 attendance was a priority and viewed positively:

Every conference we come back totally inspired it's just so cool. That workshop that we went to with xx... we had a huge reflection on that ... it was amazing.
(FG1)

Teachers were keen to hear new perspectives on their work from workshop leaders and found new ideas empowering:

I find conferences to be quite good for that ... people who are vastly experienced and very learned and have done quite a bit of studying so they're bringing a lot of ideas to the table. So I think that's something that I feel empowers me to think about it differently ... hearing some new perspectives is something that I find empowering. (FG2)

Access to Montessori professional events was seen as a privilege by the teachers in the focus groups. FG2 teachers acknowledged the support from the parent committee and commented on the advantages of the whole staff being able to attend the annual MANZ conference:

.. I think we're better off than a lot of other teachers that we've met at conferences and they say things like, do all of you get to come together... the whole team attending for three days ... it is such a privilege ... we can bounce ideas off each other. (FG2)

Some teachers in FG3 reflected on the loss of Montessori professional opportunities since the centre had become part of a corporate company. The previous year the company had decided to fund only the centre managers to attend the MANZ annual conference. They agreed that it was hugely valuable in having more than one staff member attend the conference since it leads to:

... all these deeper conversations, philosophical conversations... (FG3)

While another teacher in the FG3 acknowledged other professional events within the corporate structure, she noted that these were not really Montessori focused:

That was more a general talk about self review... that kind of subject. On Montessori aspects there is no professional development coming from above really, not really. (FG3)

The loss of the opportunities for more than one teacher to attend Montessori-focused professional events and to bring new learning back to the centre was noted by teachers in FG3.

Time was identified as a barrier to individual and shared reflection by both focus group teachers and survey participants. Focus group teachers identified that teacher non-contact time was spent alone, writing up learning stories or doing administrative tasks, with little opportunity to reflect or have dialogue with team colleagues. Other time for dialogue between staff occurred as informal conversations, but with little time to go ‘beyond surface remarks’. Findings from the survey show that while reflection is considered important, less time was spent on reflection and more time on administrative or compliance issues. The most common formal team meetings time reported in the survey was a weekly meeting of 1-2 hours, however many demands were placed on this meeting time. Survey participants indicated that individual child planning and assessment was rated low on the list of topics for formal team meeting times suggesting that assessment and documentation of children’s learning did not often contribute to professional dialogue by teachers.

5.2 Conditions supporting collaborative reflection

Focus group teachers and survey participants were asked to identify conditions that supported reflection and dialogue. In this first section feelings of safety experienced in the wider Montessori professional community are discussed by the focus group teachers and this is followed by some comments from survey participants about their feelings of safety within their centre teaching team.

5.2.1 Feelings of safety beyond the teaching team. A number of teachers in the focus group interviews shared their concerns about discussing potentially difficult or controversial issues with Montessori teachers beyond their immediate team members:

If I’m at a conference and ... if somebody says something ... and I don’t think that’s in the best interest of the child I don’t feel comfortable saying to them, because we are all peers and there’s a little bit of, ‘who am I to tell you that that’s wrong’ and also, if I tell you that’s wrong, what are you going to say

about me?... So I end up being silent if something is said that I disagree with rather than really questioning it. (FG2)

Two teachers from FG1 talked about their experience of asking questions at a forum at a recent MANZ Conference. One of them shared her response to a judgement she felt from other teachers in the audience:

I actually started shaking ... it was almost like some people they were saying that what we were doing wasn't correct. Oh my god, self doubt, self doubt, you feel like maybe I'm not doing this right and that was quite scary really for me. (FG1)

The feeling of safety can be a powerful enabler to reflection and an emotionally safe space is essential to support the risk-taking inherent in questioning and rigorous debate (Fleet & Patterson, 2009). Safety can be an issue for teachers both within a centre teaching team and in the wider professional community. The experiences and feelings described indicate that there are barriers to collaborative reflective dialogue within the wider Montessori community in New Zealand.

5.2.2 Feelings of safety within the teaching team. Teachers in the focus groups shared their wariness about debating issues with Montessori teachers beyond their immediate centre. When survey participants were asked to indicate how safe they felt when raising potentially difficult or controversial issues within their own teaching team the majority (75 percent) felt very safe (see Figure 5).

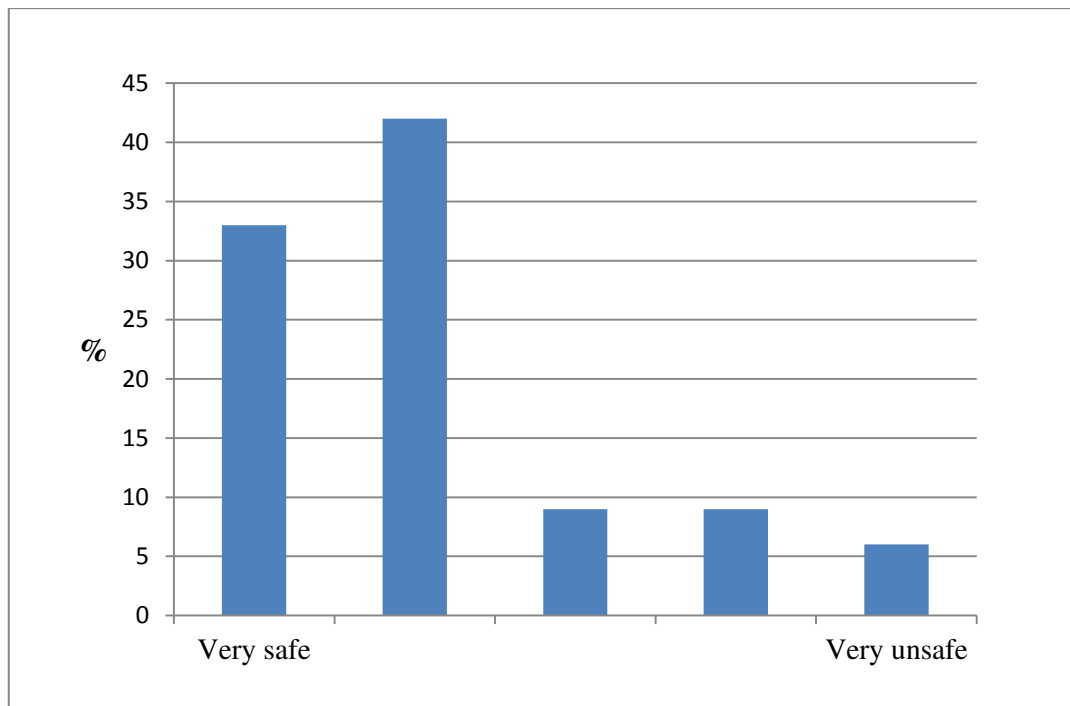


Figure 5: Safety within own teaching team

Some survey participants commented that it was important to have open and honest communication within the team and for all teachers to be professional in their dialogue. One participant suggested it was important to have thought things through before contributing to team discussions so that she could:

present requests, set limits, or raise issues in ways that invite participation, rather than feel 'confrontative. (S)

Disagreement and dissent are important aspects of professional dialogue and Grey (2011) suggests ground rules that are agreed to by all participants were essential to provide an environment where teachers are listened to and trust is ensured. A lack of safety can result when the purpose of reflection is misunderstood:

We have one teacher for whom reflection is taken personally and can make everyone else feel bad. (S)

Effective communication and personal skills were also identified by some survey participants as necessary to enable team members to feel safe when issues were being debated.

5.3 The impact of early childhood and Montessori qualifications

In New Zealand Montessori early childhood centres teachers work in teams with a mix of Montessori and early childhood qualifications. Within the team there may also be teachers with Montessori qualifications from different training providers. The lack of a Montessori qualification does not preclude any early childhood teachers from engaging with Montessori philosophy, however it does provide a foundation for teachers to begin their journey as a Montessori teacher.

The majority of teachers in the focus groups interviews held both Montessori and early childhood qualifications. Similarly the majority of survey participants (93 percent) had or were studying towards one or more early childhood teaching qualifications that led to teacher registration by the New Zealand Teacher's Council. In addition, a large proportion of survey participants also held qualifications with a focus on Montessori education; 77 percent held or were studying for a diploma from a Montessori training organisation while an additional 19 percent held a B.Ed (Montessori Early Childhood Teaching) from AUT University (the only tertiary provider in New Zealand to offer a degree with a Montessori speciality).

Working in a mixed teaching team can be challenging. One focus group teacher described her experience:

For so many years ... I've had those discussions with people and they've said, it's not Montessori, like it's just that simple, it's not Montessori, we don't do that because it's not Montessori and you're kind of like, how is that not, or why is that not and if people have been reluctant to actually ... articulate what their belief is or their interpretation of it... (FG3)

The experience of early childhood qualified teachers working in Montessori early childhood centres appears to be dependent on the relationships that are developed within in the team. One of the teachers in the focus groups remembered when she first started working in the Montessori centre:

I know when I first started here... I'd ask why something was done a particular way... get told that's the Montessori way and no explanation behind it ... (FG3)

Limits can be placed on the role of the early childhood teacher in a Montessori centre were described by one of the focus group teachers:

Where I worked previously where I was an ‘assistant’ and I didn’t step over the boundaries ... there’s actually quite a lot more freedom here but then I was paranoid because of the Montessori [training] I was going to do something wrong so then I wouldn’t present anything... or just jug pouring or something like that ... (FG1)

Both these teachers related how they had been included in their current Montessori ‘team’ and had been able to have an input into the current practices in their classrooms. One of them commented that:

... its good now that that we discuss quite often and as a team and it’s open...its good to feel that you can bring things up and we all put our views in... evolve sometimes the programme to suit the children that we’ve got at the time. (FG3)

She noted that she has been able to share her ideas about the importance of the outdoors and worked co-operatively with the Montessori-trained teacher to bring about changes to the routines in the classroom. The Montessori-trained teacher added to the discussion and admitted:

I had to learn how important the outside environment was just as important as the inside environment and then it took probably a little bit... And you (another staff member) were good for a ‘non- Montessori perspective saying why? (FG3)

Another teacher in FG1 reflected how moving to a centre with more ‘freedom’ and doing her early childhood qualification had led her to ‘grow a spine’ and given her more confidence. She related how she had done an assignment on the over-use of ‘endearments’ in early childhood and then observed this habit amongst teachers in the centre. Bringing this to the attention of the team was obviously received openly:

“X brought it to our attention. And we all went ‘ooohh...” (FG1)

In this small, privately-owned centre all the teachers were obviously welcome to bring new ideas to the team to consider and they described deciding collectively if changes would be made. One teacher reflected that:

We tend to always agree but there’ll be occasions where one of us will have an epiphany ... then we’ll get on board and think about how we can do this and how we can fix it and I think that’s really, really good.(FG1)

The inclusion of a new Montessori qualified teacher in the existing team in FG2 was also identified as an opportunity for both individual and team reflection as the teachers worked together to develop new ways of working together for the benefit of the children:

I think one good thing about our centre here is ... because we have a new team ... so we have a form of ... mini-action research where we actually throw questions and we answer ...and then we say, shall we do a review, does it work, does it not work ? I think that's the ... great work of teachers ... to just look into the philosophy and the practices, how can we actually put it into practice and make it meaningful and help the children. (FG2)

Teachers in the focus groups noted how the experience of doing an early childhood qualification provoked them to reflect on Montessori philosophy. They found that having to 'defend' Montessori to other early childhood teachers during their study led them to reflect and decide where Montessori philosophy fits for them and one teacher said:

For me, just lately I've found I have to debate, for myself in my studies, because all the people who aren't Montessori question it all the time, so I find I have to, I try and reflect on it ... I've found I've had to look at it in myself and see where it (Montessori) sits with me a lot more since I've been in studying ... (FG1)

Being on teaching experience in other early childhood settings as part of their own early childhood studies led some teachers in the focus groups to reflect on their Montessori philosophy and pedagogy:

... all the assignments that we did, all the practicums; the aspect of reflecting on your practice I thought was really necessary and especially from for? me, here for so many years so going to, for example, a Reggio- inspired kindergarten ... how they view the child and Montessori how we view the child, there were similarities but there were also differences and you come away with ... a better understanding of the child. (FG2)

Similarly having other early childhood students visit in their Montessori centre was also identified as a chance to reflect:

Sometimes when we have students ... they'll question why we do things a certain way and what it's all about and just explaining to them, almost it's like a reaffirmation for us of why we are doing it this way ... (FG1)

The Montessori and/or early childhood qualifications held by individual teachers was thought by some participants in the survey to affect the willingness of Montessori teachers to critique Montessori philosophy and practice. One participant illustrates this view:

This is subject to individuals' training. Some teachers more open to critique than others. My experience is that AMI trained staff find this the hardest however if they have completed a New Zealand early childhood teaching qualification and/or have teacher registration they are more open to critiquing their practice. Some teachers with only Montessori are very unused to critiquing their practice and find the process difficult. (S)

The years of teaching experience was also thought to play a role in the readiness of teachers to debate Montessori philosophy and one survey participant stated that:

I believe it takes five years to feel comfortable as a Montessori teacher and you may only start to critique the philosophy then. (S)

Freeman (2005) reported that Montessori early childhood centres in New Zealand had difficulties in “fitting a teacher without Montessori training and a different philosophical background into their Montessori programme” (p. 204). While survey participant responses in this study seem to indicate that while there are still concerns around ‘consistent practice’, it appears that teaching teams accept the mix of Montessori and early childhood qualifications in their teaching team. Montessori qualified teachers working alongside early childhood qualified teachers may feel the need to defend their pedagogy and practice and early childhood teachers working in a Montessori setting may feel frustrated trying to understand the Montessori approach. The ‘hows’ of Montessori practice may be outlined but the lack of ‘whys’ may cause frustration for early childhood teachers. This may provide added provocation for more in-depth questioning and discussion about philosophy as both Montessori and early childhood qualified teachers reflect on the Montessori approach and develop shared ways of practice.

5.4 Chapter Summary

Focus group teachers and survey participants appeared to have the willingness and ability to reflect on Montessori philosophy and their teaching practice. The lack of time to reflect individually and in class or centre teaching teams was identified as the major barrier to reflection. Prioritising reflection and making time for team dialogue was identified as a challenge in the busyness of Montessori early childhood centres. Even when reflection was viewed as important by survey participants, their centre teaching teams found it hard to prioritise ‘reflection topics’ such as self review, reflecting on teaching practice in formal meeting times. More time was spent in team meetings on administrative or compliance topics such as finances and budgets and ERO action plans. While 90 percent of survey participants reported that their centre meeting was used to reflect ‘constantly or frequently’ on their team’s understanding of Montessori philosophy and relating this to daily teaching practice, when meetings topics were ranked by time the topic ‘exploring team understanding of Montessori philosophy’ was listed 24th of 30 potential meeting topics.

Focus group teachers and survey participants felt safe to raise issues within their teaching teams, but were more wary of debating with teachers in the wider Montessori community. However there was a desire to have more connections with teachers at other Montessori early childhood centres. Focus group teachers valued the connections and learning made at Montessori professional events. The majority of focus group teachers and survey participants in this study held early childhood and Montessori qualifications and this seems to have a positive effect on the ability of teams to reflect. The mixture of qualifications also provided an added impetus to reflect as a team on Montessori philosophy to develop a shared centre philosophy and consistent centre practice.

In the next chapter the impact of the requirements in New Zealand for teacher reflection and centre self review will be presented.

Chapter Six: The Impact of Self Review and Teacher Registration

6.0 Chapter Overview

The findings relating to the third research question are presented in this chapter:

- What impact have the requirements for self review and teacher registration had on reflection on Montessori philosophy and practice by individuals and teaching teams?

In this chapter the findings on self review are presented first, followed by the impact of teacher registration on reflection. In the first sub-section on self review, documentation from specific self review projects from FG1 and FG3 are presented. These self review projects were analysed to discover how the process of review impacted on reflection on Montessori philosophy and practice. Comments made in one focus group interview about the self review projects are also included. In the second sub-section on self review responses to questions from participants in the survey are shared.

In the second part of this chapter the impact of the requirement for teacher registration on reflection by teachers in Montessori early childhood centres and drawing on findings from both focus groups and survey participants is discussed. The focus group self review documentation is presented first, followed by data gathered from survey participants. As in Chapter Four and Five quotes from the teachers in focus group interviews and from survey participants are provided, along with qualitative data presented in tables and relevant literature to explain the findings.

6.1 The impact of self review on reflection

Self review is the process used for teacher inquiry in early childhood centres in New Zealand. The impact of the current requirements for self review and teacher registration in New Zealand on Montessori education has not yet been evaluated. Self review and teacher registration both require individual teachers and teaching teams to construct their professional knowledge of practice. The impact of these mandatory requirements on reflective practice in Montessori early childhood centres are explained.

6.1.1 Self review: focus group documentation. Teachers in the three focus group interviews were asked if their centre had completed any self review projects that

focused on Montessori philosophy and practice and if any changes to centre practice occurred as a result of review. All three centres discussed recent reviews in their focus interview but only two centres provided documentation for specific self reviews they had recently undertaken. This documentation is presented below to demonstrate how self review had promoted and supported reflection on Montessori philosophy and influenced changes to centre practice.

There are many models used for inquiry and review, however the model outlined in *Nga arohaehae whai hua: Self review guidelines for early childhood education for early childhood centres* (Ministry of Education, 2006) was chosen to examine the reviews undertaken by centres in this study, since it is the model used by early childhood centres in New Zealand. This review cycle includes four stages, preparing (what do we want to find out?), gathering (what is happening now?), making sense (what does our data reveal?) and deciding (what will we do next?). This model was used to understand how the focus groups used and documented the four stages of review and how the self review cycle impacted on the centre's reflection on Montessori philosophy and their teaching practice. Self review can be planned and linked to the centre's strategic plan or may occur spontaneously in response to an event or issue that arises.

FGI Self review documentation. This following self review documentation was provided by FG1, who had undertaken a spontaneous review of art within their centre. Quotes are taken either from the documentation (*FGI – Self review documentation*) or from the focus group interview (*FGI*).

Self Review on Art

The stimulus for a review on art came from attending a Montessori-focused professional development workshop. Teachers returned to the centre with new ideas and decided to re-look at how children engaged in art. This review by FG1 began by 'preparing' and deciding on the focus for the review. In the documentation two inquiry questions were recorded; 'How can we provide children with opportunities for creative and artistic expression throughout their environment?' and 'Is the prepared environment meeting the needs of the children in the area of art and creativity?' The teachers recorded writings about art by Dr Montessori, Montessori writers such as Paula Polk Lillard, Binda Goldsbrough and Regina Reynolds Barnett, and other thinkers such as

Annie Besant and Rudolf Arnheim that provided some guidance for the review. 'Preparing' includes the selection or development of indicators to guide data gathering, however no indicators for the review seem to have been developed.

The next stage of self review is 'gathering' information on current practice so that any decisions or changes to practice will be based on evidence, not 'gut-feeling' or anecdotal narrative. The teachers observed and recorded over a week the length of time individual children spent engaged with art activities and the behaviour of children at or near the art table. From this observational data teachers reported that they had noticed that the art activities were mainly drawing, done by a group of children who drew without focus and spent much time engaged in loud social chat with each other and other children standing in the area. It was also recorded that there was very little introduction of new skills or experiences by the teachers. 'Making sense' of this evidence led the teachers to recognise that:

We recognised that some of the children have mastered the use of many of the art activities that we provide on a daily basis ... our aim was to introduce some new skills and techniques that will support children in developing and further extending their interest and abilities in the creation of art. (FG1- Self review documentation)

In the fourth stage of the review the teachers 'decided' on the pedagogical changes that would be made to the preparation of the environment for art experiences. These changes were documented and included introducing more complex art techniques such as screen-printing, providing a range of art activities with materials laid out on trays and accessible to the children on shelves, providing activities that included simpler skill-building exercises and complex open-ended materials. The teachers also aimed to make art available throughout the environment and made changes to the physical environment including placing art materials, a table and chair in the centre's Peace Garden, adding a shelf of art materials to the deck area, providing light portable easels that the children could carry to tables and use within the classroom, deck and out into the garden and moving art activities around the garden.

We just kind of rearranged things and presented things in a much different way and made it much more individual and gave children space and time to concentrate and be creative ... and they were! (FG1- Self review)

documentation)

The teachers also made changes to their own engagement in presenting art activities to the children. Using information from their research they decided that art activities should be presented as individual lessons, like the other Montessori activities so the children could learn how to use the art materials and develop skills for art. One teacher explained how they had changed their approach:

...we changed our involvement too, like we give presentations in the art room now so... it's not just I assume you know how to paint, because it's a skill, so we teach... (FG1)

The teachers recorded the children's engagement with the new art set-up and took photos of the new art they observed the children doing.

...the quality of the art work that was coming out of the art room ... was our indicator that it was working well, I've taken photos of some artwork that came out of there within the first week of changing it, it was just amazing ... I don't even know where the inspiration came from but the children were just in there just thinking, it was just really good...(FG1)

Photos of the children's artwork being shared with parents and were accompanied by explanations about the focus that the children were now bringing to their art activities:

We can see attention to detail, understanding of form, and the ability to include movement. This was achieved through deep concentration and thought. (FG1-Self review documentation)

The teachers documented their plans to continue to include art materials throughout the prepared environment, introduce more complex art experiences, to encourage the children who have learned to use more complex art techniques to mentor other children and to introduce displays of interesting art so that children could see and discuss a range of media, styles and techniques.

The review process appeared to have provoked reflection and discussion by the FG1 about their current practice and they had attempted to use Montessori philosophy to guide the changes made during the art review. The teachers felt that the requirement

to formalise and document the review had helped to extend the thinking processes involved in reflecting on art in their environment:

... you build it up in stages rather than just have one big discussion and change and that's it, it's much more reflection and much more extension and building on of new ideas... (FG1)

Reflection focused on the 'practice of Montessori' rather than on 'Montessori philosophy'. In this art review the teachers did not critique the 'Montessori approach to art', but rather attempted to narrow the gap between their centre art practice and what they understood the Montessori approach to 'art and creativity' to be.

The review process provided the stimulus and the space for the teaching team to reflect and develop their own centre approach to art. The team articulated a centre vision for art and through discussion developed a more consistent team approach. This statement was recorded in the self review documentation:

We all recognise that art is an enriching and empowering part of our curriculum, and just as science, language and mathematics are found throughout the environment, so too is art. (FG1- Self review documentation)

The changes made to the environment were recorded however evaluation was limited to some comments made about photos taken of the art work produced. No further observational data gathered after the changes were made and no comparison could be made to observational data collected in the 'gathering' stage so the impact of the changes could not easily be assessed. No evidence was recorded that could enable the impact of the changes on the amount, type, range and or quality of the art experiences the children were engaged with each day to be assessed.

In this self review the teachers did some research to learn more about the Montessori approach to art and used this to try to link their pedagogical changes to philosophy. However philosophy was not used to clearly articulate the desired outcomes for children in this Montessori setting. The impact of self review on reflection concerning Montessori philosophy and practice may have been greater if the teachers had developed indicators for the review. Indicators may have led the team to reflect more deeply on Montessori philosophy and practice to articulate the centre's desired outcomes for children. Indicators could also have been used to assess if the changes in the art activities, to teaching practice and set-up of the art materials had

enabled these desired outcomes to be achieved. Developing indicators in the ‘*preparing*’ stage and collecting more evidence-based data in the ‘*gathering*’ stage both before and after pedagogical changes were made would have strengthened this centre’s review process, since it would have been clearer to the team what they were aiming to achieve and whether their practice changes had made any differences in children’s choices and learning.

In the art review the inquiry question was recorded in two ways: ‘Is the prepared environment meeting the needs of the children in the area of art and creativity?’ and ‘How can we provide children with opportunities for creative and artistic expression throughout their environment?’ Both questions have several layers of meaning, for example delving deeper into each question could have led the teachers into an inquiry about what their centre team considers ‘the needs of children in art and creativity to be’ or what the team collectively understands by ‘creative and artistic expression’.

In the focus group interview the teachers acknowledged that they had not revisited the art self review since the changes they had made were working well. The teachers expressed excitement at the changes they had seen not only in the art being produced but also how the children were more focused and involved in art activities.

FG3 Self review documentation. The second self review documentation was provided by FG3, who had undertaken a spontaneous review of the afternoon programme within their centre.

Self review of afternoon programme

The stimulus for a review on the afternoon programme was the teachers’ observation of the children during extended free play outside in the afternoons during the summer. The teachers recorded that they noticed that some children seemed ‘bored and tired’. Changes were made to the afternoon programme by the teachers soon after the review began using ideas and activities that the teachers had decided on.

After a couple of months the inquiry question or focus for the review was decided on and recorded in two parts; ‘Do we provide an inviting and engaging afternoon programme for the tamariki and how can we enrich the programme for our tamariki?’. As part of the ‘*preparing*’ stage of the review the teachers decided to seek feedback from other Montessori centres in New Zealand about their centre daily

routines and the activities offered in the afternoon. The teachers did literature searches on the internet and also asked MANZ for Montessori articles that were relevant to this topic and recorded that there were two articles that were useful, but no links to Montessori philosophy was documented. Teachers recorded in their class meeting minutes that they did not feel that feedback gathered about daily routines from other centres were feasible but no explanation was made in the review why this decision was made. The teachers recorded that they saw a need for a more focused/structured afternoon programme to enhance, support and encourage the children's interests. No indicators for the review were developed.

There was no observational data included in the review documentation. The only information recorded in the review was reflections by teachers on the afternoon programme and some description of the activities that were available to the children outdoors in the afternoon. No observations were recorded in the review that showed the range of activities each child was choosing, what activities the younger children were choosing, what the older children were self-selecting, how long the children were engaging with their chosen activities etc. The assertion that the children 'seemed bored' appeared to be based on teacher judgement than on recorded observations over a period of time.

A few months after making teacher-initiated changes to the afternoon programme, the team decided to involve parents and whānau in the 'gathering' stage of the review and a survey sought their ideas on what sort of activities they would like their children to do in the afternoons and to ask for parental support in providing activities.

Teachers also decided to begin asking the children for their input into what activities they would like to do in the afternoon and recorded how asking the children's opinion and engaging them in decision-making about afternoon activities each day had been a positive process.

The team recorded that the two teachers in the afternoon could support both the activity suggested by the children, inside activities and the flow outdoors. The teachers noted that it was each child's choice whether to participate in the activity or not, but that the majority of the children did choose to do the planned activity. Some families had made a contribution to the afternoon programme including singing, sewing and

making crafts. The review was made visible through photos of the children offering suggestions in group time and engaged in afternoon activities, sometimes with parents.

The teachers reviewed the afternoon programme toward the end of the school year. One teacher recorded the following reflections:

The environment is modified to meet the changing needs, interests and abilities of the children. I am flexible in responding to spontaneous events... I continue to use observation to 'plan' and use this knowledge to guide learning ... (FG3- Self review documentation)

The review documented that a further evaluation would be made a few months into the following school year.

This review process provoked some discussion by the teaching team on their current centre practice and the teacher-initiated changes made to the afternoon programme. However reflection on Montessori philosophy was limited and did not appear to guide the practice changes made during the review.

While teachers noted that they had 'looked at Montessori's own writings' it was not recorded what had been gathered and there did not appear to be any reflection on what had been discovered. The self review documented teachers felt that there was little Montessori literature relevant to their mixed age group, but no detailed reflection was made on the articles that had been read or why the teachers decided the information was irrelevant to their setting. Feedback from other Montessori centres was recorded and discussed yet the teachers noted that:

Some of the ways other centres organise their afternoons is would not be feasible for us. We would like to have excursions, maybe some afternoons for one teacher to work on Montessori extension work with older children, to do activities children choose. (FG3)

It was not made clear in the self review documentation why a different approach would not be feasible. Decisions about changes to daily routines and practice were made made at the beginning of the review cycle, prior to the gathering of data and without the development of indicators for review. It seems the changes to the afternoon programme were made based on teacher judgements rather than on the evidence-based

decisions guided by Montessori philosophy. Again, the lack of quality indicators for the review also meant that there was no way of assessing if the teachers had developed the practice they desired to see in their centre. This supports the suggestion by ERO (2009) that there is “still much work to be done to build capacity in effective self review in all early childhood services” (p.1).

Revisiting the inquiry question can occur at any time in the review process as the ‘real issue’ that needs to be the focus for review becomes more apparent. In the afternoon review the focus seemed to change over the period of the review from reflecting on the afternoon programme to empowering children and families to be engaged in decision making as partners with teachers. This seemed to be the aspect of the review that excited the teachers:

.. since we have started to involve the children more in the decision-making process I am more aware of what the children would like to do ... the review process has made me more aware of the importance of empowering children...the Montessori phrase ‘follow the child’ has taken on a new meaning for me (FG3 – Self review documentation).

This self review cycle appears to have confirmed practice decisions rather than enabled deeper reflection and inquiry into Montessori philosophy and their centre practice. The lack of reflection indicates that the centre’s espoused Montessori philosophy has not been utilised to inform the decisions about practice.

6.1.2 Self review: survey participant responses. Survey participants were asked how familiar their teaching team was with self review and the majority (73 percent) indicated that they were very familiar with the process of self review. Only 6 percent indicated that they were unfamiliar with self review.

The majority (75 percent) of survey participants responded that their centre had completed self review projects that had focused on Montessori philosophy and practice. Some participants were unsure if the review that their centre had done was ‘Montessori or not’ indicating perhaps that some centres consider ‘Montessori’ and ‘early childhood’ as separate pedagogies rather than looking with a ‘Montessori lens’ across all aspects of their centre philosophy, pedagogy and practice, planning and vision. One participant suggested:

... I guess this depends on what we mean by Montessori philosophy and practice. It seems to me that everything we do should be focusing on Montessori philosophy and practice and so perhaps all review should fit into this...(S)

Three participants indicated that there had not been any self review done in their centres with one commenting:

*Have only been at this centre 2 years - so not aware of any during this time...
(S)*

Other survey participants indicated the self review topics that had been the focus for inquiry and these are presented in Table 8.

Table 8: Examples of self reviews undertaken in Montessori early childhood centres in New Zealand

Review Focus	Details	Length
Outdoor Environment	Indoor-outdoor flow X 10 Developing our outdoor area and programme in line with a Montessori prepared environment How to encourage the development of 'wonder' in the natural world How can we enhance our environmental studies curriculum in our Montessori environment?	1-3 years
Prepared Social and Emotional Environment	Identifying barriers to children's developing independence Creating an environment with minimal disruption Three hour work-cycle Arrival and farewell procedures Children's independent learning The roles of adults in the classroom What does social competence and leadership look like in our Montessori environment? Snack time	1-2 years
Montessori Curriculum	Writing Reading	1-2 years
Parents	Effective communication between teachers and families Parents understanding of Montessori philosophy, Incorporating Montessori into the home environment Assisting families to feel part of our Montessori community Strengthening links with parents/whānau in regards to Montessori philosophy Educating the parent community on Montessori practice	
Transition to School	Transition from Montessori to primary	1 year
Planning and Assessment	Learning Stories Te Whāriki ece curriculum and assessment for learning Assessment, documentation and profiles	1-2 years
Other topics	MANZ 3-6 Parent Guide Montessori Journey to Excellence	1 year

There were a range of self review topics reported by survey participants. A number had been involved with reviews of the outdoor environment, its link to the indoors, the provision of a Montessori prepared outdoor environment and managing the flow of children from inside to outside. Some of these reviews had been on-going for several years, indicating that the centres were continually evaluating the changes made and then deciding on additional pedagogical changes.

There were a range of self review projects around the ‘Montessori prepared social and emotional environment’ including independence, the role of the adults in relation to social competency. Again these had been done over a length of up to two years. Communication with parents and their understanding and use of Montessori philosophy at home was another area that many participants reported reviewing. The choice of review topics indicates that centres have an understanding of Montessori philosophy to guide their review or inquiry focus.

Indicators for review. As already discussed the self review model *Nga arohaehae whai hua: Self review guidelines for early childhood education for early childhood centres* (Ministry of Education, 2006) includes the development of indicators in the preparing stage of self review. These are selected or developed to guide the gathering and evaluation of information or data gathered about current practice. The process of selecting and developing indicators gives an opportunity to reflect on the centre’s understanding of Montessori philosophy, its philosophy and vision, and teacher values and beliefs about children and Montessori philosophy. Indicators may be expressed as a statement of the desired practice the centre expects to see. In addition indicators for review guide data gathering about current practice and enable teachers to compare ‘what is happening now’ to ‘what you want to happen in the future’.

Survey participants were asked how they had developed or sourced quality indicators for self review projects undertaken in their centres. Participants indicated that quality indicators had been developed from a wide range of sources drawn from Montessori philosophy, early childhood education and from within the centre (see Table 9).

Table 9: Sources used to develop indicators for self review

Montessori resources	Early childhood resources	Centre resources
Montessori philosophy	<i>Te Whāriki</i>	Centre philosophy
Montessori Journey to Excellence	Early childhood books like	Centre policies
Essential Elements and Quality	<i>Quality in Action</i>	Observation
Indicators	NZTC registered teacher criteria	Reflective questions
Ideas from MANZ Professional	Research articles online	Team conversations
Development workshops	ERO documents	Questionnaires from parents,
MANZ Conference	MOE reports.	past and present.
Reading from Dr Montessori's	ECE workshops	Feedback from primary
books	<i>Ngā arohaehae wahi hua</i> Self-	teachers.
Reading online articles, blogs	review guidelines for early	Developed our own.
about Montessori practice	childhood education .	
Books and web sites of	ERO evaluation indicators	
Montessori		

This data indicates that participants were aware of the need for indicators and were able to identify a wide range of Montessori and early childhood sources for the development of the indicators that had been used in self review. No conclusion can be made from these findings about if or how Montessori philosophy had been used to guide the development of the indicators for review. It is also not known how the indicators were used to guide data gathering and/or if the indicators were used to evaluate self review outcomes.

Changes to Montessori early childhood centre practice identified as a result of self review. Survey participants were asked what changes had been made to centre practice as a result of self review (see Table 10).

Table 10: Changes made to Montessori early childhood centre practice as a result of self review

Review Focus	Changes made to centre practice
Outdoor Environment	<ul style="list-style-type: none"> • Total indoor outdoor flow for entire day • One seamless environment rather than separate inside and outside. • Moved from using "allotted times" or "allotted children" to determine access to the outdoors to a free-flow. • Inside/outside programme that changes with the seasons. The activities offered reflect practical life, fundamental motor skills, and sciences (physical, natural and earth.) • Teachers in the outdoor area are expected to function exactly the same way they do inside - connecting children to activities then fading, sometimes organising a group activity, observing needs (NOT "supervising" and having adult conversations...!)
Prepared Physical, Social and Emotional Environment	<ul style="list-style-type: none"> • Change from communal morning tea to a "rolling" one. • Change in own thinking - what is the child's work • Changed the layout of the classrooms took away some activities which were not traditional Montessori. • Ensuring teachers work with conscious intent. • The way learning materials are presented (consistency) • Re-defined staff roles • Ways of managing ourselves and defining teacher roles is the biggest change we have made.
Montessori Curriculum	<ul style="list-style-type: none"> • Increased oral language games to improve children's vocabulary for writing • Changed the way we structure the art environment
Parents	<ul style="list-style-type: none"> • Using a greater range of media to provide families with understanding of Montessori philosophy. • Communication is more consistent to parents, and more systematic between classes and teachers. • Introduced orientation evenings for our new parent community
Transition to School	<ul style="list-style-type: none"> • Transition to school procedure - less checklists and more learning stories focussing on dispositional learning
Planning and Assessment	<ul style="list-style-type: none"> • Set up better record keeping systems and planning documentation so team know where each child is in their learning.

Participants were readily able to identify changes in centre practice as a result of their reported self review. Similarly to the choice of review focus, the changes identified as a result of self review indicate that some connections are being made between Montessori philosophy and centre teaching practice.

Sources for reflection on Montessori philosophy. Reflection requires teachers engage with information to guide their thinking about teaching and learning. Survey participants were asked to indicate where they sourced information for reflection on Montessori philosophy and practice. Participants indicated that the three most important sources of information they relied on was the Montessori knowledge of teachers within their own centre (90 percent), books by Dr Montessori (90 percent) and Montessori magazines (90 percent) (See Table 11).

Table 11: Sources of information used for reflection on Montessori philosophy and practice

Rank	Source	% chosen
1	Montessori knowledge of teachers within own centre	90
1	Books by Dr Montessori	90
1	Montessori magazines	90
4	Montessori training albums	84
5	Montessori online articles and websites	84
6	Montessori books by other authors	81
7	MANZ website	77
8	MANZ Conference	77
9	MANZ PD workshops in NZ	68
10	Montessori research articles	65
11	Networking with other Montessori centres	55
12	Early childhood professional development	45
13	Early childhood research articles	42
14	Early childhood magazines	39
15	Professional leader from within own centre or organisation	36
16	Montessori conferences overseas	19
17	Mentor teachers	13
18	Early childhood books	12
19	Networking online with Montessori teachers around the world	10
20	Montessori external consultants	10

Written sources of information (books by Dr Montessori, magazines, Montessori training albums, websites) were important to participants. Conferences and professional development provided by MANZ were also important. While participants had indicated that they desired more contact with other Montessori centres, this

currently was not a major source of information for them as indicated in Table 11. Even less used as sources for reflection were early childhood sources of information such as the professional leader in their own centre, mentor teachers, external consultants and contacts or networking with Montessori teachers around the world.

While survey participants in this study identified that reading books by Dr Montessori and Montessori magazines was important, it is not apparent what reflection or dialogue teachers had within their teams from reading of texts by Dr Montessori or contemporary Montessori writers.

6.2 The impact of the RTCs on reflection

The New Zealand Teachers Councils Registered Teacher Criteria provide a framework to guide reflection and professional learning for new and experienced teachers (New Zealand Teachers Council, 2010). In New Zealand all teachers must collect evidence that demonstrates how they meet the registered teacher criteria over a period of time. The impact of the requirement for teacher registration on reflection in Montessori early childhood centres is discussed below.

6.2.1 Registered Teacher Criteria: Focus groups. Teachers in the focus groups were asked how the registered teacher criteria have impacted on their ability to reflect on their teaching practice. Some teachers were negative about the registered teacher criteria and felt that they were going through the process of collecting evidence for each of the 12 registered teacher criteria for accountability purposes. One teacher explained:

I've got to show evidence that I'm meeting each one of them ... it's really a case of doing the paperwork. (FG2)

Two teachers did not find the process meaningful, describing it as a process to 'tick the boxes'. They felt the teacher registration process did not push them to set their own goals or strive to improve their teaching practice as explained by one teacher:

... I feel the pressure is really to tick all the boxes and it's not done in a particularly useful organic way of saying where am I now, what am I going to work on, it's more a matter of, here's this box, how can I show that I do that? ... so I don't find it useful for that reason ... (FG2)

However teachers did acknowledge that although ‘having to be registered’ was tedious the process had provided some guidance:

I think it was quite tedious ... but I think it's a good start, especially new teachers who are coming into teaching... (FG2)

A different teacher remarked that teacher registration was similar to the reflections she had been doing as an early childhood student and provided a way to revisit new learning:

I don't see it as a whole lot different to what I have been doing over the last four years ... it's just a carry on, like a reminder not to forget what you've learnt... (FG1)

The accountability demanded by the RTCs had provided one teacher with the impetus to record personal reflections:

... I guess that's part of being a teacher and an observer ... you're always testing and measuring so you're looking at what works ... you do those things on such a regular basis but it's actually stopping and reflecting on it and putting it on paper that's probably the important thing now. (FG3)

Another teacher remarked that the accountability ‘makes’ her record reflections that previously were just in her head so that she has evidence of her professional practice:

It's made me do it ... I'll write it down whereas before it would be in my head but not written down ... if someone looks in in my folder there's nothing there and the evidence isn't there ... (FG3)

The response of teachers in the focus groups to the requirement for teacher registration ranged from frustration with the process to acceptance that it was a process that ‘made’ them record their individual reflections and learning.

6.2.2 Registered Teacher Criteria: Survey participants. Survey participants were asked how often they used the registered teacher criteria to guide their professional journey. This was used ‘constantly’ by 32.3 per cent of survey participants, ‘frequently’ by 22.6 percent and ‘infrequently’ or ‘never’ by 45.2 percent (see Figure 6).

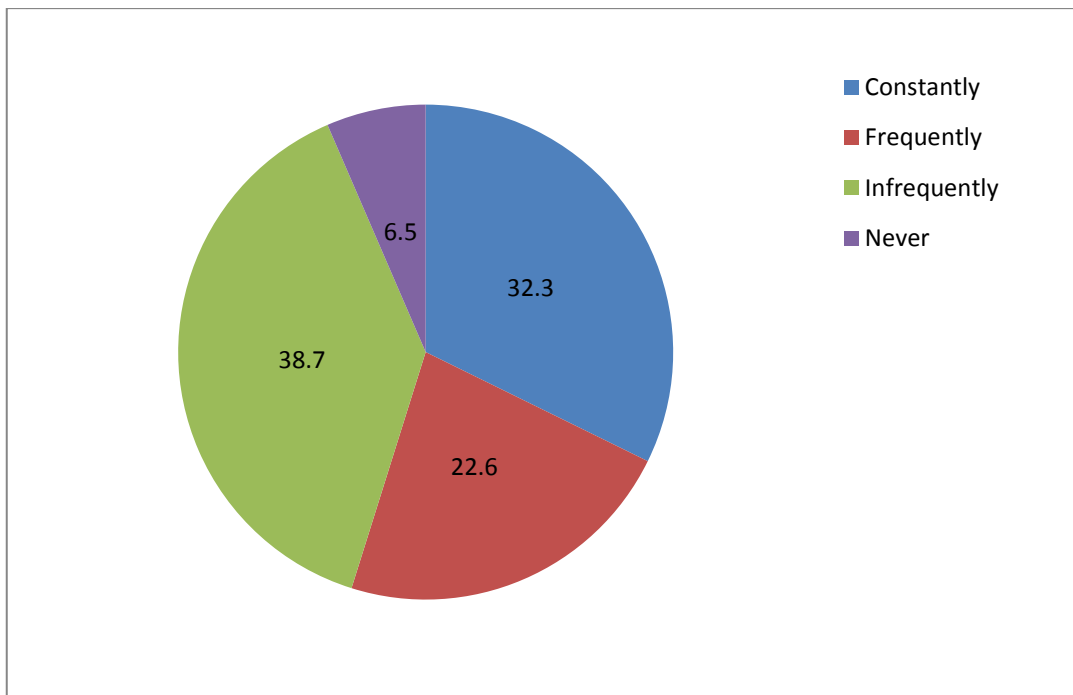


Figure 6: How often teachers use Registered Teacher Criteria (RTCs)

Survey participants were asked to give some examples of how the registered teacher criteria had supported them to be a ‘reflective practitioner’. One participant highlighted how her role mentoring provisionally teachers using the registered teacher criteria had led to more self-reflection:

Mentoring others towards registration requires that I continuously evaluate my own practices too. (S)

Another participant explained how her role mentoring another teacher not only led to her own reflection on how to offer mentor support but also to empowering the teacher to do more research on her practice:

Mentoring and guiding a colleague ...I reflect on how I can effectively support her through sharing professional dialogue, my teaching practice and empowering her to research and actively engage in her own reflection on and in her practice. (S)

One participant identified how reflection became deeper when it had to be recorded in registration folders and read by their mentor:

To me it is having a reflective journal. Even though I consider I have always been reflective (in my head) when I actually put pen to paper I seem to be deeper in my reflections. (S)

Another participant made a link between the RTCs and her understanding of Montessori philosophy:

In my mind the RTCs are mostly a re-statement, a mainstream statement if you will, of good Montessori practice - following the child, observing the need, offering possibilities, sharing with other colleagues.... all stuff you have to do to be "reflective". (S)

Participants mentioned using the RTCs to guide team discussions and reflections:

We currently take one reflective question each every week and write what this means to us. At the staff meetings we share our thoughts and interpretations ... (S)

The view that teacher registration was about ‘ticking boxes’ was also expressed by one survey participant expressed the view that felt that the registered teacher criteria constrained her reflection:

... by adhering to a checklist of criteria I was reflecting on some areas for the sake of ticking a box, and missing others because I couldn't make them fit... (S)

Other participants noted that the within their centres the registered teacher criteria were aligned to their job descriptions and appraisal systems and two participants also reported that the registered teacher criteria were used to mentor each other and for peer review.

Survey participants were asked who provided them with support to reflect on current teaching practice and to set personal and teaching goals. A range of supports were identified including the licensee of the centre, management team, head teacher, the teaching team, and the children. Only two participants noted that they had mentors from other centres who were described as other centre owners and an ex-tutor. Very few survey participants mentioned mentors as part of an educative mentoring programme proposed by the New Zealand Teachers Council (2011). Two participants noted that they were mentoring other teachers. However, only three participants, who were beginning teachers with provisional registration, talked about having a mentor

who was guiding their progression to meet the Registered Teacher Criteria to gain full teacher registration. In addition, when survey participants were asked to identify resources for reflection on Montessori philosophy and practice, only 15 percent or five survey participants identified ‘mentor teacher’ as a resource.

6.3 Chapter Summary

Self review documentation and comments made in the focus group interviews reveal that the teachers were uncertain about how to use the self review cycle. In this study several areas have been identified where the centres could strengthen their approach to self review such as using Montessori philosophy to decide on a focus for review, articulating clearly the focus question, the development of quality indicators for review, and gathering of evidence-based data to decide and assess pedagogical changes made during the review cycle.

The majority of participants involved in the survey indicated familiarity with self review and were able to describe sources used to develop indicators for self review. Changes made to centre practice as a result of their engagement in self review were identified, suggesting that self review does make a difference. The choice of review topics and the changes made as a result of self review reported by survey participants indicate connections between Montessori philosophy and centres’ teaching practice. In the survey the main sources of information for reflection were the Montessori knowledge of other teachers in the centre, books by Dr Montessori and Montessori magazines. However findings from this study do not reveal how focus group teachers or survey participants used Montessori philosophy to drive their review or inquiry or if the requirement for self review had led them to reflect more or differently on Montessori philosophy and their practice.

Some focus group teachers suggested that expectations imposed by the Registered Teacher Criteria had led to more recording of personal reflections. A number of teachers viewed the criteria as an accountability process to ‘get through’ during the teacher registration process and did not view it as meaningful in the context of their own reflective practice. A large proportion of survey participants reported that they infrequently or never used the Registered Teacher Criteria. A few participants in the survey reported that the registered teacher criteria had provided a framework for

centre reflection and peer support, however little mention was made of support from mentors.

Chapter Seven: Discussion

7.0 Chapter Overview

The aim of this study was to examine how teachers in Montessori early childhood settings in New Zealand currently engage in reflection on Montessori philosophy and their teaching practice. The findings from this study about current views of teachers in Montessori early childhood centres about the importance of reflection on Montessori philosophy and practice were presented in Chapter Four. In Chapter Five the enablers and barriers to reflection were identified and in Chapter Six the impact of the requirements for self review and teacher registration on reflection on Montessori philosophy and practice by individuals and teaching teams in New Zealand were discussed. In this chapter the findings are considered by reviewing the current approach to reflective practice revealed in this study, supported by relevant literature.

7.1 Current approaches to engaging in reflection in Montessori early childhood centres

The main findings of this study are discussed using the following sections; the views held by focus group teachers and survey participants on critiquing and interpreting Montessori philosophy, the impact of time and teacher qualifications on reflection, the importance of connections between teachers and Montessori centres to promote collaborative reflective inquiry and the current use of frameworks for reflection such as self review and the Registered Teacher Criteria are examined.

7.1.1 Current approaches: Views about critiquing Montessori philosophy.

An important aspect of this study was finding out what views teachers held about critiquing the century-old Montessori philosophy. Reflection was identified as a tool to make philosophy visible in teaching practice, however teachers had different responses to questioning and debating the theoretical perspectives of Montessori philosophy. Some teachers did not feel the need to question Montessori philosophy at all because they '*agreed Montessori was the ideal way for children to learn*' (FG2). Other survey participants felt that any perceived problems in Montessori resulted from their inability to enact or '*live the philosophy*' rather than inadequacies in the philosophy itself.

The majority of survey participants (83 percent) responded that they felt it was ‘very important’ to reflect if their personal values and beliefs were congruent with Montessori philosophy however the reluctance to critique Montessori philosophy was again revealed when most participants commented on aspects Montessori ‘practice’ that they did not agree with, rather than fundamental aspects of Montessori ‘philosophy’. Some participants appeared to view ‘critique’ of Montessori philosophy as a process that would reveal the inadequacies of Montessori education, rather than an opportunity to gain a deeper understanding of the robustness of Dr Montessori’s ideas and the continuing relevance of her philosophy today. Yet Wolf (as cited in Loeffler, 1999, p.41) reminds Montessori teachers that:

Montessori does have answers to many of our society's current problems. These answers lie not in her didactic apparatus, though they are useful tools, but in the unique psycho-social setting she asks us to create, and we need to understand this more clearly ourselves if we are to ask others to understand its power.

There was also a suggestion from teachers in focus group interviews and survey participants that there is an unspoken expectation for teachers to protect Montessori philosophy from critique or criticism. The reluctance to question Montessori philosophy suggests that teachers may find it challenging to critique in a professional community where they may be viewed as disloyal when they attempt to question accepted views and practices. Critique in early childhood education can be very difficult especially when “Entire lifetimes of expertise and experience may be thrown into question; disloyalties to curriculum documents and their personally known writers may pose stress-filled dilemmas” (Rhedding-Jones, 2002, p. 103) or in the case of Montessori education, disloyalty to a ‘alternative approach’ that a Montessori teacher may have spent years defending to parents, other early childhood teachers and perhaps the Education Review Office and Ministry of Education.

7.1.2 Current approaches: Views on interpretation of the Montessori ‘method’. In this study focus group teachers largely rejected the suggestion that Montessori education is delivered as a ‘static model learnt by rote’ (Chisnall, 2011). Some considered that Montessori education is responsive to the needs of individual children and that teachers improvise continuously to engage children. Miltich-Conway and Openshaw (1988) commented that Dr Montessori’s philosophies and techniques were modified and adapted to different educational and cultural expectations from those

she may have originally envisaged. In this study some survey participants appeared to support this view and suggested that Montessori education has changed over time and is responsive to the needs of diverse communities. The need to interpret Montessori philosophy to make sense within a specific context and community was described the following survey participant:

I think there are variations in interpretation of Montessori philosophy that are not necessarily right versus wrong but rather areas for centre teams to determine a good fit for them and their community. (S)

There is a perception that the ‘original and authentic’ method of Montessori education needs protection to maintain its integrity (Lillard, 2012; Roberfroid, 2013). This protective approach and focus on an ‘authentic model’ may have contributed to criticisms of Montessori education as “prescriptive” and inflexible” (Beyer, 1966 as cited in Gibbs, 2006 p. 145). Chisnall (2011) suggests that the approach to Montessori teacher training of “a careful showing of the Montessori Method” has not encouraged discussion or change by contemporary teachers.

It appears in this study that some focus group teachers and survey participants perceive that there is more than ‘one way to Montessori’, with the ‘model’ being continually adapted to meet the needs of individual children and the aspirations of different communities and cultures. Daoust (2004) researched the wide range of teaching practices that go by the name ‘Montessori’ in the USA to discover how much teachers adapt the approach. She found that some teachers were adapting consciously and while others were doing so unconsciously. Daoust (2004) concluded this was due to a lack of information or confusion about the Montessori approach and suggests that until the philosophy is well understood that practicing Montessori may seem “complicated and difficult to execute” (p. 30). The need to continually revisit philosophy so that it consciously guides practice was explained by one participant in the survey:

Montessori philosophy is the set of ideals that we compare our practice with, so we use this to critique our work... we sometimes look closely at Montessori philosophy and try to make sure that the way we are interpreting it in the 21st century fits with what we understand the original meaning to be. (S)

Beatty (2011) argues that Montessori teachers could choose between a “tighter original script or the looser modified version” (p. 407) and reflection may provide teachers with a tool to make informed decisions about which approach they adopt in their Montessori practice. Teachers who are actively engaged in reflection may be more conscious of any adaptations they were making and know why these choices were necessary. Bringing awareness to an aspect of philosophy or practice makes possible new understanding to guide changes or adjustments to teaching practice. To consciously adapt the classic model (Lillard, 2012) rather than co-opt (Nuttall, 2004) some superficial aspects of Montessori practice requires teachers to engage critically with the underlying theoretical or philosophical principles of Montessori education. Chisnall (2011) proposed an experimental model for Montessori education that “moves away from a non-interventionist interpretation which sees the model as static and one to be learned by rote” (p. 339) and it seems that some focus group teachers and survey participants supported this experimental approach.

7.1.3 Current approaches: Time and teacher qualifications. Survey participants in this study viewed reflection as an important tool to enable whole centre teaching teams to develop a shared understanding of Montessori philosophy so that “everyone’s pages are moving in the same direction” (Nuttall, 2013, p. 7). The majority of survey participants (91 percent) felt it was ‘very important’ to reflect on their team teaching practice and 90 percent of these participants also reported that reflection on Montessori philosophy and making links to their daily practice was a constant or frequent focus of their centre team meetings. The importance placed on reflection was also evident. The majority of survey participants (83 percent) indicated it was very important to reflect if their personal values and beliefs were congruent with Montessori philosophy.

Early childhood teachers in New Zealand are required to articulate their aspirations for children and to reflect on their personal and centre philosophies and teaching practice, however Claire Wells, CEO of NZ Kindergartens (personal communication, March 21, 2013) points out that “You can articulate it when you have time to stop and see it and then have time to reflect on it”. Despite the views of focus group teachers and survey participants in this study that reflection was important, it was challenging for centres to develop a culture that made reflection a priority.

The pressure of time was identified as the main constraint on reflection by teachers in focus groups and survey participants. While the most common frequency of centre team meetings in this study was greater than that reported by Healy (2012), the focus of the meetings supports her contention that early childhood teachers have restricted opportunities to create a space where they could “lose themselves in professional dialogue which was not issue orientated” (p. 114). The findings in this study support the view that team meeting time in early childhood centres often focuses on administrative tasks related to compliance or issues of accountability, rather than on reflection and professional growth (Hatherly, 1999; Searle, 2009 as cited in Grey, 2010; White, 2010).

This study reveals that aside from ‘social conversations’ during the day the only time that teachers have to meet, engage in dialogue and reflect on Montessori philosophy and practice is limited to weekly or fortnightly meetings of 1-2 hours. Teacher non-contact time appears to be taken alone and is focused on writing up children’s learning stories or doing administration tasks with little mention from focus group teachers or survey participants of using non-contact time to engage in professional dialogue with colleagues. Healy (2012) highlights that the increasing accountability of early childhood teachers was sometimes in ‘stark contrast’ to working conditions. In this study the workload undertaken outside centre hours was noted by many teachers in the focus groups and survey participants including team meetings in the evening, online discussions and sharing of resources, running evening parent information sessions, attending centre team meetings or professional development workshops on the weekend.

This study found that even when reflection was viewed as important, centre teaching teams appear to find it challenging to prioritise this in the limited time given to team meetings. Despite the survey participants’ perception that their teams constantly or frequently spent time reflecting on Montessori philosophy and relating this to daily teaching practice, it was still a challenge to make these reflective activities a priority in team meeting times. When survey participants ranked meetings topics by time the topic ‘exploring team understanding of Montessori philosophy’ was 24th in the ranking of 30 potential meeting topics from (1) most time to (30) least time. Nuttall (2004) describes how teachers avoided abstract discussions about centre philosophy and practice by ‘grounding’ or focusing on the concrete realities of the workplace. When time is short

and teachers are tired, the list of meeting topics is long and it is the end of the working day it is not surprising that teachers focus on the ‘easily solved’ aspects of practice.

Mitchell (2003) maintains that if early childhood centres are to be learning communities for teachers as well as children and parents, there needs to be opportunities within the work environment for reflection and suggested that the work environment must provide an “intellectual space” (p. 26) to foster professional dialogue and debate between professionals. It appears from this study that more consideration needs to be given to how teachers can be given the time and space for reflection individually and with other teachers.

Some teachers will be always be more open to reflecting than others, however the focus placed on reflective teaching practice in early childhood education in New Zealand appears to support the development of robust reflective processes in Montessori early childhood centres. In this study it was not possible to separate out survey responses to determine if there was a difference in approach to reflection by teachers with only early childhood qualifications or only Montessori qualifications. The overwhelming majority of survey participants (93 percent) held or were studying for at least one or more early childhood teaching qualifications that led to teacher registration while 73 percent also held Montessori qualifications. Teachers who have recently completed a New Zealand early childhood teaching qualification and New Zealand teacher registration will have some familiarity with teacher inquiry and the frameworks provided by self review and teacher registration. The majority of survey participants (73 percent) indicated that their teaching team was familiar with the process of self review. From these findings, it seems that the convergence of early childhood and Montessori teacher qualifications within centre teams places teachers in Montessori centres in New Zealand in a good position to engage in reflection and teacher inquiry regarding Montessori philosophy and practice.

7.1.4 Current approaches: Connections for reflection and dialogue.

Dissonance can be a powerful catalyst for making changes to practice (Atkin, 1996; Bird, 2013). Teachers must work together to support rigorous investigation and discussion, not to continue comfortable collaborations to merely share ideas or confirm current practice. In this study the majority of survey participants (75 percent) indicated that they felt safe when raising potentially difficult or controversial issues within their own teaching team. In contrast teachers in the focus groups were wary of

debating with teachers from other Montessori centres and shared that they felt either ‘silenced’ or ‘judged’ by their peers. Fleet and Patterson (2009) warn that in addition to appropriate time and space for professional learning, recognition must also be given to the importance of emotionally safe spaces for the risk taking inherent in personal professional disclosure.

Connections between Montessori centres are problematic due to time constraints and in some regions of New Zealand are hampered by a feeling of competitiveness and lack of collaboration between existing Montessori centres. One focus group teacher stated:

I think there probably still is a level of competitiveness within the Montessori environment, it's probably everywhere ... and there's always that, 'who's doing the best Montessori job out there?' and a real reluctance to share information and also to have those debates and that challenge of practice ... (FG3)

This lack of collegial sharing and collaboration is similar to that reported by Malm (2004) in Sweden among Montessori teachers.

Nuttall proposes that most effective professional learning happens on a whole centre and even a whole-system basis. “In other words, individual learning doesn't cause centres to learn, any more than whole centre learning causes individuals to learn; individuals and centres co-evolve in their development” (personal communication, 22 June, 2013). She suggests that the opportunity in New Zealand is to model professional learning on a whole system basis or at least beyond individual and centre basis. Her comments could also be applied to the Montessori professional community in New Zealand where professional learning could occur more collaboratively between individuals and across centres as an entire professional community. Indeed, Trochta (1981) asks that Montessori teachers do not limit their interest and focus to the “narrow confines of the classroom” (p. 7) but make connections to peers, organisations related to Montessori and to the field of education in general.

In this study, focus group teachers were clear about their desire to have connections beyond their own centre and the benefit that this would bring to their professional practice. Teachers from focus groups commented not only on the benefit from visiting and observing different classroom environments and teaching practices but also having the opportunity to have dialogue with other teachers and to learn new

perspectives and share knowledge at Montessori-focused professional development events.

7.1.5 Current approaches: Frameworks for reflection. The impact of self review and registered teacher requirements on reflection on Montessori philosophy and practice by individuals and teaching teams was part of this study. The effectiveness of self review in stimulating reflection may be limited by uncertainty about how to effectively use the self review or inquiry cycle (Ministry of Education, 2006). In self reviews projects conducted by two of the focus groups, several areas were identified where the centres could strengthen their approach to self review and make more use of Montessori philosophy to develop their centre philosophy and drive their centre practice.

The majority of survey participants (73 percent) reported that their centre had completed self review projects that focused on Montessori practice and philosophy, indicated they were familiar with the development of indicators for self review and were able to identify a wide range of Montessori and early childhood sources used by their teaching team to develop quality indicators for review. However it is not clear how these indicators were used to guide the review process or how much reflection on Montessori philosophy was made in the development of the indicators. While the choices of inquiry/review focus indicate some connection between Montessori philosophy and centre practice it is not clear if survey participants considered that the inquiry/review process had led them to reflect differently on Montessori philosophy, to develop new understanding or to make stronger connections between Montessori philosophy, centre philosophy and practice.

Survey participants indicated that the Montessori knowledge of other teachers in their centre was as important as books by Dr Montessori and Montessori magazines as sources of information for reflection. This finding appears to place a large responsibility on all teachers to be constantly updating their Montessori knowledge and sharing with other team members.

Aside from Montessori professional events it seems there is currently little use made of people from outside the centre to support reflection by participants and their teams. While survey participants identified sources of information that they used support reflect on Montessori philosophy, again it was not clear how this information

was used to engage more reflectively with Montessori philosophy during the inquiry process. Importantly, the finding that the Montessori knowledge of other teachers within the centre is one of the main sources of information for reflection appears to place a large responsibility on all teachers in the centre to be reading and keeping up to date with contemporary Montessori writing and to delve deeper into the work of Dr Montessori. Early childhood literature has been identified as an essential component of teacher inquiry (Price, 2012) and this study suggests that reading and discussing texts by Dr Montessori texts and contemporary Montessori writers and researchers should be an essential component of review and inquiry for teachers in Montessori early childhood centres. However, it was noted in this study that both the choice of review focus and the changes in teaching practice made as a result of self review indicate some connections are being made by participants between Montessori philosophy and centre teaching practice.

Focus group teachers and survey participants were also asked how engaging with the RTCs has impacted on their ability to reflect on their teaching practice. While many regarded the registered teacher criteria as an exercise in ‘ticking the boxes’, others were positive about the value of recording their reflections, gathering evidence for the criteria, reflecting on practice and using the registered teacher criteria as a stimulus for staff discussion. The fact that 45 percent of survey participants reported that they infrequently or never used the framework provided by the RTCs suggests the current impact of the RTCs on reflective practice by individual teachers is limited.

The lack of time for reflection may account for some of this negativity toward using the RTCs by focus group teachers and survey participants. Findings suggest that many focus group teachers and survey participants did not yet regard using the RTCs as an important tool to guide their own reflection and professional learning. In addition, few survey participants noted the role of mentors and no mention at all of any use of educative mentoring guidelines (New Zealand Teachers Council, 2012). This response is surprising given that the majority of teacher and survey participants in this study held NZ early childhood qualifications and should be familiar with the process of teacher registration. The use of the RTCs only became mandatory for all teachers in 2012 and perhaps it is not yet well understood that experienced and fully registered teachers, not only beginning teachers, are expected to engage with the RTCs to maintain their teacher registration. Patterson (2013) investigated the educative mentoring support given to

teachers in intermediate school settings in New Zealand and concluded that while the educative mentoring guidelines (New Zealand Teachers Council, 2012) were a “step in the right direction” (p. 59) there was now a need for the development of exemplary mentoring programmes to train and support mentors within the NZ education system.

7.2 Chapter Summary

In this chapter the current approaches to reflection by teachers and survey participants from Montessori early childhood centres were discussed. Engaging in reflection of Montessori philosophy may be hampered by a reluctance to critique Montessori philosophy. Some participants did not feel the need to critique Montessori philosophy since they viewed it as ‘valid’, while others were wary about sharing doubts or questions with colleagues in the wider Montessori community. This reluctance to critique Montessori philosophy was also revealed by a focus on ‘practice changes’ rather than reflecting and articulating centre understanding of Montessori philosophy.

Focus group teachers and survey participants in this study were aware of the variations in interpretation of Montessori philosophy that are evident in different teaching practices and of the view that there is a ‘right’ and ‘wrong’ way of practicing the philosophy. Some participants were uncomfortable with this perception that there is a ‘correct way’ enacting Montessori philosophy and regarded the issue of interpretation of philosophy and variations in Montessori teaching practice as an opportunity for reflection and dialogue to bridge theory and practice and for teachers to develop a shared understanding of Montessori philosophy that meet the needs of children and communities in their own context.

The importance of time to reflect individually and with other teachers was highlighted but it was found that even when reflection was viewed as important by participants, their centre teaching teams appear to find it challenging to prioritise reflection in the limited times given to team meetings. Engaging with Montessori philosophy to co-construct centre philosophy and teaching practice was limited in both team meetings and in individual teacher non-contact time.

The focus of early childhood education in New Zealand on teacher reflection and the high proportion of focus group teachers and survey participants who held early childhood qualifications suggest that Montessori teaching teams in New Zealand should

be well-placed to engage in reflective inquiry on Montessori philosophy and practice. The majority of survey participants indicated they were familiar with self review and the changes in practice reported indicate that some connections are being made between inquiry/review and centre practice. However this study also found that focus group teachers were uncertain about how to effectively use the inquiry or review cycle particularly in the development of quality indicators and the use of data collection at different stages of the inquiry cycle. The impact of the RTCs on teacher reflection appears to be limited, with a number of focus groups teachers in this study viewing it as an accountability process to 'get through'. In addition a large proportion of survey participants reported that they infrequently or never used the Registered Teacher Criteria.

The reluctance to critique Montessori philosophy and a lack of 'safe places' to have pedagogical debates and discussions with colleagues was discussed. More opportunities for dialogue appear necessary to enable teachers to begin make connections and debate and reflect on Montessori philosophy collaboratively. This will be discussed in more depth in the next chapter.

Chapter Eight: Conclusion

8.0 Chapter Overview

This thesis set out to investigate three research questions: the views teachers in Montessori early childhood centres currently held about the importance of reflection on Montessori philosophy and practice, the enablers and barriers to reflection and the impact requirements for self review and teacher registration in New Zealand had on reflection on Montessori philosophy and practice by individuals and teaching teams. Locating this study within a constructivist framework enabled the perspectives and experiences of teachers to be gathered to inform future thinking about reflection in Montessori early childhood centres.

In this chapter future approaches for engaging in reflection including the time, space and tools required are outlined and the use of teacher inquiry and reflection as a professional learning approach is proposed. The contribution of this research, implications for practice and possible future research are discussed. The limitations of this research study are commented on at the conclusion of the chapter.

8.1 Future approaches to engaging in reflection in Montessori early childhood centres

For centres that profess to ‘do Montessori’, reflection is essential in order that careful consideration is given to how Montessori philosophy is received, embraced and implemented in their setting. The findings in this study about the perceived importance and current engagement in reflection suggest that participants in this study are disposed to engaging more deeply in reflection and to use inquiry as a tool to articulate their practice. Supporting teachers to critically engage with Montessori philosophy is the next challenge for the professional community. This concluding chapter suggests some future approaches that could be taken to support teachers to reflect on Montessori philosophy and their teaching practice.

8.1.1 Future approaches: Reflection and inquiry as professional learning.

Professional learning where teachers are actively engaged in determining their own learning goals and generating local knowledge (Groundwater-Smith & Mockler, 2009) values the work that teachers do in their workplace to develop their ideas and

understanding about children (Edwards & Nuttall, 2009). Fleet and Patterson (2009) suggest that when professional learning moves beyond being “transmission-orientated” (p.17) or single session “‘fix-it’ offerings” (p. 18) to becoming focused on relationships and collaborative inquiry, teachers are not only more engaged but that changes in practice occur. This approach to professional learning requires teachers to be constant and active inquirers in their own learning through individual teacher reflection and collaborative team inquiry.

Engagement with Montessori philosophy would benefit from robust teacher inquiry and sharing of ‘teacher stories’ by teachers in Montessori settings. Chisnall (2011) notes that in addition to the knowledge held by an individual teachers, critical reflection on Montessori pedagogy will be enhanced by “a similar orientation in peers and mentors as they challenge and support each other in their reflections on practice” (p.339). While the majority of focus group teachers and survey participants in this study felt safe to raise controversial topics within their teaching team, they were more cautious about entering into debate about Montessori philosophy and practice with the wider professional community. However some focus group teachers and survey participants wanted to have connections with Montessori teachers beyond their centre and were keen to have dialogue that would lead to new perspectives and enable knowledge to be shared. The finding that the Montessori knowledge of other teachers within the centre is one of the main sources of information for reflection for teachers places a large responsibility on all teachers to be continually reading, re-discovering and sharing new understandings about Montessori philosophy and practice.

Many Montessori educators may be expert at applying aspects of Montessori education but from this study it appears that teachers focus on practice changes that occur at the ‘level of action’ rather than on critiquing centre understanding of Montessori philosophy, debating the fundamental premises of Montessori philosophy and collectively generating new professional knowledge. Nuttall (2004) uses the term ‘co-opting’ to describe how early childhood teachers simply adopt key terms from specialised curriculum discourses without making any changes to actual teaching practice. This is a risk in Montessori centres where key ideas from Montessori philosophy may be co-opted as tired clichés with a focus on superficial aspects of practice rather than the thoughtful adoption of underlying theoretical principles. The inquiry approach to professional learning has much to offer individual teachers and

centre teams that ‘espouse’ the Montessori philosophy and may provide an opportunity to move beyond this superficial level of co-opted practice. However this will require a shift in thinking about professional learning and Watson and Williams (2012) suggest that the re-conceptualisation of professional learning beyond workshops or conferences will take time:

There is a need to shift teachers’ perceptions from a view of professional learning as an occasional break away from the demands of the centre to stock up on some new ideas, to a focus on reflection and inquiry into one’s practice. This may not be easy, but it is vital if professional learning is to be effective and sustainable. (p.22)

If ‘fidelity’ to an original ideal (Lillard, 2012) remains the focus of the contemporary Montessori movement, with the emphasis on structural quality aspects such as Montessori teacher qualifications and the use of prescribed learning materials, then it seems that the opportunity to mine the gold (Rathunde, 2001) of Montessori philosophy may be lost. Reflecting deeply on Montessori philosophy, re-reading and debating Montessori texts with peers may provide some ‘nice surprises’ for teachers who discover that there is more forgotten about Montessori’s ideas than they realise and much that is relevant to their own time, place and setting. If daily practice of Montessori philosophy is recognised as an “on-going work of observation and research” (Chisnall, 2011, p.335) and reflections shared between practitioners this could lead to a new vitality in the Montessori professional community. Furthermore, reflection, collaborative inquiry and dialogue are tools that may enable teachers to be more conscious of how and why they are ‘adapting’ Montessori philosophy in their own unique setting.

8.1.2 Future approaches: Breathing spaces and connections. Taylor (2007) suggests that early childhood teachers need a ‘breathing space’ or a time and a place where the constraints of professional learning are eased, where teachers come together and are given the opportunity to take their thoughts to the end, to explain themselves, and where it is safe to challenge what had been said. This study investigated the experience of focus group teachers and survey participants in making connections and sharing their learning with other teachers. It appears that teachers in Montessori early childhood centres need support to develop strategies to find the both time and breathing space for increased dialogue within their teaching team and to also make learning

connections with colleagues from other Montessori early childhood centres. Teachers would benefit from the creation of ‘safe spaces’ where they can engage with colleagues from other Montessori centres in debate and discussion so that current practice of Montessori education in New Zealand becomes based on critical engagement with the underlying theoretical or philosophical principles of Montessori education.

MacNaughton (2005) developed a vision for building skills, passion and commitment to make a difference in young children’s lives using what she called ‘critically knowing early childhood communities’ and suggests that these could be based in a locality, across several localities via face-to-face networks or via the internet. Teacher conversation groups have also been suggested as a low-cost, sustainable, satisfying and potentially transformative form of teacher professional development:

Our collective experiences put the lie to the cynical view that when teachers have the freedom to talk together, they waste that time on superficial, petty, trivial matters. (Clark, 2001, p. 172)

The deliberate development of safe ‘breathing spaces’ could enable teachers in Montessori early childhood centres to engage in a collaborative, inquiry-based approach to professional learning. In this such a ‘space’ teachers will share their inquiry learning, to debate aspects of their practice and their interpretation of Montessori philosophy with their peers.

8.1.3 Future approaches: Tools for reflection. This study proposes that the inquiry stance of the New Zealand early education system positions teachers well to contribute to the collaborative process of continually co-creating Montessori education suggested by Ungerer (2012). However more can be done to improve connections, tools, skills, resources and knowledge available to these teachers so that they can engage in a process of challenge and change in their own centres and share their inquiry learning with wider Montessori community.

Understanding what Dr Montessori wrote and intended is not easy as the focus group teachers and survey participants indicated. The relationship between Montessori philosophy and the intended practice is complex, and any superficial interpretation should be regarded with some suspicion. If the ‘work to be done’ is to engage the ideals of Montessori philosophy in centre practice, then more effective use of existing tools or

strategies and the provision of new ‘tools’ and strategies may be needed to support teachers with this task.

From this study it appears that teachers in Montessori early childhood settings in New Zealand require more support to engage effectively with the existing tools for reflection provided by self review and the Registered Teacher Criteria. Grey (2010) saw two possible approaches to self review either as a technical exercise of measuring compliance to externally formed criteria or practical philosophy approach involving reflection and dialogue about the philosophical values underpinning individual and centre practice. She suggests that early childhood teachers could use externally prescribed criteria as a frame of reference to base valuable reflections on practice and that as teachers interpreted and discussed the criteria they could reach a shared understanding of practice and the values underpinning practice.

This lack of robust review processes reported in this study may limit the impact of the requirement for self review on reflection on Montessori philosophy and practice by individuals and teaching teams. The development of the essential elements and quality indicators in the Montessori Journey to Excellence *Te ara ki huhuatanga* may offer ‘external criteria’ or a ‘pedagogical framework’ to guide and support self review. The Montessori Journey to Excellence *Te ara ki huhuatanga* may provide a new tool to provoke reflection as teachers use the quality indicators to debate, discuss and develop their centre’s co-constructed understanding of Montessori philosophy and use this to guide their centre practice and to develop a culture of inquiry within their centre. However, teachers need support to better understand how to utilise the inquiry/review cycle and to use Montessori philosophy to drive their inquiry/review. Using the Montessori Journey to Excellence *Te ara ki huhuatanga* may provoke tensions and dialogue that will move centre inquiry beyond comfortable collaborations to confirm existing practice.

Another existing tool to support reflection is the Registered Teacher Criteria. However it appears that more work is needed to support both the understanding and implementation of the Registered Teacher Criteria in Montessori early childhood centres. There is no research yet available in New Zealand that indicates whether the range of responses of teachers to using the RTCs in this study are similar to other early childhood teachers or unique to Montessori early childhood centres. From her work with intermediate school teachers Patterson (2013) suggests there was a need to develop

mentoring programmes to train and support mentors within the New Zealand education system. If the Registered Teacher Criteria are to provide “an aspirational framework of continued professional learning” (New Zealand Teachers Council, 2010, p. 2) then it appears that this suggestion deserves more focus right across the whole educational community, including early childhood.

Some new tools or opportunities are also needed to support teachers in Montessori early childhood centres to engage in collaborative reflection on Montessori philosophy and practice. Teachers need support to develop the professional skills to engage in collaborative inquiry and dialogue; to listen, give feedback to peers and to engage in peer and educative mentoring. More diverse opportunities for both online and face-to-face connections between teachers isolated by time and geography deserves more attention with connections that go beyond meeting at professional events and lead sharing of deeper sharing of ideas, robust debate and collaborative inquiry. Online support may provide teachers in different Montessori early childhood centres the cost and time-efficient opportunities to join collaborative, reflective professional learning groups or networks. Thornton (2009) identifies that the blended approach, utilising both face-to-face meetings and online interaction offered a richer learning experience since strong and trusting relationships could be developed face-to-face enabling sustained reflection and sharing online. This approach is being investigated further with the 12 centres involved in the Montessori Journey to Excellence Pilot Programme, however more work will be needed to engage teachers from other Montessori centres around New Zealand.

8.2 Contributions of research

This research project sought to discover the current views of teachers to reflection on a century-old Montessori philosophy, the challenges teachers faced in the workplace that made reflection difficult, the opportunities they had to engage in reflection and the impact the requirements in New Zealand for self review and teacher registration currently had on reflection by teachers in Montessori early childhood centres. The contribution of this research, implications for further research and recommendations for practice are discussed before the limitations of this research are outlined at the conclusion of the chapter.

The research builds on other findings in New Zealand early childhood education that show that teachers benefit from having time to engage in professional dialogue, to develop and articulate their personal philosophies and to have time to engage with their teaching team to co-construct centre philosophies to guide their practice (Grey 2010; Healy 2012; Taylor, 2007). This study indicates teachers in Montessori early childhood centres face similar challenges as those in other early childhood centres including lack of time and centre structures that support reflection with colleagues and lack of contact with teachers in other centres.

It is anticipated that this research may be of interest to managers and leaders in Montessori early childhood centres to increase their awareness of the importance of reflective practice and the need to provide ‘breathing spaces’ for teachers to engage meaningfully, within their own centre teams and with colleagues in the wider Montessori professional community in New Zealand. The findings suggest that self review requirements should be regarded as a tool for professional learning, not an accountability exercise by centre teams and centre management. The study makes a small contribution to research on engagement with the Registered Teacher Criteria as part of teacher registration by early childhood teachers in Montessori early childhood centres.

This research also makes a contribution to international Montessori research by providing a snap-shot of the views of teachers in Montessori early childhood centres in New Zealand regarding reflection on Montessori philosophy and practice. While some focus group teachers and survey participants in this study were reluctant to question and debate the theoretical perspectives of Montessori philosophy, others saw reflection as an opportunity to move beyond the approach of a ‘right and wrong way’ of doing Montessori education that was reported in Sweden by Malm (2001). Reflective practise made visible by self review may enable teachers to engage critically with the underlying theoretical or philosophical principles of Montessori education, with the support of their peers.

8.2.1 Implications for practice. Implications for practice that can be drawn from this study include a greater understanding of the importance of reflective practice as a tool for professional learning. The following recommendations are made for centre managers, principals and leaders in Montessori early childhood centres:

1. Attention needs to be paid to the provision of paid time for teachers to engage in reflection, individually and with colleagues in their teaching team.
2. Teachers require more support to gain professional knowledge and skills needed to engage more effectively with teacher inquiry (appraisal and registration) and centre inquiry (self review and strategic plans).
3. Teachers need to be given support and time to be continually learning, re-discovering and sharing new understandings about Montessori philosophy and practice.
4. Montessori early childhood centres need to consider how to support and facilitate professional connections beyond their immediate centre team so that more 'breathing spaces' for reflection and inquiry on Montessori philosophy and practice can be created and sustained in the wider Montessori professional community.

8.2.2 Implications for future research. This study has only looked at teacher views, perceived barriers, opportunities and frameworks for reflection and inquiry in Montessori early childhood centres in New Zealand. It would add more to the understanding of the importance of inquiry in Montessori education if the following suggestions were researched in more depth.

1. How external criteria such as the Montessori Journey to Excellence quality indicators can be used to guide self review or inquiry in Montessori early childhood centres.
2. How teaching inquiry can be utilised to provide an evidence-base for learning outcomes for children in Montessori early childhood centres.
3. In what ways can a focus on inquiry and review taken in the New Zealand education system lead to innovative approaches in Montessori education.

8.3 Limitations of the research

There were several limitations to this small scale research study.

Focus Groups

Focus groups are often used at the initial stage of a study to gather information and then followed up with in-depth individual interviews to allow the researcher to arrive at more meaningful conclusions to provide a basis for further investigation

(Flores & Alonso, 1995). In this study teachers were not interviewed individually. If individual interviews had been possible a greater range of views may have been collected.

Survey Response

The participants who responded to the survey self-selected into this research and this may have resulted in a biased sample of teachers within Montessori early childhood centres. It is not possible to know if these teachers had more interest in reflection or whether they provided a representative view of all teachers in Montessori early childhood centres.

Researcher's Role

My role as executive officer for MANZ and my professional relationships with participants in this study may have had an impact on their responses. While the ethical issues and chance of coercion that my position posed were taken into account, it is not possible to know if my dual role as researcher and executive officer affected the responses given by focus group teachers or the response rate of survey participants.

8.4 Conclusion

A significant challenge for teachers in Montessori early childhood education is to be able to talk consistently about what Montessori education achieves and to discuss this in words that people understand. The ability of teachers to articulate their practice and the learning outcomes of Montessori education will be enabled by critical engagement with Montessori philosophy through reflection and collaborative inquiry.

There needs to be both the willingness and 'breathing space' for individual teachers and teaching teams to critically reflect on Montessori philosophy and its influence on centre philosophy and practice. From this study it appears that more support is needed to improve skills and knowledge about how the cyclical process of review and inquiry and teacher reflection will engage with Montessori philosophy, inform centre philosophy, drive centre practice and support individual teacher professional learning. Becoming more familiar with self review or inquiry and gaining support through connections with teachers in other Montessori centres may provide the

space for teachers to strengthen their reflection on Montessori philosophy and enable deeper and more critical inquiry into centre philosophy and practice for all participants.

Reflection, inquiry and collaborative dialogue may provide important tools to assist teachers to delve more deeply into Montessori philosophy and discover hitherto undiscovered aspects of Dr Montessori's writing that can guide their teaching practice.

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Appendices

Appendix 1: Information letter and consent form for Montessori Aotearoa New Zealand president



Faculty of Education

Information Letter for Montessori Aotearoa New Zealand president

Research Project: Critical Reflection in Montessori Early Childhood Settings in Aotearoa New Zealand

Researcher: Ana Pickering

... October, 2012

Dear _____

My name is Ana Pickering and I am a Masters student at Victoria University of Wellington. I am writing to request the permission of Montessori Aotearoa New Zealand to approach your member centres and teachers in a research project on critical reflection in Montessori early childhood centres.

I am interested in how individual Montessori teachers and teaching teams critically reflect on the Montessori pedagogy and their own practice. The research aims to provide essential information about critical reflection by individual teachers and their centre's teaching team prior to the intervention of pilot programme in 2013-14.

My research focuses on how individual Montessori early childhood teachers and teaching teams critically reflect on the gaps between their espoused pedagogy and their 'theory in action' or teaching practice. I am interested in evaluating the following:

1. What views Montessori teachers currently hold about critical reflection on Montessori pedagogy and practice.
2. How the requirement for self-review and teacher registration has impacted critical reflection of Montessori pedagogy and practice by individuals and teaching teams.
3. What resources and conditions identified by teachers support reflection and what barriers to reflection do teachers identify, that are relevant for Montessori early childhood services.

My research is in two phases. Phase One is an anonymous online survey of Montessori teachers in early childhood centres that are members of MANZ and teachers who are individual members of MANZ. Phase Two includes three focus group interviews of teaching teams drawn from the centres selected for the Montessori Journey to

Excellence *Te ara ki huhuatanga* Pilot Programme 2013-14. The focus group interviews will include the two participants from selected centres involved in the pilot programme and any other teachers that are willing to be involved in the discussion.

I will also be examining documentation from the three centres such as ERO Reports, self review projects and teacher journals.

All data collected will be kept confidential and secure and will be destroyed five years after the conclusion of the project.

This research has been assessed and approved by Victoria University Faculty of Education Ethics Committee. If you have any questions about the ethical issues associated with this research you may contact Dr Allison Kirkman, chair of the Victoria University of Wellington Human Ethics Committee by emailing allison.kirkman@vuw.ac.nz

If MANZ Council requires any further information about the project please contact my supervisors:

Dr Kate Thornton School of Education Policy and Implementation Victoria University of Wellington e: Kate.Thornton@vuw.ac.nz p: 04 463 9659	Dr Mary Jane Shuker School of Education Policy and Implementation Victoria University of Wellington e: Mary-Jane.Shuker@vuw.ac.nz p: 04 463 9659
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Nga mihi nui,



Ana Pickering

**Consent form for Montessori Aotearoa New Zealand president
Research project: Critical Reflection in Montessori Early Childhood Settings in
Aotearoa New Zealand**

Researcher: Ana Pickering

- I have read the information letter about the research project
- I have had the purpose of the research explained to us.
- I understand that participants' responses will be treated as confidential.
- I understand that the research data will be securely stored and destroyed five years after the completion of the research project.
- I consent for early childhood centres and teachers belonging to our national organisation to be invited to participate in the online survey.
- I consent to MANZ member centres and individual members being contacted using the MANZ email database.
- I consent for early childhood service centres belonging to our national organisation and selected for the Montessori Journey to Excellence *Te ara ki huhuatanga* Pilot Programme to be invited to participate in focus groups.

Montessori Aotearoa New Zealand President:

Signature:

Date:

Appendix 2: Information letter for teachers involved in online survey



Faculty of Education

Information for teachers involved in online survey

Research project: Critical Reflection in Montessori Early Childhood Settings in Aotearoa New Zealand

Researcher: Ana Pickering

My name is Ana Pickering and I am a Masters student at Victoria University of Wellington. I am writing to invite you to participate in a research project on critical reflection in Montessori early childhood centres.

I am interested in how individual Montessori teachers and teaching teams critically reflect on the Montessori pedagogy and their own practice. I am interested in evaluating the following:

1. What views Montessori teachers currently hold about critical reflection on Montessori pedagogy and practice.
2. How the requirement for self-review and teacher registration has impacted critical reflection of Montessori pedagogy and practice by individuals and teaching teams.
3. What resources and conditions identified by teachers support reflection and what barriers to reflection do teachers identify, that are relevant for Montessori early childhood services.

My research is in two phases. Phase One is an anonymous online survey of Montessori teachers in New Zealand. Phase Two includes three focus group interviews of teaching teams from the centres selected by MANZ for the Montessori Journey to Excellence *Te ara ki huhuatanga* Pilot Programme 2013-14.

You are invited to participate in an anonymous survey; it will take between 20-30 minutes to complete. By completing this survey you are consenting to participate in the research. Participation in this survey is optional and your responses will not be able to be identified.

To complete the survey please click on the link below. Survey responses must be received by ... to be included in the research study.

All data collected will be kept confidential and secure and will be destroyed five years after the conclusion of the project.

This research has been assessed and approved by Victoria University Faculty of Education Ethics Committee. If you have any questions, please feel free to contact me e: anaelizabeth@xtra.co.nz. If you have any questions about the ethical issues associated with this research you may contact Dr Allison Kirkman, chair of the Victoria University of Wellington Human Ethics Committee by emailing allison.kirkman@vuw.ac.nz

If you require any further information about the project please contact my supervisors:

Dr Kate Thornton School of Education Policy and Implementation Victoria University of Wellington e: Kate.Thornton@vuw.ac.nz p: 04 463 9659	Dr Mary Jane Shuker School of Education Policy and Implementation Victoria University of Wellington e: Mary-Jane.Shuker@vuw.ac.nz p: 04 463 9659
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Nga mihi nui,



Ana Pickering

Appendix 3: Online survey questions

Thank you for taking the time to participate in this anonymous online survey. My study includes this online survey which is being sent to Montessori teachers throughout New Zealand.

I will also conduct focus group interviews with teaching teams from three of the nine Montessori ece centres selected for the Montessori Journey to Excellence Te ara ki huhuatanga pilot programme.

The research aims to provide essential information about critical reflection by individual teachers and their centre's teaching team prior to the intervention of pilot programme in 2013-14.

I am interested in:

1. how individual Montessori early childhood teachers and teaching teams critically reflect on the gaps between their espoused pedagogy and their 'theory in action' or teaching practice.
2. the impact of the requirements in New Zealand for self review (Ministry of Education and Education Review Office) and for teacher registration (NZ Teachers Council) have had on critical reflection on Montessori pedagogy and practice by teachers and teaching teams.
3. the resources and conditions identified by teachers that support reflection and any barriers to reflection that are relevant for Montessori early childhood services.

The survey should take between 20-30 minutes to complete. You can return to previous pages to edit your responses prior to completing the survey.

Your responses are anonymous and you cannot be identified in any way. Please encourage your colleagues to also complete this online survey. Thank you for contributing to this research.

Ana Pickering

Survey questions

Preliminary information

1. What is your centre's location?

Urban
Suburban
Rural

2. What is the total number of licenced places in your centre?

Less than 20
21-40
41-60
61-80
81-100
100+

3. How many classrooms does your centre have?

One
Two
Three
Four

4. What is the age range in each class?

Birth to three
18 mths to three
Two to three
Under two to five
Three to five
Three to six

5. Select the option that describes the ownership of the centre

A single privately owned centre
A single community owned centre
One of a regional group of privately owned Montessori centres
One of a regional group of community-owned Montessori centres
A privately owned Montessori centre that is part of a regional group of early childhood centres
A privately owned Montessori centre that is part of a national group of early childhood centres

6. Select ALL the options that describe your position(s) in your centre

Principal
Centre manager
Centre owner
Classroom teacher
Lead or head classroom teacher
Classroom co-teacher
Outdoor teacher

7. Do you currently hold a Montessori diploma?

Yes/No/Currently studying for a Montessori diploma

8. What Montessori diploma(s) do you hold or are you studying for ?

Aperfield Montessori Diploma
Montessori Centre International Diploma
Association Montessori International Diploma
American Montessori Society Diploma
NAMC Diploma
St Nicholas Montessori Diploma
London Montessori Centre Diploma
Other (please specify)

9. Do you hold a teaching qualification that leads to NZ teacher registration?

Yes/No/Currently studying for a teaching qualification

10. What qualifications do you currently hold or are studying for that lead to NZ teacher registration?

B. Ed (Montessori Early Childhood Teaching) from AUT University
Early childhood diploma from NZ tertiary provider
Early childhood degree from NZ university
B. Ed (Montessori Primary Teaching) from AUT University
Primary teaching degree from NZ university
Early childhood teaching qualification from overseas
Primary teaching qualification from overseas
Other (please specify)

11. What category of NZ teacher registration do you hold ?

Full teacher registration
Provisional teacher registration
Subject to confirmation
No teacher registration

Teaching teams look different in each Montessori centre. This section helps define who you consider is involved in the teaching and learning of the children in your centre.

12. Who is part of your teaching team?

All the teachers in the centre
Just the teachers in my classroom
Other

13. How many teachers in your teaching team?

1/2/3/4/5/6/7/8/9/10 other

14. Select the options that describe your teaching team - you may need to select several options.

Some members of team are studying for early childhood diploma or degree
Some members of team are studying for Montessori diploma
All members of team have Montessori qualifications
All members of the team have early childhood qualifications
Some members of the team have Montessori qualifications
Some members of the team have early childhood qualifications
Some members of the team have no Montessori or early childhood qualifications
I do not know this information

15. Indicate below the type of noncontact meeting time your whole centre and teaching team has:

Daily meeting

Weekly meeting

Fortnightly meeting

Monthly meeting

Biannual meeting g

Annual meeting

Please note any other meetings not covered above

16. Select the options below that best describe the amount of noncontact time for each type of meeting:

<30 min

30 min

1 hour

1-2 hours

half day

full day

two full days

17. How often do your meetings reflect on your team's understanding of Montessori philosophy and relate this to daily practice?

Never

Rarely

Frequently

Constantly

18. How much time do the following topics usually take up at team meetings?

Takes up alot of time Takes up some time Takes up little time

Planning for school trips

Review of centre routines

Enrolments

Whole centre planning

Classroom planning and review

Centre policy review

Centre staff social activities

Communication with parents

Strategic planning

Reflecting on teaching practice

Dealing with team issues

Individual child planning and assessment

Planned Self Review

Planning community events

Spontaneous Self Review

Budgets

Purchase of resources

Purchase of Montessori materials

Compliance documentation

Health and safety issues

Exploring team understanding of Montessori philosophy

ERO Action Plans

Centre staffing schedules

Settling new staff

Professional development plans

Transition of children into or out of centre
Centre finances
Parent interviews
Please add your comments

19. Describe what other agenda items may be discussed in your team meetings?

This set of questions focuses on your views about critically reflecting on Montessori pedagogy and your teaching practice.

20. Do you think that Montessori teachers feel they are 'permitted' to critique Montessori philosophy?

Yes/No/Unsure.

Share your thoughts

21. In what ways does your understanding of Montessori philosophy empower you to critically reflect on your own teaching practice?

22. Describe any barriers you feel exist to critical reflection on Montessori philosophy and practice?

This next set of questions focuses on the critical reflection by your teaching team.

23. Indicate how important it is for Montessori early childhood teaching teams to critically reflect on team teaching practice?

Very important 1 2 3 4 5 Unimportant

24. How often do your team meetings reflect on aspects of teaching and learning?

Never/Rarely/Frequently/Constantly

25. A safe and trusting culture must exist so that teachers feel confident to participate in reflection, particularly when the dialogue can be discomfoting. How safe do you feel when raising difficult issues with your teaching team?

Very safe 1 2 3 4 5 Very unsafe

26. What centre routines, resources and support enable your team to reflect on Montessori philosophy and practice?

27. Indicate where your centre gets information from to reflect on Montessori philosophy and practice? Select ALL the options that apply to your centre below.

Montessori training manuals or albums

Montessori books written by Dr Montessori

Montessori books written by other authors

Montessori research articles

Montessori magazines

Montessori online articles or websites

Montessori blogs

MANZ annual conference in NZ

Montessori focused professional development in NZ

Montessori conferences overseas

Early childhood books

Montessori knowledge of teachers in own centre

Networking with other Montessori teachers in other centres in NZ

Networking online with other Montessori teachers around the world

Montessori external consultants employed by our centre

Mentor teachers from outside our centre
Professional leaders from within our centre or organisation
Early childhood research articles
Early childhood magazines
Early childhood focused professional development
Share any comments

The next set of questions focuses on how the requirement for self review has impacted on critical reflection of Montessori philosophy and practice in your Montessori centre.

28. How familiar is your teaching team with self review?

Very familiar 1 2 3 4 5 Unfamiliar

29. Has your centre completed any self review projects that focused on Montessori philosophy and practice? If so what were the topics and year the review was completed?

30. How did you develop or source quality indicators for these reviews?

31. Describe any changes you have made to your centre's Montessori practice as a result of self review?

This last set of questions asks you to focus on your own personal teaching practice.

32. Have you ever articulated your personal values and beliefs about teaching and learning?

Yes/No

33. How important is it to reflect whether your personal values and beliefs are congruent with Montessori philosophy?

34. Describe any aspects of Montessori philosophy that you do not personally agree with.

35. To what extent does the Montessori practice in your centre reflect your personal understanding of Montessori philosophy?

Always 1 2 3 4 5 Never

36. What aspects of your centre's current practice would you like to change so that your personal understanding of Montessori philosophy is more explicit in daily practice?

37. How often do you use the NZTC Registered Teacher Criteria to guide your professional journey as a teacher?

Constantly/Frequently/Infrequently/Never

38. Give some examples of how the NZTC Registered Teacher Criteria support you to be a 'reflective practitioner'?

39. Do you seek feedback on and/or share your personal practice inquiry with your teaching team?

40. Who supports you to reflect on your current teaching practice and to set your personal and teaching goals?

Appendix 4: Information letter and consent form for centre

owner/manager/principal



Faculty of Education

Information letter for centre owner/manager/principal

Research project: Critical Reflection in Montessori Early Childhood Settings in Aotearoa New Zealand

Researcher: Ana Pickering

... October, 2012

Dear _____

My name is Ana Pickering and I am a Masters student at Victoria University of Wellington. I am writing to invite your centre teaching team to participate in a research project on critical reflection in Montessori early childhood centres.

I am interested in how individual Montessori teachers and teaching teams critically reflect on the Montessori pedagogy and their own practice. The research aims to provide essential information about critical reflection by individual teachers and their centre's teaching team prior to the intervention of pilot programme in 2013-14.

My research focuses on how individual Montessori early childhood teachers and teaching teams critically reflect on the gaps between their espoused pedagogy and their 'theory in action' or teaching practice. I am interested in evaluating the following:

1. What views Montessori teachers currently hold about critical reflection on Montessori pedagogy and practice.
2. How the requirement for self-review and teacher registration has impacted critical reflection of Montessori pedagogy and practice by individuals and teaching teams.
3. What resources and conditions identified by teachers support reflection and what barriers to reflection do teachers identify, that are relevant for Montessori early childhood services.

My research is in two phases. Phase One is an anonymous online survey of Montessori teachers in New Zealand. Phase Two includes three focus group interviews of teaching teams drawn from the centres selected for the Montessori Journey to Excellence *Te ara ki huhuatanga* Pilot Programme 2013-14. The focus group interviews will include the two participants involved in the pilot programme and any other teachers that are willing

to be involved in the discussion. I will also be examining documentation from the three centres such as ERO Reports, self review projects and teacher journals, prior to the focus group interview.

The focus group interview would take place at a time and place designated by your centre. The interviews would be audio recorded and transcribed. Each teacher will be sent the transcript to allow them to check for accuracy and make changes if they wish. The names of the centre and teachers remain confidential to the researcher and pseudonyms will be used. Teachers can withdraw from the study without giving a reason up to the final point of data collection without being disadvantaged in any way. The research findings will be presented at education conferences and written in educational journals and Montessori publications. The data will be kept in a locked file and destroyed after five years.

If you would be willing for your centre's teaching team to participate in a 1-2 hour focus group prior to the end of Term 4, 2012 please reply to this email to indicate your willingness to participate. The centre consent form below and individual teacher consent forms will be collected at the time of the focus group.

This research has been assessed and approved by Victoria University Faculty of Education Ethics Committee. If you have any questions about the ethical issues associated with this research you may contact Dr Allison Kirkman, chair of the Victoria University of Wellington Human Ethics Committee by emailing allison.kirkman@vuw.ac.nz

If your centre requires any further information about the project please contact my supervisors:

Dr Kate Thornton School of Education Policy and Implementation Victoria University of Wellington e: Kate.Thornton@vuw.ac.nz p: 04 463 9659	Dr Mary Jane Shuker School of Education Policy and Implementation Victoria University of Wellington e: Mary-Jane.Shuker@vuw.ac.nz p: 04 463 9659
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Nga mihi nui,

Ana Pickering

Consent Form for Centre Owner/Manager/Principal

Research project: Critical Reflection in Montessori Early Childhood Settings in Aotearoa New Zealand

Researcher: Ana Pickering

I have read and understood the letter of explanation from Ana Pickering which describes this research project and We/I agree to our centre participating in the research

I understand that:

- That consent has been gained from MANZ to conduct this research.
- It is voluntary for our centre to take part in this research and will not affect our involvement in the Montessori Journey to Excellence *Te ara ki huhuatanga* Pilot Programme.
- It is voluntary for teachers from our centre to take part in this research.
- The two teachers who will represent our centre in the Montessori Journey to Excellence Pilot Programme and as many other teachers who are willing will form the focus group.
- Written permission will be sought from each participating teacher.
- The names of the centre and teachers remain confidential to the researcher and pseudonyms will be used.
- The information provided will be kept confidential to the researcher and the person who transcribes the audio recordings of interviews.
- Centre documentation such as self review projects and teacher journals may be sought prior to the focus group interviews.
- Teachers will participate in a 1-2 hour focus group and this will be audiotaped and transcribed.
- Teachers will have the opportunity to read transcripts of the focus group and give feedback to improve accuracy of the data and to clarify any meanings.
- Teachers may withdraw any information provided for this project at any time prior to completion of data collection.

- Teachers can withdraw from the study without giving a reason up to the final point of data collection without being disadvantaged in any way.
- The research findings will be presented at education conferences and written in educational journals and Montessori publications.
- The data will be kept in a locked file and destroyed after 5 years.
- I agree that our centre can be part of the study.

Centre: _____

Centre Owner/Manager/Principal's name: _____

Signature: _____

Date: _____

Appendix 5: Information letter and consent form for teachers



Information letter for teachers

Research project: Critical Reflection in Montessori Early Childhood Settings in Aotearoa New Zealand

Researcher: Ana Pickering

... October, 2012

Dear _____

My name is Ana Pickering and I am a Masters student at Victoria University of Wellington. I am writing to invite your centre teaching team to participate in a research project on critical reflection in Montessori early childhood centres.

I am interested in how individual Montessori teachers and teaching teams critically reflect on the Montessori pedagogy and their own practice. The research aims to provide essential information about critical reflection by individual teachers and their centre's teaching team prior to the intervention of pilot programme in 2013-14.

My research focuses on how individual Montessori early childhood teachers and teaching teams critically reflect on the gaps between their espoused pedagogy and their 'theory in action' or teaching practice. I am interested in evaluating the following:

1. What views Montessori teachers currently hold about critical reflection on Montessori pedagogy and practice.
2. How the requirement for self-review and teacher registration has impacted critical reflection of Montessori pedagogy and practice by individuals and teaching teams.
3. What resources and conditions identified by teachers support reflection and what barriers to reflection do teachers identify, that are relevant for Montessori early childhood services.

My research is in two phases. Phase One is an anonymous online survey of Montessori teachers in New Zealand. Phase Two includes three focus group interviews of teaching teams drawn from the centres selected for the Montessori Journey to Excellence *Te ara ki huhuatanga* Pilot Programme 2013-14. The focus group interviews will include the two participants involved in the pilot programme and any other teachers that are willing to be involved in the discussion. I will also be examining documentation from the three centres such as ERO Reports, self review projects and teacher journals.

The focus group interview would take place at a time and place designated by your centre. The interviews would be audio recorded and transcribed. Each teacher will be sent the transcript to allow them to check for accuracy and make changes if they wish. The names of the centre and teachers remain confidential to the researcher and pseudonyms will be used. Teachers can withdraw from the study without giving a reason up to the final point of data collection without being disadvantaged in any way. The research findings will be presented at education conferences and written in educational journals and Montessori publications. The data will be kept in a locked file and destroyed after five years.

If you would be willing to participate in a 1-2 hour focus group prior to the end of Term 4, 2012 please reply to this email to indicate your willingness to participate.

Your individual consent form, and consents from other teachers and the centre will be collected at the time of the focus group. You may also choose to make available reflections from your personal teaching journal or from your teacher registration folder for this study.

This research has been assessed and approved by Victoria University Faculty of Education Ethics Committee. If you have any questions about the ethical issues associated with this research you may contact Dr Allison Kirkman, chair of the Victoria University of Wellington Human Ethics Committee by emailing allison.kirkman@vuw.ac.nz

If your centre requires any further information about the project please contact my supervisors:

Dr Kate Thornton School of Education Policy and Implementation Victoria University of Wellington e: Kate.Thornton@vuw.ac.nz p: 04 463 9659	Dr Mary Jane Shuker School of Education Policy and Implementation Victoria University of Wellington e: Mary-Jane.Shuker@vuw.ac.nz p: 04 463 9659
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Nga mihi nui,

Ana Pickering

Consent form for teachers

Research project: Critical Reflection in Montessori Early Childhood Settings in Aotearoa New Zealand

Researcher: Ana Pickering

I have read and understood the letter of explanation from Ana Pickering which describes this research project and I agree to participate in the research

I understand that:

- That consent has been gained from MANZ to conduct this research.
- Permission has been sought for our centre to participate in this research project.
- It is voluntary for me to participate in this research study.
- Written permission will be sought from each participating teacher.
- The names of the centre and teachers remain confidential to the researcher and pseudonyms will be used where appropriate.
- Centre documentation such as self review projects and teacher journals may be sought prior to the focus group interviews.
- At least two teachers from our centre will participate in a 1-2 hour focus group and this will be audiotaped and transcribed.
- The information provided will be kept confidential to the researcher and the person who transcribes the audio recordings of interviews.
- I will be able to read transcripts of the focus group and give feedback to improve accuracy of the data and to clarify meanings.
- I understand that I may withdraw any information that I have provided for this project at any time prior to completion of data collection.
- I can withdraw from the study without giving a reason up to the final point of data collection without being disadvantaged in any way.
- I can choose to make my personal teaching journal or registered teacher portfolios available for this study.

- The research findings will be presented at education conferences and written in educational journals and Montessori publications...
- The data will be kept in a locked file and destroyed after 5 years.
- I agree to be part of the study.

Centre: _____

Teacher's name: _____

Signature: _____

Date: _____

Appendix 6: Transcriber confidentiality agreement



Faculty of Education

Transcriber Confidentiality Agreement

Research project: Critical Reflection in Montessori Early Childhood Settings in Aotearoa New Zealand

Researcher: Ana Pickering

I, have agreed to transcribe three interviews for the research project: *Critical Reflection in Montessori Early Childhood Settings in Aotearoa New Zealand*.

I agree to keep the information from the recorder files confidential and to protect the identity of the participants.

Signature of the transcriber:

Date:.....

Appendix 7: Focus Group Interview Questions

Research Question One: What views do Montessori teachers currently hold about critical reflection on Montessori pedagogy and practice?

Focus Group Interview Questions

1.1 Reflection is considered an essential aspect of practice in many professions; as Montessori teachers tell me about your understanding of the importance of reflection?

1.2 Montessori pedagogy has been described as a ‘static model that is to be learned by rote’; what is your response to this description?

1.3 In what ways do you feel empowered to question and debate the theoretical perspectives of Montessori philosophy?

1.4 In any philosophy, there are challenges and difficulties in interpretation. In what ways do you feel empowered to question and debate the varying interpretations of Montessori philosophy and different practices of Montessori theory-in-action?

1.5 In what way(s) do you think being an early childhood centre using a Montessori approach impacts your team’s ability to reflect on your teaching practice?

Research Question Two: What resources and conditions identified by teachers support critical reflection and are there any barriers to reflection that are relevant for Montessori early childhood services.

Focus Group Interview Questions

2.1 What support, activities, routines and resources enable your centre to reflect on your daily practice of Montessori philosophy?

2.3 What barriers exist to reflecting on Montessori pedagogy and practice in your centre or in the wider Montessori community?

2.2 Can you recall a time when your teaching team did not agree on an aspect of Montessori philosophy or practice and how this was resolved?

2.4 Research is clear about the importance of learning in dialogue and in community; what opportunities would help you to engage in more professional talk time within your centre or with the wider Montessori community?

Research Question Three: What impact have the requirements for self review (Ministry of Education and Education Review Office) and for teacher registration (NZ Teachers Council) had on critical reflection on Montessori pedagogy and practice in New Zealand?

Focus Group Interview Questions

3.1 Has your centre completed any self review projects that focused on Montessori pedagogy and practice? If so what were the topics of review?

3.2 Describe any changes you have made to your centre's Montessori practice as a result of self review.

3.3 How have the New Zealand Teachers Council Registered Teacher Criteria impacted on your ability to use critical reflection on your professional practice