Montessori leadership philosophy re-examined and its influence on education quality as embodied in contemporary Montessori settings.

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Philosophy of Montessori
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Dedication

I dedicate this research study to the legacy of Maria Montessori and her Montessori Theory of Child Development, developed to guide children to reach their full potential and make the world more peaceful. Additionally, for all those who have gone before whose *individual intent* has helped humanity to develop an authentic Montessori approach in their own life and to support others.

Acknowledgement

I would like to acknowledge the three-year Research Training Program scholarship from the Australian government which provided the opportunity to study this original and significant post graduate research.

Over the many years this study has taken to reach fruition, many people have been consistent supporters of Montessori research, including my daughter Ellen, sisters Jenny and Mary, Sarah Breckenridge, Fiona Campbell, Sally Connellan, Matty and Dirk van Drempt, Julia Hilson, Liz Holt, Raji Sivapalan and Karlisa Smy.

Many thanks go to my editor and the Montessori peer reviewers for all their time to read various drafts and their guidance.

Declaration and Copyright

The thesis statement contains no material previously published or written by another person without reference made to the author/s. I made all reasonable efforts to secure any copyright permissions and have not knowingly added copyright content to this study. I apologise in advance for any author's work that I may have inadvertently misrepresented in any way, especially regarding my emerging understanding of Indigenous Knowledge. However, I am not sure you can produce an authentic Australian study without incorporating Indigenous information.

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Abstract

Maria Montessori's philosophy and education are over 100 years old. Exploring the substance of Montessori's theory and how it has been embedded over time, is at the heart of answering this thesis statement. In Australia there are in operation 264 Montessori settings affecting the potential of thousands of children (Australian Children's Education and Care Quality Authority (ACECQA), 2021), all guided by a variety of leadership styles, and having varied outcomes and successes. Given the need to update old philosophies to current contexts, there is a need to re-examine Montessori leadership philosophy and quality education as it is embodied in contemporary Montessori education to support leaders. Moreover, little empirical data-driven research has been completed in the Montessori leadership field and none within the Australian context.

The research highlighted what quality in Montessori education should look like, including *keystone* elements such as, Montessori trained and prepared educators and leaders; observations of the children in the classroom; multi-aged classes; uninterrupted work periods encouraging independence; specific developmentally designed materials supporting sensory learning and movement; individualised learning and following the child's interests through child directed work; partnership with parents and a prepared environment to remove obstacles from the child's development (Joosten, 1970; Lillard, 2005; Montessori, 1913/1965). These fundamental quality elements are underpinned by Montessori's theories of the human tendencies, the absorbent mind, planes of development and sensitive periods (Montessori, 1913/1965). Montessori was specific on what was required to open a Montessori School and it was completing the Montessori training (Standing, 1957).

Therefore, the study is a critical appraisal of Montessori's writings relevant to educational leadership, as well as an empirical study of leaders of Montessori settings who are influenced by, stakeholder's perspectives, Montessori organisations' advice, government legislation and requirements, and noticeably the leader's own perspective and experience. In addition, the study outlines some established educational leadership theories that may align with Montessori leadership themes, such as the need for altruism, humility, and patience. Moreover, understanding the importance of a leader's *individual intent*, which must include humility, patience, the rightness and wrongness of actions, fairness, tranquility, courage,

patience, perseverance, altruism, curiosity, creativity, love of learning, self-discipline, good manners, and respect.

Through using a mixed methods approach the study places at the forefront Montessori's own voice in this area to refresh and clarify her established messages. Stakeholders were questioned to seek insights of Montessori settings and their perceptions of quality settings. Additionally, the behaviour leaders use that support Montessori's vision, and any barriers to implement a Montessori leadership approach. The data gathered validated how Montessori leadership is enacted at ground level in Australia.

The outcome of the findings has informed, expanded, and refined current and future Montessori leadership and quality in Montessori settings. All participants commented on quality, with leaders considering educators the most influential for quality and the lowest influence was having balanced mixed age groups in classrooms. Meanwhile educators perceived the highest quality education factor as both themselves (educators) and planning, reflecting, and assessing children, with the lowest impact on quality perceived as having balanced mixed age groups. Montessori trainers, deputies and coordinators all identified planning, reflecting, and assessing children the highest and both a prepared environment and balanced mixed age groups slightly lower. Moreover, Montessori consultants and administration staff rated all areas for quality as equally important. Furthermore, when asked to clarify how government compliance influences Montessori leadership enactment, leaders perceived this influence as much lower than all the other participants.

Chapter 1: Overview of the Study, Montessori in Australia

*"The child should absorb with our help…so when they have reached adulthood…then no matter what ideology would come thereafter, they would have a basis of judging its positive and negative facets." (*Montessori, Mario, 1956, p.17)

"…economies fall apart fairly regularly, and you don't want to be on the bottom of them when they do…I need to who them how to read patterns and see past, present and future as one time, and let them navigate the system themselves" (Yunkaporta (2019, p.88).

"The early years are critical for establishing self-esteem, resilience, healthy growth and capacity to learn." (ACECQA, 2021)

"Leaders create a positive culture… that promotes enthusiastic, independent learners, committed to lifelong learning." (AITSL, 2021)

"Equipping every student to grow and succeed in a changing world."
(Gonski, Arcus, Boston, Gould, Johnson, O'Brien, & Roberts, 2018, p. 12)

1.1 Introducing the Study.

Howieson (1984) as a leader of peace and supporting change at Greenham Common Peace Camps, in England, acknowledged that individuals must "believe passionately in the power within each of you to effect change". Dr Maria Montessori (1870-1952) certainly held the same sentiment, belief, passion and ultimately faith in her power to change how to support children's development so each child can reach their full potential, and as a leader of peace too, inspired children to create a peaceful world too. "To think and to wish is not enough. It is action which counts" (Montessori, 1913/1965, p. 171). Moreover, Mandela (1994) stated that courage is the triumph over fear and being brave is conquering that fear. "Peace is what every human being is craving for, and it can be brought about by humanity through the child" and Montessori also argued that human's work must be based on three laws "love, know and serve" (Montessori, 1946/1989, p. 86). She began to completely reconceptualise children's education as she had observed perceived gaps in their education. Montessori researched and developed her pedagogical ideas about children using empirical methods, through extensive observation, experimentation, theory development and engaging in collaboration with other experts in the educational field (Standing, 1957). Montessori

argued that the current educational approaches did not meet children's needs or respect their innate motivations to learn and develop and required 'new' adults to support them (Kramer, 1976). The construction of Montessori's theory led to the Montessori Method's development being heralded as a new approach to education with the first Montessori settings being established in 1907. "This method… produces a reformed school" (Montessori, 1913/1965, p. 276) and she placed the reformed school's emphasis on "follow the child as their leader" (Montessori,1956/1970, p. 7).

Montessori outlined how adults should learn and implement the elements of her philosophy, materials, and curriculum. She asserted it was vital to engage adults who are positive role models, who demonstrate morals, respect, humility and who are both fair and trustworthy (Montessori, 1913/1965). Montessori stated, at the opening of the second Montessori setting on 7th April 1907, that the person leading the setting would be living in the tenement building too, living by the families, "dedicating her time and her life to helping those about her" (Montessori, 1913/1965, p. 62). Montessori education she contended, was the key to the children's holistic progression and outcomes enabling them to achieve their full potential (Standing, 1957). Kouzes and Posner (2007) researched the selfless aspects of the 'exemplary leader' who looks beyond themselves to the vision that is the force that invents the future. They identified that such leaders engage the hearts of many. Researchers McKenzie and Kernig (1975) also stated that educational settings should be designed "ideally that each and every child finds their learning needs fully catered for and anticipated to the full" (p. 17), with adults placing themselves "in the child's shoes" (p. 22). During a public lecture in Paris in 1949 Montessori stated her hope for the child's development,

> *"Education depends on a belief in the power of the child and on a certainty that the child has within himself the capacity to develop into a being that is far superior to us. He will not only be capable of a better way of living but will be the only person who can show us this"* (Montessori, 1949/1992, p. 101)

Yunkaporta (2019) echoes the need for humans learning how to develop a better way of living. He explains that understanding the indigenous perspective is vital to bring balance to human life,

> "*…we need to recover enough cognitive function to correct the impossible messes civilisation has created….an ancient seed of narcissism that has flourished due to a*

new imbalance in human societies… There is a pattern to the universe and everything in it, and there are knowledge systems and traditions that follow this pattern to maintain balance, to keep the temptations of narcissism in check." (p. 3).

There are 264 settings with Montessori in their name in Australia (ACECQA, 2021). Comparatively, England has 700 settings (Montessori Education UK, (ME UK) 2018) and United States of America has 4,500 (North American Montessori Teachers Association (NAMTA), 2017). To this day anyone, whether they have knowledge of Montessori or not, can establish and run a setting anywhere in the world and call it "Montessori". However, Montessori had evolved her approach for implementation in a particular way to achieve the intended results. The materials, in particular, were seen as a patentable system and Montessori was concerned that they would become,

"*…the focal point of the method, instead of the principles on which their development and use had been based, the result would be something closer to a business than a theory, a commercial venture rather than a chapter in the history of education*" (Kramer, 1976), p. 166).

Kramer (1976) additionally spoke about the effect no patent had on the Montessori approach,

"…the movement became a business, a kind of franchise operation in which Montessori had a vital stake in such matters as copyright of the materials and official certification of teachers. Her name became a brand name which could not be used without her permission" (p. 156).

Leaders of Montessori settings come from a range of backgrounds and bring a wealth of experiences, although many have not trained in Montessori philosophy and practice. However, Montessori was extremely specific on what was required to "open a school and call it a Montessori School" (Standing, 1957, p. 73). Namely that once participants in Montessori training courses received their diploma it "entitled the holder to open a school… Two years later, if the student had worked in a Montessori class and proved satisfactory as a Montessori educator, their diploma was endorsed to that effect" (p. 73). In addition, Montessori perceived virtues and morals, such as courage (Montessori, 1942/1970, p. 225), patience (p. 278), and perseverance (p. 266) need to be intrinsic attributes for a leader in Montessori. Studies that have contributed to the Montessori leadership field include

Mackenzie (1994) and Lillard (2005). These researchers argued that potential leaders of Montessori settings need to possess not just an understanding of Montessori's philosophy but a deep knowledge of practice. Montessori and Gandhi met in October 1931 when he spoke at the Montessori Training College, London (Standing, 1957). Gandhi (1945/2012, p. 190) stated that "what we need is educationalists and originality, fired with true zeal, who will think out from day to day what they are going to teach their pupils." One of the most common obstacles Montessori staff face with non-Montessori trained principals "is the firm traditional school belief that all programs must be treated similarly" (Mackenzie, 1994, p. 12). Mackenzie determined that traditional requirements, policies, procedures and curriculum compliance would violate Montessori instructional practices.

Many studies have previously been conducted to explore various aspects of leadership and quality in education; however, leadership has rarely been researched in the Montessori field and not at all within Australia. Specifically, studies in leadership to re-examine Montessori's original concept of leadership utilising her approach, and how this approach then influences the quality of the education received. Montessori placed great importance on the development of leaders and conducted lectures on school management in 1906 at the University of Rome (Trabalzini, 2011). Researchers have demonstrated (Connolly, James & Fertig, 2017; Fullan, 2014; Whitaker, 2013) the impact leadership can have on, not just the quality, but all aspects of an educational settings.

Currently there are no mandatory leadership qualifications for an early childhood director or school principal in either mainstream or Montessori settings in Australia. The Australian Government does not acknowledge or recognise (except the three-six Diploma) or require educators (trained at any age level) to hold a Montessori diploma. Some Montessori settings employ leaders who hold a recognised university teaching degree but have no training or experience with the Montessori philosophy. There are a few Montessori training courses for leaders and not one applies Montessori's requirement that the leader must hold a Montessori diploma to lead a school (Appendix 1).

Operational pedagogical decisions are made by Montessori school leaders, which furthermore highlights the influence that leadership has on the educational quality offered in Montessori settings. For educators the length of time required to participate in Montessori training, in addition to the financial implications of Montessori training, leads to mainstream

educators without Montessori training or experience in Montessori settings, potentially being employed to run Montessori classrooms. Additionally, trained Montessori educators might be allocated to a class they are not trained to teach in, for example a three to six educator in a six to nine aged classroom due to the settings needs at the time and a lack of trained staff.

The researcher has many years of professional experience in Montessori education in a variety of roles and different settings (Appendix 8). The support and development of all stakeholders in Montessori settings continue to be a consistent priority for the researcher. A combination of observations, experiences and research in these settings has resulted in the researcher reassessing the Montessori approach to leadership in Australia. Leadership impacts every area of an educational setting and Fullan (2014) stresses that the outcomes of leaders, educators and students are interrelated and hinge on quality leadership.

Consequently, this study aims to critically appraise Montessori philosophy on educational leadership and quality, through building an understanding of how Montessori leaders interpret the philosophy, which in turn effects the quality of education for children aged birth to 12 years. Effective leadership in Montessori settings is essential to support implementation of Montessori education which affects thousands of children's outcomes and development in Australia, and globally. Although the research focuses on Montessori settings, the research will draw on existing literature on leadership research, theory and educational policies, including Australian quality assurance.

1.2 The Research Questions

The research problem foci are that there are no accepted frameworks for leaders of Montessori settings to establish and maintain quality education. The absence of recognised operational frameworks indicates inconsistent approaches, variable quality and non-adherence to Montessori philosophy and practice. Leaders come to a leadership role with experience, knowledge, and their own personal beliefs. Moreover, leaders may have limited understanding of Montessori education when they assume roles in Montessori settings. The research question for this study is how stakeholders perceive the leader's practice of Montessori philosophy and their impact on the quality of education across the setting. Educators and leaders across Australia were provided with the opportunity to offer their perspective on implementing a Montessori leadership approach. The outcomes of the study

have informed, refined and expanded the understanding of leaders and educational quality in Montessori settings in Australia. The research questions posed were:

- how do leaders in Montessori settings embody Montessori philosophy in practice?
- how do Montessori leaders interpret Montessori philosophy?
- how do leaders practice their understanding of Montessori philosophy?
- how is quality education understood in the Australian context?
- what is quality education in a Montessori context?
- how do educators perceive leaders practice Montessori philosophy?

The research objectives were to investigate what traits in leaders will support Montessori's vision for settings to flourish. Additionally, to examine if Montessori's definitive outline of a Montessori educator and educational approach is a plausible approach for Montessori leadership. Furthermore, to find a solution and improve insights to the gap in knowledge in the Montessori leadership field, from Montessori's vision to contemporary implementation.

1.3 Origins of Montessori Education

At the end of the 1800s Montessori completed her training in medicine and was appointed Assistant Doctor at the Psychiatric Clinic at the University of Rome. Hence, the opportunity to study children with complex needs and challenging behaviours arose. Montessori theorised that children's mental deficiency should not necessarily be viewed as medical conditions. She hypothesised that through special educational treatment the children's mental abilities could be immensely enhanced (Standing, 1957). Montessori conducted her research and developed a theory and a way of radically restructuring education (Kramer, 1976). Yunkaporta (2019) argues that

> "*From an Aboriginal cosmological point of view, the uncertainty problem is resolved when you admit you are part of the field and accept your subjectivity…scientists currently have to removed all traces of themselves from experiments, otherwise their data is considered to be contaminated. Contaminated with what? With the filthy reality of belongingness"* (p. 49).

Previous views and theories on education that Montessori studied included Johann Pestalozzi (1746-1827), Friedrich Froebel (1782-1852), Jean-Marc Itard (1774-1838) and Eduard Seguin (1812-1880). Pestalozzi was an educational reformer who believed in the individual's ability to learn and their right to an education. He argued that society was responsible for putting this right into practice. Froebel formulated the kindergarten system of education. He believed in teaching children how to learn, observe, reason, express and create through play, using philosophies of unity and interconnectedness. Itard and his student Seguin had developed materials to stimulate the senses to educate children with additional needs (Kramer, 1976; Lillard, 2005; Standing, 1957). Through observations and continuing to develop and adapt these materials and equipment, Montessori was able to analyse the impact they enacted in children (Montessori, 1913/1965). The result was the philosophy, materials and supporting curriculum found in many Montessori settings today. Montessori's studies led to establishing settings to foster the children's development to such an extent that the children went on to achieve the same results on state exams as typically developing school children (Lillard, 2005).

Furthermore, Montessori influenced other educational pioneers including Jean Piaget (1896-1980) and Lev Vygotsky (1896-1934) (Feez, 2010; Mooney, 2000) and Erik Erikson (1902-1994) (Mooney, 2000; Kramer, 1976). Trabalzini (2011) states that the Montessori Method is seen as a classic text on international pedagogical thought. In Italian education she is considered one of the most eminent figures with an international legacy that has long been acknowledged outside the Montessori sector. Additionally, Mooney (2000) states that all early childhood programs today have been influenced by Montessori. Yunkaporta (2019) explains that it is important to see "the overall shape of the connections between things" (p. 89). Moreover, Montessori started from one fundamental assumption,

> "*…the goal of Montessori education is the formation of the child's whole personality*" (Mario Montessori, 1976, p. 90).

Explicitly, giving full support to the child so they can reach their potential, which is achieved through fostering their independence, their capability to use peaceful conflict resolution and their ability to guide their own work needs (Lillard, 2005). Contemporary researchers of positive psychology (Park & Peterson, 2009) similarly support the whole person approach. These researchers stated that it is desirable to focus on people's strengths,

learning to understand their feelings, behaviours and thinking so ensuring people reach their full potential. Although Montessori's education approach is over 100 years old, she was one of the only educators of her time concerned with the holistic development of every child as the central tenet.

1.4 The Montessori Approach and Philosophy

Montessori's approach to quality education is outlined in her extensive writings and those of her son, Mario Montessori. She advocated for children's early education and to aid human intellect she advocated for education through the senses. Her educational philosophy stated that a child's choice of specific activities supports their mind to concentrate and reach its full intellectual potential (Colgan, 2016). Although there are many components that are vital to implement quality Montessori education there are some essential *keystone* elements of Montessori including Montessori trained and prepared educators and leaders; observations of the children and class; planes of development supported through multi-aged classes; uninterrupted work periods encouraging independence; specific developmental designed materials supporting sensory learning and movement; individualised learning and following the child's interests through child directed work; partnership with parents and a prepared environment to remove obstacles from the child's development (Joosten, 1970; Lillard, 2005; Montessori, 1913/1965). All these fundamental elements are underpinned by Montessori's theories of the human tendencies, the absorbent mind, and sensitive periods (Montessori, 1913/1965). These *keystones* of Montessori education and her theories of human development have established clear definitions for the system to operate (Joosten, 1970; Lillard, 2005; Montessori, 1913/1965). The word *keystone* has been coined in this thesis statement and relates directly to the Roman engineering principles in building an arch with the keystone, as without the keystone the arch collapses. The *keystone* in Montessori terms is the child and all aspects of Montessori education support their development (Figure 11).

Lillard stated that learning should be in meaningful contexts, and the way that the adults interact with children affects outcomes and an ordered environment are key principles. Lillard (2005) outlined eight principles that she said, "emerged in the early days of Montessori education" and are "deeply engrained in the Montessori system" (p. 29). These include the benefits of movement, a sense of control and collaboration, enhancing wellbeing

and learning, interest in the subject matter and intrinsic rewards positively impacting motivation. The Montessori philosophy is based on the understanding that a child's education must be viewed in its entirety (Montessori, 1948). Montessori said that children given freedom will develop character and they will naturally learn through activity (Montessori, 1936/1983).

Montessori's concept of developmental psychology was built on the complete framework of planes of development which are a series of new beginnings as the child matures (Montessori, 1936/1983). Montessori argued that human development is not linear but occurs in cycles and develops the mind of the child from an unconscious thinker to a conscious contributor to society. The periods of development occur from birth to six, six to 12, 12 to 18 and finally, 18 to 24 years of age. Unique characteristics are displayed by children, particular to each of the six-year time frames (Isaacs, 2012).

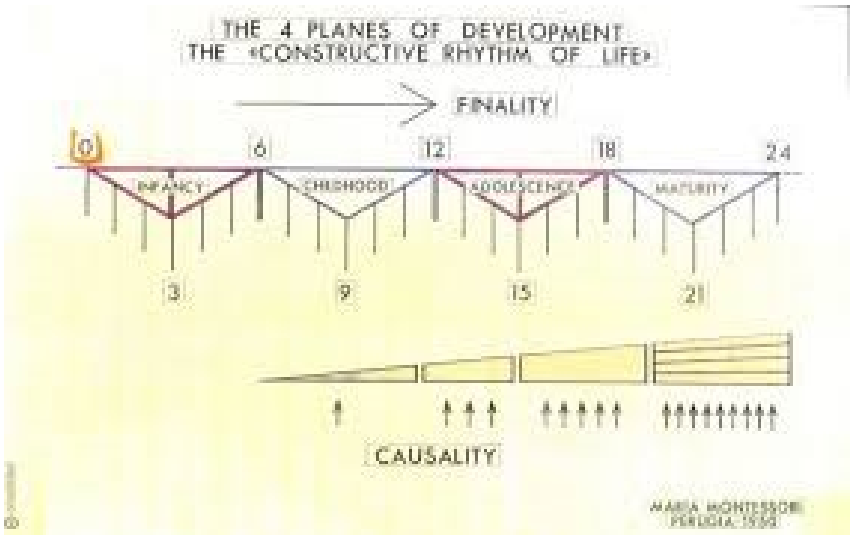


Figure 1: The Four Planes of Development. (Montessori, 1932)

These planes of development intertwine with what Montessori described as 'sensitive periods.' She said,

> *"At particular epochs of their life, children reveal an intense and extraordinary interest in certain objects and exercises, which one might look for in vain at a later age. During such a period the child is endowed with a special sensibility which urges him to focus his attention on certain aspects of his environment to the exclusion of others. Such attention is not the result of mere curiosity; it is more like a burning passion. A keen emotion first rises from the depths of the unconscious and sets in*

motion a marvellous creative activity in contact with the outside world, thus building up consciousness." (Standing, 1957, p. 120)

These universal sensitive times in a child's life reveal the child's intense interest in an area, e.g., language development, movement, writing, order, reading, small objects, grace and courtesy and refinement of the senses. Sensitive periods create an intense engagement in the formation of neural pathways in the developing child's brain. The Montessori pedagogy bases teaching and learning practices to reflect these sensitive periods during specific times in a child's life (Cossentino, 2010; Lillard, 2005).

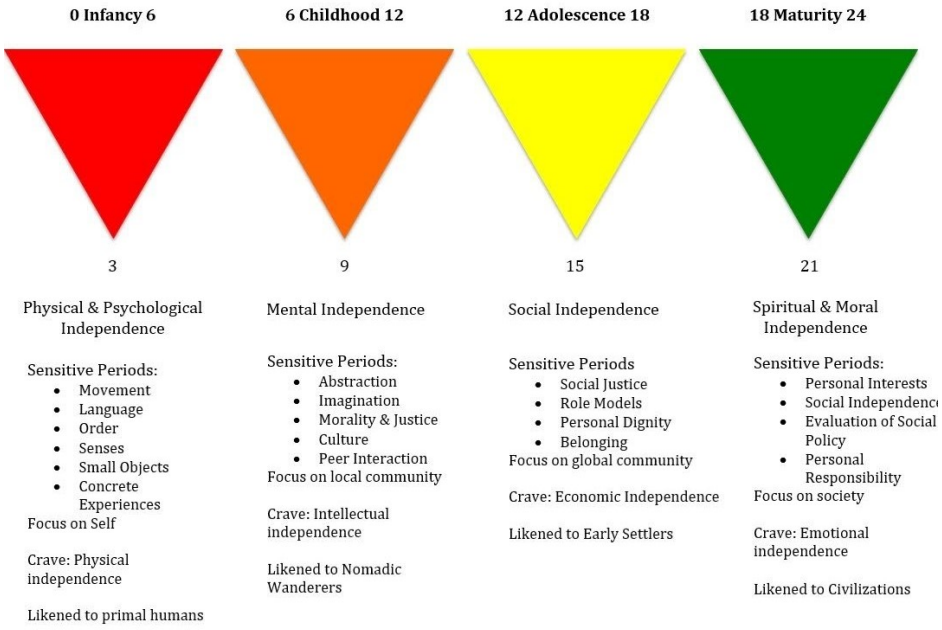
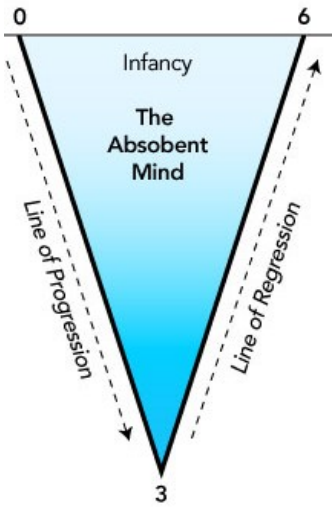


Figure 2: Planes of Development and Sensitive Periods (Nova Montessori)

Montessori's theory also includes the knowledge that children have an 'absorbent mind', a way to describe the phenomena of the child's mind from birth to six years absorbing knowledge without any implicit teaching (Montessori, 1967). For example, no-one teaches a child how to speak their parents' native tongue, yet the child generally comes to use the parts of grammar and communicates with all around them.



The line of progression highlights the absorption of the whole environment through sensitive periods, tendencies and needs.

The line of regression highlights the acquisition period.

Figure 3: The First Plane of Development Highlighting the Child's Absorbent Mind

Montessori, and her son Mario, believed human tendencies support the child with their development. These universal human traits lead a human in their development and are all interconnected. These tendencies are present from birth and last throughout a lifetime (Montessori, 1936/1983; Montessori, Mario, 1956). These tendencies consist of order, activity, imagination, self-development, orientation, abstraction, self-reflection, exploration, communication and concentration with repetition, precision and exactness. Mario (1956) argued that tendencies can be fostered or impeded, depending on the educational approach.

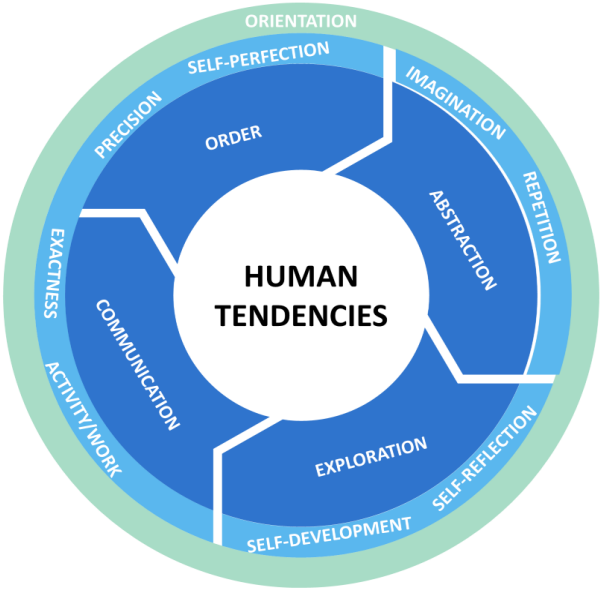


Figure 4: Human Tendencies
(Montessori, Mario, 1956)

1.5 Acknowledgement of Montessori's Theory of Child Development

Other well-known theories developed in the 1900s include Jean Piaget (1896-1980) who in 1936 published his theory of cognitive development, Erik Erickson (1902-1994) published his theory of human development in 1950 (better known as the zone of proximal development), and Lev Vygotsky (1896-1934) published his sociocultural theory in 1934 without leaving "a legacy of carefully experimental work" (Lillard, 2005, p. 342). Piaget and Erickson, in the 1930s, participated in Montessori teacher training (Standing, 1957) and their theories demonstrate Montessori's extensive influence on their work.

Between 1896 to 1906 Montessori researched and published in the fields of medicine, psychiatry, and anthropology, at the University of Rome. Additionally, from 1909 to her death in 1952 Montessori continuously published in the field of education. Montessori's research "is based on forty years beginning with the medical and psychological study of children [with additional needs]" (Montessori, 1946/1989, p. 4). Montessori had enrolled at the university as a philosophy student to study the education of children and the principles upon which it is based (Montessori, 1997). Montessori found that the education of young children in her day consisted "in mechanically filling their minds with the contents of a syllabus which is frequently drawn up by departments of education and imposed by law" (Montessori, 1915/1997, p. 20). Montessori knew from her research that this was not the best form of education for children. Through her study investigations she verified that "the importance of the hand as an instrument for the development of the conscious mind in childhood has not as yet been appreciated by educators" (Montessori, 1915/1997, p. 325). Montessori's explorations revealed the powers of the child's absorbent mind, and she stipulated that verbal instruction should be replaced by "material for development." (p. 319). Concluding that education should be based on assisting the natural development of the child and the laws of nature (Montessori,1949/ 2005).

Feez (2007) found that Montessori, incorporating the standards of her time, was very successful in writing scientific academic texts. Montessori herself states that the method is,

> "*…founded on the child himself. Our study has its origins in the child. The method has been achieved by following the child and his psychology. It is objective, not subjective as all the others are. It is always based on our ability to interpret our observations of those phenomena which originate in the child himself. A soundly*

objective method is based on observation, the observation of facts, which is why the Montessori Method is entirely different from all the other methods."
(Montessori, 1946/1989, p. 7-12)

Montessori utilised her predecessors work as a background to developing her theory on educating children through research. Theorists discern that "a system of education does not have to attain perfection in order to merit study, investigation, and experimental use" (Montessori, 1913/1965, p. xix). Montessori's theory was radical, clearly defined, well developed and she did not claim it was infallible. Her scientific attitude encouraged her to endorse "scrutiny of her scheme and the thorough testing of its results" (p. xix). The "test triumph" of Montessori education, she said, "will always be to obtain a spontaneous progress of a child" (Montessori, 1915/1997, p. 169). Montessori explored obstacles to studying the child and concluded "accumulated prejudices" about children was an obstacle. Additionally, Montessori's research established "that the social conditions produced by our civilisation create obstacles for the normal development of man" (Montessori, 1949/2005, p. 9).

With her background in medicine and children with additional needs, she felt she was the right person to continue this research. She had already established that some "energy, peculiar to children at that age, had become manifest and consequently existed" and was worth further exploration (Montessori, 1949/2005, p. 23). Montessori had success with the activities she introduced to children with additional needs. During this time, she was "trying to discover the reasons which could have reduced the healthy, happy pupils of the ordinary schools to such a low state that in the intelligence tests they were on a level with my own unfortunate pupils" (Montessori, 1915/1997, p. 30). The Minister of Education commissioned her to conduct, over a period of two years, a series of lectures for the teachers in Rome on the education of children with additional needs. By this time Montessori had made a "thorough study of the so-called remedial education" (Montessori, 1915/1997, p. 24). In 1906 Montessori was head hunted by the Director General of the Roman Association for Good Buildings to establish schools in its tenement houses, with people living in crowded conditions. The Roman Association had 400 such tenements in Rome (Shuck, 2004). She organised child-sized furniture, introduced various materials to children to stimulate their senses and trained the adults working with the children to allow them freedom to explore and not to lecture but to work along-side these children. More than 50 young children attended the first Children's House (Montessori, 1915/1997).

To build a solid foundation for her theory, Montessori spent two years carrying out educational work and a series of trials, investigations and research into the education provided in The Children's Houses (Montessori, 1915/1997). When residing in India for many years, Montessori's research was unhindered, giving her proposals a more scientific basis to enable the restructuring of society and peace, empowering her to build a solid and cohesive philosophy (Montessori, 1948, p. viii). Montessori used "scientific instruments and mental tests" which "transformed children who had been expelled from school as being uneducable into individuals who could enter into competition with normal children" (Montessori, 1915/1997, p. 34). She also carried out "research in educational anthropology in the primary schools" (p. 33). Montessori spent long hours, early morning to early evening "without interruption" in her research with the children (Montessori, 1915/1997, p. 24).

The Montessori theory of child development has unquestionably stood the test of time, consistently growing from one school in Italy in 1907 to over 20,000 worldwide in 2021. The extensive experiences throughout the world have unreservedly confirmed the principles Montessori's theory developed, although times are constantly changing. Montessori stated,

> "*The truly central point of this experience has been a discovery in the field of child psychology. Every further development has followed upon that first revelation given by the children …. such phenomena were not manifested at a single time and in a single environment but have been repeated in every part of the world where a system has been exactly followed. These extraordinary phenomena have revealed an unknown aspect of a child's soul. And this is the real pivot of all our work.*" (Montessori, 1915/1997, p. 323)

Montessori's theory stands above the rest because of the thorough research which validated the Montessori principles, including that the hand and mind are essential elements in children's educational development (Montessori, 1949/2005). Montessori theory has defined, developed and encouraged scrutiny and testing of its results (Montessori, 1913/1965, p. xix). Additionally, Montessori's theory established that obstacles have to be overcome to support a person's development (Montessori, 1949/2005, p. 9). Lillard (2005) queries why Montessori is not more well-known,

"…given how ahead of her time Dr Montessori was, it is interesting that she is close to ignored in psychology and education circles…is that she was a woman, working at a time when the only women who survived the passage of time in the behavioural sciences were the wives and daughters of famous men, such as Margaret Mead and Anna Freud." (p. 341)

Stevens' (2020) study on Montessori educators and the Early Years Learning Framework (EYLF) gives examples of how Montessori's theory highlights what the modern mainstream education requires. Therefore, this influenced the development of, for example, the EYLF, in addition to government funded researchers. Gonski, Arcus, Boston, Gould, Johnson, O'Brien & Roberts (2017), proposed for schools that it was necessary to "move from a year-based curriculum to a curriculum expressed as learning progressions independent of year or age" (Department of Education & Training, 2018, p. x). The Department of Education, Employment and Workplace Relations states that, "when educators establish respectful and caring relationships with children and families, they are able to work together to construct curriculum and learning experiences (DEEWR, 2009, p. 12). These both confirm Montessori's hypothesis that "fundamental importance of respect for the child" (Stevens, 2020, p. 6) is essential. Additionally, Montessori said that the child, "must have absolute freedom of choice…during the child's acquisition of some desired knowledge" (Montessori 1914/1965, p. 5). As mentioned above the Montessori curriculum implementation is fundamentally dependent on children learning in multi-aged classrooms.

1.6 The Role of the Prepared Adult

Over the years of refining the Montessori theory during her lifetime the one constant was that Montessori leaders required deep and transformative Montessori training to understand the child's role in society (Montessori, 2015). Each course, which usually lasted about six months, was composed of three main elements. These were Montessori's own lectures, a complete and systematic study of the didactic materials, and observations carried out in recognised Montessori Schools. Once participants received their diploma it "entitled the holder to open a school and call it a Montessori School" (Standing, 1957, p. 73). First and foremost was that all adults must hold true to Montessori's instruction, that the child holds the central status with the adult facilitating the child's development. During the specialised educator training courses which, Montessori herself delivered, this was outlined.

Montessori argued that adult's skills in observation, experience of child development and knowledge of the materials are indispensable (Montessori, 1942/1970).

The role of a prepared Montessori adult has a vastly different view than traditionally held. Adults work alongside each child rather than become figures of authority (Kramer, 1976; Montessori, 1936/1983). Montessori recognised that children need freedom to explore without interruption, she therefore trained participants to observe and guide, rather than to teach (Joosten, 1970). Montessori placed an emphasis on adults who need to allow for, and observe, the repetition of the work with the materials and free choice of activities. Montessori promoted the abolition of rewards and punishments for the children and, amongst other matters, saw no need for either the collective rote lessons or the high desk for the educator in the classroom (Montessori, 1936/1983).

Elements of Montessori's philosophy do not exist in material form, for example, morals and virtues. Conceptualisation of these constructs will provide a clear definition in the study (Figure 7). Throughout her publications and during her trainings, she referred to these as part of her philosophy and decision making for Montessori settings, including virtues and morals, "humility and patience" (Standing, 1957, p. 299) and "the rightness and wrongness of actions" (p. 114). In the context of this review, the researcher defines virtues and morals (Montessori, 1998, p. 36; 1942/1970, p. 192/272; Standing, 1957, p. 114/p. 298) as characteristics that are frequently mentioned by Montessori and include fairness (Montessori, 1942/1970, p. 285), tranquillity (Montessori, 1967, p. 151), courage (Montessori, 1942/1970, p. 255), patience (Montessori, Mario, 1976, p. 299; 1942/1970, p. 255; Montessori, 1942/1970, p. 278; Standing, 1957, p. 299), perseverance (Montessori, 1942/1970, p. 266), charity (altruism) (Montessori, Mario, 1976, p. 214), curiosity (Standing, 1957, p.177), creativity (Montessori, 2005, p. xiii; 1942/1970, p. 241), love of learning (Montessori, 1942/1970, p. 241/275), humility (Montessori, 1942/1970, p. 274; Standing, 1957, p. 299), self-discipline (Montessori 1967, p. 50), good manners and respect (Montessori, 1942/1970, p. 273). Other researchers echo this view, (Ebbeck & Waninagayake, 2003; Lillard, 2005; Rodd, 2013), stating leaders should possess particular skills, attributes, virtues and traits. In addition, Gandhi (1945/2012) stated that by utilising the 'light' of people's greatest humility the darkness of their egos can be dismissed. Improving schools is not a top-down, hierarchical process but rather a bottom-up process starting with the child (Babini, 2000). Montessori's views of leaders' development, through self-motivation, self-awareness and

self-regulation is embedded in her philosophy, practice and children as an "investment in human capital" (Bagby & Sulak, 2013, p. 6).

1.7 Montessori Classrooms in Australia

In 2004, 10,000 children accessed a Montessori education in Australia across 485 classrooms. Comparative 2017 classroom data from the Montessori Australia Foundation (MAF, 2018), the previous national Montessori body, is summarised in Table 1. However, these results highlight that compared to 2004 there was in fact a different distribution of age level classes. The birth to three-year aged settings increased by 33% and three to six-year aged classes grew by 5%, additionally, high school classes rose by 38%. Contrastingly, Montessori primary classes decreased by 67% (Table 1). Considering the growth of the child-care chain 'Montessori Academy' it may be possible to surmise that much of the birth to six-year age setting increases could be accounted for in their 26 locations.

Age group	**# Classrooms 2004**		**# Classrooms 2017**	
0-3	122	25%	182	37%
3-6	239	49%	252	52%
6-12	116	24%	38	8%
12-18	8	2%	13	3%
Total	**485**	**100%**	**485**	**100%**

Table 1: Number of Montessori Classrooms in Age Groups in Australia

Table 2 explains the distribution of Montessori settings in each Australian state and whether they are early childhood settings or schools with early childhood settings. The table also demonstrates that 16% of all Montessori settings belong to one of the childcare chains. In 2021 this figure would be closer to 25% (ACECQA, 2021).

State	**# Settings**		**Schools**		**ECC**		**Childcare chain % ECC totals**
ACT	4	2%	1	25%	3	1%	1 x Academy
NSW	112	39%	13	12%	99	41%	26 x Academy
WA/NT	32	12%	9	28%	23	9%	

QLD	53	18%	4	9%	49	21%		
SA	21	8%	3	14%	18	7%	8 x Precious Cargo	
VIC/TAS	58	21%	6	12%	52	21%	15 x Amiga	
Total	**280**	**100%**	**36**	**100%**	**244**	**100%**	**50**	**18%**

Table 2: Australian distribution of Montessori settings (MAF, 2018)

1.8 Regulation of Educational Settings and Current Quality Assurance

All educational settings in Australia are required to comply with government regulations, through ACECQA for early childhood settings, or the Department of Education, Skills and Employment (DESE) for school settings and must deliver a curriculum that meets accreditation standards. The Montessori Curriculum has not been accepted in many of the Australian states as an alternate curriculum. In an independent school, which some Montessori settings are classified as, the leader is also accountable to the board of governors, or council, who in turn comply with government legislation, including health, safety and finances and are governed by the Rules of Association (Independent Schools Association (ISA), 2020).

The DESE includes ACECQA and the DESE enables the Australian Curriculum, Assessment and Reporting Authority (ACARA). ACECQA has established the National Quality Framework (NQF), National Quality Standards (NQS) and both the Early Years Learning Framework (EYLF) and the Out of School Hours Framework (OSH). Additionally, the Australian Institute for Teaching and School Leadership (AITSL) outline essentials for teacher's accreditation in Australia. Australian State and Territory Regulatory Authorities are:

Australian Capital Territory (ACT): Children's Policy and Regulation Unit Education and Training Electorate. New South Wales (NSW): Early Childhood Education and Care Directorate, Department of Education and communities. Northern Territory (NT): Quality Education and Care NT, Department of Education. Queensland (QLD): Office for Early Childhood Education and Care, Department of Education, Training and Employment. South Australia (SA): Education and Early Childhood Services Registration and Standards Board of South Australia. Tasmania (TAS): Department of Education, Education and Care Unit. Victoria (VIC): Department of Education and Training. Western Australia (WA): Department of Local Government and Communities, Education & Care Regulatory Unit.

Figure 5: Map of Australian States and Territories and Education Compliance Structure

For settings that care for children prior to starting at school, ACECQA oversees an Australian system of quality assurance aiming to improve quality through the NQF (ACECQA, 2021). The NQF contains the NQS including addressing 'Leadership and Governance'. The focus of leaders is on continuous professional improvement, educational leadership and development of educators. The NQF recognises that leaders support the application of a sound program that addresses the educational outcomes of the EYLF (ACECQA, 2021). The NQF acknowledges leadership as a contributor to quality early childhood education, which in turn supports developmental outcomes for children.

In school education, the DESE uses the Education Act to register schools. Each state, or territory has a regulatory body in charge of this process, e.g., NSW Education Schools Association (NESA). For registration non-government schools are required to provide information including student welfare, corporate governance, educational programs, facilities, teaching standards and public reporting to their school community (NESA, 2020).

In addition, the Australian Government established accreditation requirements to strengthen the quality of the teaching workforce in both early childhood education and school settings (NESA, 2020). Currently early childhood teachers not in a school setting in the ACT, NT and QLD do not require registration. In contrast all early childhood educators in NSW, SA, Vic, Tas and WA are required to be accredited (ACECQA, 2021). The term early childhood education/childcare educator refers to, for example in WA, an educator planning, implementing, and working with children up to eight years of age (DESE WA,

2019). ACECQA term ‘early childhood education’ as birth to five years of age and through the Council of Australian Governments (COG) have developed the EYLF for children in this age group through to transitioning to school (ACECQA, 2021). All state and territory governments require educators to be registered and maintain annual registration with the individual educators participating in and reflecting on an average of 20 hours of professional development relevant to their practice. The requirements on what constitutes each state or territory’s professional development, and learning is outlined in Appendix 10. Educators are placed on a registration trajectory, starting at graduate, and heading to mandatory attainment of proficient level after the first two years of teaching.

Quality assurance within the Montessori field is developing to support children’s development. Montessori (1949/1992) described supporting children’s development as,

> “*…a natural process which develops spontaneously in the human being. It is not acquired by listening to words, but in virtue of experiences in which the child acts on his environment. The teacher’s task is not to talk, but to prepare and arrange a series of motives for cultural activity in a special environment made for the child*.” (Montessori, 1949/1992, p. 7)

A definition of quality in Montessori settings is the Developmental Environmental Rating Scale (DERS) (Figure 6) which began development in the USA in 2013 (Cossentino & Brown, 2017). Haines (2000) highlighted social, moral, cognitive and emotional outcomes for children that need to be achieved through quality Montessori settings. The National Scientific Council on the Developing Child (2007, p. 7) states that, “the development of increasingly complex skills and their underlying circuits builds on the circuits and skills that were formed earlier. Through this process, early experiences create a foundation for lifelong learning, behaviour, and both physical and mental health. A strong foundation in the early years increases the probability of positive outcomes and a weak foundation increases the odds of later difficulties”. Huppert and Johnson (2010, p. 264) define wellbeing as “the combination of feeling good and functioning well.” Montessori Education (UK) is the national standards body for Montessori education in Britain ensuring Montessori settings offer common quality standards to parents, educators, local licensing bodies and other interested professionals in the field of early childhood education. AMS outline core components for quality schools (AMS, 2021) to gain their accreditation. Montessori

Aotearoa New Zealand (MANZ) also define essential elements around quality implementation. Still in development at the time of writing is the AMI Global School Accreditation Standards Program (AMI USA, 2021).

Adults engage with the environment by preparing it for children's use. They engage with children by inviting them to interact directly with the materials that comprise the prepared environment. This activity takes place within a physical space designed explicitly to meet the needs of children during particular developmental periods (e.g., early childhood). Lillard (2018) demonstrated that the core precepts of developmental learning are backed by a large research base and made clear when practising Montessori education. Lillard examined nine principles in the Montessori prepared environment: movement, choice, executive function, interest, motivation, peer learning, meaningful contexts, adult interaction styles, and order. Whitaker (2013) maintains that if quality was about having a good program in place, then schools would succeed despite a lack of staff quality.

Montessori advocates for both understanding the importance of preparation of the leader and making all decisions with the child in mind. Therefore, the study addresses the original basis of Montessori philosophy before examining viability of the Montessori approach to leadership in contemporary settings and the impact on quality education. In addition, the review explores leaders' current implementation of the Montessori approach, influence of stakeholders, Montessori organisations and government legislation on leader's actions. Furthermore, the concepts of educational leadership theories were examined to compare Montessori's approach. The research design explains the mixed methods approach to gain perspectives from leaders and educators, for data collection (sampling, questionnaires) analysis through data reduction, locating key words and themes and developing a matrix to draw conclusions (Miles & Huberman, 1994). Furthermore, the study outlines how leadership influences student outcomes, staff and families.

Chapter 2: Current Literature Focus and Findings

"Education depends on a belief in the power of the child and on a certainty that the child has within himself the capacity to develop into a being that is far superior to us. They will not only be capable of a better way of living but will be the only person who can show us this." (Montessori, 1946/1989, p.101)

"The student must have a range of skills providing the job resilience required to be able to adapt and respond to fast-shifting education and workforce needs."
(Gonski, Arcus, Boston, Gould, Johnson, O'Brien, & Roberts, 2018, p. 36)

"Leaders behave with integrity underpinned by moral purpose". (AITSL, 2021)

"The aim of the educational leader is to support educators with technical practice, compliance and procedure; and lift their gaze to refocus their energy on understanding the limitless potential and upholding the rights and wellbeing of children."
(ACECQA, 2019, p.11)

Thousands of schools around the world strive to implement Montessori's vision of education over a century after the establishment of the first Montessori settings. The literature review for this study explores the empirical research on the Montessori approach to leadership in comparison with Montessori's original implementation of her philosophy and practice. Educational leadership theories are investigated and whether any align with Montessori philosophy. Additionally, the review explores what quality education is and how this is evident in Montessori settings.

2.1 Literature Searches

To answer the research question, a variety of databases were accessed. Search dates for peer-reviewed articles ranged predominantly from 2009 to 2021 to include current studies. Searches were additionally conducted for older research studies specifically with regards to Montessori. The key search terms used were 'Montessori AND leadership', 'Montessori education', 'quality in education', 'Montessori quality education', 'early childhood leadership', 'school leadership', 'virtues', 'values', 'altruism'. Education Resources information centre (ERIC via Ebsco), Informit online and Proquest were searched.

Furthermore, Google Scholar held several theses on Montessori leadership themes. In addition, Montessori's publications were examined for references to leadership expectations.

2.2 Empirical Research on Montessori Approach to Leadership

Few peer-reviewed articles specific to leading Montessori settings have been published and none in Australia. In 2015 the Journal of Montessori Research was established in the USA, through the American Montessori Society (AMS), publishing peer-reviewed, empirically researched articles on Montessori education (AMS, 2020). No leadership articles, however, have been published in this journal to date. Furthermore, Montessori's 25 published books rarely allude specifically to leadership highlighting a large gap in the literature with regards to leadership in Montessori settings.

One article related to leadership was retrieved from the American Montessori Society Research Library, which hold 34 theses and journal articles on Montessori topics (AMS Research Library, 2020). The one study was conducted by Duke and Salmonowicz (2010) in USA on a leader in their first year in a low-performing urban primary school. The findings demonstrated that new leaders need preparation and guidance to be successful. Researchers have published in the magazine 'Montessori Life' a literature review identifying 162 published articles that appeared in non-Montessori publications from 1996 to 2013 (Bagby, 2007; Bagby & Jones, 2010; Bagby, Wells, Edmondson, & Thompson, 2013) with Duke and Salmonowicz's (2010) again the only article specific to leadership. However, five theses on Montessori leadership were retrieved through the AMS website (AMS, 2020) and Google Scholar. Bennetts (2017), Kambrich (2018) and Mackenzie (1994) produced doctoral theses, while Castaneda (2016) and Castillo (2017) wrote masters theses. However, these studies were all carried out in USA with past and current American leaders of Montessori settings.

The five studies researched leadership in America with each researcher selecting a slightly different theme. Mackenzie (1994) examined instructional leadership practices whilst Kambrich (2018) investigated distributed leadership in schools. Bennetts (2017) and Castillo (2017) both reviewed Montessori's current implementation and how it was enacted in the past. Meanwhile, Castaneda (2016) foci was about improving educators and leader's relationships. Similarly, this particular research study outlines the re-examining of Montessori's original approach to leadership to establish quality in Montessori settings.

However, this study was conducted in Australian Montessori settings and additionally provides an understanding of how the Montessori approach can stand alone as a leadership theory.

The researchers utilised interviews as the main data collection method. Moreover, three of the researchers interviewed current leaders, however, Castillo (2016) questioned past Montessori leaders and Mackenzie (1994) only interviewed educators. Very experienced Montessori trained American leaders were the samples for Bennetts (2017) and Castillo (2016). Further to this, both Kambrich (2018) and Castaneda (2016) conducted their studies with leaders who had some understanding of Montessori philosophy and practice. In contrast this specific study has approached any Australian setting with 'Montessori' in its name, regardless of the leaders Montessori credentials or application of Montessori principles and practice. Data was sought from both the leaders and educators in these settings.

The previous researchers explored leadership theories and how they might align with a Montessori approach. Bennetts (2017) argued that a Montessori leadership perspective incorporated many of the ideas of various leadership theories, such as transformational, servant, distributed, authentic, ethical, spiritual and sustainable. Castillo (2016) concentrated on how servant, collaborative and transformational leadership models were implemented by experienced Montessori leaders. Similarly investigating distributed leadership in three Montessori schools was the focus of Kambrich (2018) study. Mackenzie (1994) based her thesis on instructional leadership, which was in its early development in USA from the 1970s to 1990s (Hallinger, 2005). This study has found a disparity with the other researchers as although there are some educational leadership theories that may align somewhat with Montessori principles, there is only one theory that aligns completely with Montessori's vision and that is Montessori's own theory of child development, which incorporates the prepared adult.

Underlying themes evolve through integrating outcomes of these five studies as they concluded that a good knowledge base on Montessori philosophy and practice are required by leaders to strengthen Montessori settings. They highlighted the importance of values, respect and morals in Montessori adults as advocated by Montessori. These researchers found that relationships are stronger and more trustful when respectful communication and transparency from leaders is purposefully implemented. Moreover, the child is the emphasis

of Montessori settings, as the central and most prominent component for a leader's consideration (Bennetts, 2017; Castaneda, 2016; Castillo, 2016; Kambrich, 2018; Mackenzie, 1994). This study argues leaders of Montessori settings need more than a good knowledge of Montessori, if they intend to implement Montessori's principles and practice authentically, leaders must, as Montessori stipulated, be Montessori trained. Subsequently, those who intend to embark on training Montessori leaders, or educators, must therefore have Montessori training themselves to main a standard of quality.

Considering Montessori's original training expectations, the Montessori educator is moreover a leader, of their class and students, and so can be seen as an exemplar for leadership of the whole setting. Empirical research underscores that leaders of Montessori settings need understanding and training in Montessori philosophy and practice accentuating Montessori values, such as respect, community, and peace (Marshall, 2017). If well-trained educators, employed by a setting leader, adhere to all the Montessori principles then children receive a Montessori education that benefits them socially and cognitively. Montessori education has conducted some peer-reviewed evaluations but nearly all have focused on classroom practice, not leadership and all have occurred in the USA (Marshall, 2017).

2.3 Montessori's Position on Implementation of Her Approach

Montessori intended her educational approach to be as authentic to her original vision as possible. Therefore, the leader of a Montessori setting needed a deep understanding of Montessori philosophy. Adults guide the children to work, following the child's interests through serving the child (Standing, 1957). Validating Montessori's approach more recent researchers (Duignan, 2012; Standing, 1957; Woods, Husbands & Brown 2013) have stated that leaders who are altruistic, working relentlessly solely for making a setting a better place, are the personification of quality and inspiring leadership. Duigan (2012) and Woods, Husbands and Brown (2013) found that the embodiment of quality and inspiring leaders is an individual who works tirelessly for the institution, the altruistic person who uses their energy to try and make the setting great without motivation of acknowledgement. Similarly, these findings align with Montessori's views and are consistent with her approach (Montessori, 1936/1983). Part of any leader's role is to deal with dilemmas. Cuban (1992) discussed the moral choices people face to concede part of one's beliefs when faced with a particularly challenging dilemma which usually result in "good enough compromises" (p.7).

One of the greatest dilemma's facing Montessori leaders is the constant striving for no compromise when implementing Montessori principles and practices (Lillard, 2005).

Montessori saw adults as leaders, as well as children as future leaders. Adults are the children's role models, demonstrating morals and respect, showing humility, whilst being fair and trustworthy (Standing, 1957). Montessori adults like to increase their Montessori knowledge and their support for Montessori education, through building trust (Murray, 2008; Wright 2016; Wylie, 1998). Robinson's (2007) research of 26 studies published between 1978 and 2006, provided evidence about links between leadership and student outcomes. What a leader thinks, says and how they act is essential to creating a sense of trust with stakeholders, especially educators (Robinson, 2007). Recognising that children are the future leaders, Montessori highlighted that implementation of her approach and how adults engage with individuals from birth has a profound lifelong effect (Kramer, 1976). Montessori stated that in babies "there exists in this inert being a global power, a 'human creative essence,' which drives him to form a man of his time" (Montessori, 1936/1983, p. 58). Montessori children are brought up in an interrelated way of understanding that we are all part of one world. The children develop abilities to question ideologies, judging the positive and negative features themselves, not following blindly (Montessori, Mario, 1956). Children have leadership opportunities including through supporting peers and role modelling (Montessori, 1913/1965).

Educators as leaders, model behaviours, demonstrate morals and values, build trusting and respectful relationships with children and colleagues (Montessori, 1967/1992). Montessori's vision of an educator was a person having "a moral alertness" (p. 151), adjusting themselves "to the child's needs" (Montessori, 1936/1983, p. 106). The Montessori educator squats down to the child's level, engages with them in listening, responding, and demonstrating, allows children space and time to fully understand concepts (Lillard, 2005). The educators' role involves specialised training to become the facilitators working alongside children (Kramer, 1976; Montessori, 1913/1965). The adult's *individual intent* (a phrase coined during this thesis statement to clarify the emphasis for Montessori leaders) and motivation play a key role in building trust, role modelling their moral character and placing the children front and centre. Whitaker (2013) explains how great leaders have "clarity about who they are, what they do…take responsibility for their own performance…treat every person with respect…are loyal to their students, to their teachers, and to the school" (p. 142).

Considering the Indigenous perspective is to be a custodian rather than an owner of lands, communities and knowledge then "demands the relinquishing of artificial power and control, immersion in the astounding patterns of creation that only emerge through the free movement of all agents and elements within a system" (Yunkaporta, 2019, p. 94). The researcher personally has met many good leaders who are not Montessori trained but have that *individual intent.*

2.4 Montessori Approach to Quality

Montessori specified that quality equates to starting with early education which supports the child's senses when exploring a prepared environment, with the child making their own choices of specific activities, ultimately leading to concentration (Colgan, 2016). As previously mentioned, Montessori specifies some *keystone* elements (Table 3) that support quality in Montessori settings which include trained educators and leaders (Joosten, 1970; Lillard, 2005; Montessori, 1913/1965).

2.4.1 Definition of Quality

A quality education is fourth on the United Nations '17 Sustainable Development Goals'. They explain that to escape poverty, education is used to enable upward socioeconomic mobility through life-long learning opportunities within nurturing environments. Echoing Montessori, they state that quality education should be inclusive and equitable, cultivate a love of learning, ability to participate fully in society, considers the whole student and fosters children's abilities and interests. A quality educator cares and encourages the child to reach their full potential (United Nations, 2021).

Montessori as an international educational provider has standards of quality that span the globe. Many individuals and organisations have attempted to define a quality Montessori education. Beresford-Jones (2020) found that a quality education can be defined as being guided by Montessori qualified educators and leaders who can direct policy development and are provided with resources so the children can learn in a prepared environment which is physically and emotionally safe. Her research highlighted the need for children to be challenged academically through an individual curriculum, whilst actively engaged in learning to fulfil their potential through a love of learning leading to participation in the local and global environments. Quality education might therefore hinge on ensuring access to quality Montessori educators who can access professional development that is relevant to the

Montessori contexts and be courageous enough to ensure the principles and practices are enacted. In addition to being provided with the use of quality learning materials and establishing a safe and supportive quality prepared learning environments. Montessori was clear about what a quality Montessori setting would need (Table 3).

Table 3 summarises the importance Montessori placed on the preparation required for quality leaders, educators, and environments. These include establishing uninterrupted work periods, mixed age groups in classes and complete set of materials. In addition, using observation to support following interests of each child and individual learning. All these *keystone* elements need to be underpinned by Montessori's theories on child's absorbent mind, sensitive periods and considering the human tendencies and the planes of development.

Quality Elements	**Montessori states…**
Prepared Adults: Leaders & Educators	Participants who completed a Montessori training course "entitled the holder to open a school… Two years later, if the student had worked in a Montessori class and proved satisfactory as a Montessori educator, their diploma was endorsed to that effect" (Standing, 1957, p. 73). Montessorians need to have virtues of "humility and patience" (Standing, 1957, p. 299) and morals, "the rightness and wrongness of actions" (p. 114). The adult has undergone rigorous training with personal transformation, have undergone Montessori training. Adults who know the way adults should interact with children and others with love & respect, using inviting calm manner, voice, show humility, great respect for children and others, show warmth, understanding and authority. Observes often and carefully and acts as a role model. Love of learning. Thriving on new discoveries. Use mistakes as learning time Encourages/uses initiative, independence, self-reliance, self-control, creativity Educator is the link between the child and environment they have prepared and appears aware of entire class, presents material as very special, wonderful.
Observations	Trained adults who observe and guide, rather than teach
Individual learning	Giving a sense of control to child, caters for child's rhythm, pace, challenges. Developing a love of learning through friendliness with error (Montessori, 1942/1970, p. 246). Freely exercise will, judgment, enthusiastic, imaginative, creative, showing joy, satisfaction, exhilaration in work, works independently, calmly, energetically for long periods, shows others respect, waits their turn.
Follow child's interest	Inspires intrinsic rewards, motivation, imagination. interest in subject matter Develops a love of learning
Prepared environment	Developing health of body, spirit and intelligence, Provided in a meaningful 'real' context for learning "*which satisfies his needs, and to remove obstacles which may bar his way to perfection*" (Montessori, 1942/1970, p. 248). [Obstacles is giving to much help to child, being disrespectful or interrupting a child's focus through word or actions (2013).] Light furniture children can carry; objects in reach; child sized objects, usable by children; includes some fragile, breakable objects

	Class space/contents are beautiful, inviting, systematically, logically organized. Practical Life work has useful aims for real, practical purposes & access to nature.
Mixed age groups	*"if we are to educate the child, we ought to be careful to correspond to what we might call the psychological needs of development belonging to the various ages" (Montessori, 1989,* p. 30) *"mix the ages together… from three to six. This fact makes such a difference, that if one were to put all the children of the same age together, there would be no success, and it would be impossible to apply our method…. One of the secrets is the open doors… gives a freedom of circulation, between different grades, this circulation is of utmost importance for the development of culture. One of the great advantages of our method is this living together of the three ages and it is one of the best ways for individual development" (p. 65). "It is evident that here it is not the teacher who keeps the order, but that it is a psychological organization of the children which brings theme to these results" (p.66).* Multi-aged classes enhance socialisation/wellbeing/learning. Across age learning occurs without competition, supports developing leadership, respectful grace & courtesy encouraging humility & morality across age learning occurs without competition, supports developing leadership/respect.
Uninterrupted work periods	Key to build focus, independence, concentration through work & spontaneity Supports false fatigue.
Partnerships with families	Montessori supported families to know why a change in attitude and learning was required. She advocated for a child environment, work rather than play, when the child knows better, working on their own and learning from their surroundings through movement (Montessori, 1931/2017) *"to them falls the task of educating their children, of correcting defects"(Mario, 1956 p.107). "the new education prepares an adaptive environment for the child and recognises in general that they love work and order for themselves… respect all the reasonable forms of activity in which the child engages" (p.117). "we must support as much as possible the child's desire for activity; not wait on them, but educate them to be independent" (p.123)* *"we must be most watchful in our relationships with children because they are quite sensitive…to external influences" (1956, p.126). "have you ever given your children the chance even for one day of doing what they like without interference?"(1989, p. 4)* *"when a child sees a pretty flower and wants to now its name and colour, the wise parent says that the flower is a rose and the colour is red. She has given help when it is asked and the child is satisfied" (1989, p.7)* *"I therefore encouraged the teachers to obtain through talks with the children's mothers information of a social character, such as, the education of the parents, their habits, their earnings, expenses, and so forth, so that a family portrait might be drawn up…But I believe that such a plan is only practical when the teacher lives near the families of her students" (Montessori, 1912, p. 47). "the teacher could also give her own suggestions on the education of individual children" (1912, p. 48)* An effective partnership with parents to support the child.
Materials	*"The fundamental fact in the preparation of the environment is to have only one set of each type of material… for the discipline of the school"(Montessori, 1989, p. 64)*

	Specific developmentally designed materials which include refining movement, senses, language & aid each child's learning progression through hands on work leading to developing focus and enhancing personality Principle of isolation of a difficulty to practice. Provides a child with opportunities of movement, supports freedom & limits
Supported by principles *Absorbent Mind* *Sensitive Periods* *Human Tendencies* *Planes of Development*	Child's mind from birth to 6 years absorbing knowledge without any implicit teaching (Kramer, 1967). Universal sensitive times in a child's life reveal child's intense interest in an area, e.g., language development, movement, writing, order, reading, small objects, grace and courtesy and refinement of the senses (Standing, 1957). Universal human traits lead human development through the use of their inherent powers (Montessori, 1936; Mario, 1956). These tendencies consist of order, activity, imagination, self-development, orientation, abstraction, self-reflection, exploration, communication and concentration with repetition, precision and exactness. Montessori's concept of developmental psychology was built on a complete framework of planes of development, a series of new starts (1936). Human development is not linear but occurs in cycles and develops the child's mind from an unconscious thinker to a conscious contributor to society. These periods occur from 0 to 6, 6 to 12, 12 to 18, 18 to 24 years

Table 3: Montessori's Areas of Quality (Beresford-Jones, 2020)

Montessori developmental optimal outcomes were collated by AMI (2017-2018) demonstrating Montessori integrated her philosophy and practice in the areas of social, moral, emotional, and cognitive quality areas (Table 4).

Quality Areas	Age	Learning Outcomes	Practice
Social Development	**0-6**	"*child should absorb with our help…so when they have reached adulthood…then no matter what ideology would come thereafter, they would have a basis of judging its positive/negative facets"*	Implementation of Montessori Benchmarks in prepared environment, training of leaders/educators and family implementation of Montessori principles.
Social Development	**0-3**	Individuation/personality formation, 'birth'of the ego/self from moment of birth. Trust in people/ environment. Independence & social adaptation	Developed by social relationships & experiences/inner drives urging relating to others/ Ability to walk, talk, eat, etc
Social Development	**3-6**	Self-discipline. Increase independence. Knowledge of appropriate/specific manners. Patience/ability to share. Respect for others. Willingness to abide by rules to create social order. Activity – movement	Mixed ages. Concentration. Uninterrupted work periods. No rewards/punishments. Choose own real, purposeful activities, solve problems themselves. Grace/courtesy exercises. Repetition
Social Development	**6-12**	Knowledge develops a love of humanity. Love stirs up emotional, what you love you do not harm.	Social development is closely intertwined with the other dimensions of personality development.

		Understanding actions. Service. Child becomes a moral person/ develops love of humanity	Choosing activities. Mixed ages/interactions. Sensorial impressions from materials. Child.
Social Development	**12-18**	"school of experience in elements of social life" Domestic relationships. Make contributions. Understand interdependency. Assume work roles. Understand work is commerce product. Balance individual initiatives/to community goals. Learn meaning of rules/living harmoniously.	Types of occupations that reflect life of society. Engagement leads to sense of ownership/ stewardship. "economic independence is general principle of social education for 12-18". work roles function for the greater good. Giving a sense of pride and accomplishment.
Moral Development	**0-3**	Nourish human spirit by warm/protective family atmosphere. Internalisation ethical attitude/empathy	Adult acquires moral alertness
Moral Development	**3-6**	Perseverance, good work habits, mental balance, ability to choose, self-discipline, independence, control of possessive instinct.	Care/respect for environment and for others. Willingness to abide by rules to create social order.
Moral Development	**6-12**	Developing awareness/concerns for all. Develops philosophical nature. Intimate connection of knowledge to justice.	What am I? …What is my task? Why do we struggle and fight? Where will it all end?" "at this age concept of justice is born"
Moral Development	**12-18**	Respect for others/their roles. Grappling with social/moral problems. Individual initiative.	Joy in group progress. Service. Ethical & conscience.
Cognitive Development	**0-3**	Creation of the mind. Acquisition of spoken language. Development of memory/thinking. Formation of consciousness, ego, self-awareness	Absorbent mind. Sensitive periods. "Our aim … is to touch their imagination as to enthuse them to their inmost core."
Cognitive Development	**3-6**	Refine sense perception. Logical/linear thinking. Sustained interest. Growth of intellect. Internalisation of symbols in language/maths.	"bringing order into chaos". Materials. Classify impressions. New skills/ competencies. Increase knowledge/ vocab. Concrete operations lang/ maths
Cognitive Development	**6-12**	Support eagerness of child to learn. Child receives basic elements. Knowledge given to inspire.	all culture is introduced. "we seek to sow life in the child rather than theories"
Cognitive development	**12-18**	Personal expression integrated across curriculum. Philosophical questions of nature/cosmos. connect history of life/earth/civilisations - interdisciplinary.	Cognitive extends to all parts of human functioning.
Emotional Development	**0-3**	Establish emotional ties with adult carer. Sense of security/safety in family. Personality integration.	Standard Montessori for preparation of educator/ environment. Feelings of gratitude, trust, respect, adequacy, confidence, autonomy, independence
Emotional Development	**3-6**	Serenity, calm, satisfaction, emotional equilibrium. Happiness, joy. Concern for life. Emotional wellness. Warm, expressive, optimistic personality	Standard Montessori for preparation of the environment/educator. Pleasure in purposeful activity. Love for people/things.
Emotional development	**6-12**	Invested in future. Child with prepared adult contributes to a balanced/fully adapted individual. Desirable emotions from purposeful work	"equipped in their whole being for the adventure of life". "the child is satisfied, having found a centre, a place in the totality of the universe"

Emotional development	**12-18**	Sense of mission. Connection of personal vocation. Feeling of self-sufficiency, confidence, taking care of self/others. Love of work. Hope for future. Free to collaborate/belong/solve problems	Noble work both manual/intellectual, work that is productive/independent. Strong character/quick wits/courage. "opening of ways of expression which include music, speech, drama and art"

Table 4: Montessori Optimal Development Outcomes (AMI Journal, 2017-2018).

ME (UK) is the national standards body for Montessori education in Britain. A trained team of certified Assessors who hold Montessori Diplomas from all the major recognised Montessori Training Providers certify the schools and centres who apply for accreditation. ME ensure that Montessori is able to offer a common standard to parents, educators, local licensing bodies and other interested professionals in the field of early childhood education (Table 5).

Area of Focus	Montessori Education (UK) standards
Montessori-driven management structures	Management structures to implement Montessori principles/ support staff in professional development (PD)
Personnel and qualifications	The school is led by a Montessori qualified teacher. Non-Montessori qualified staff are undertaking Montessori PD; class teachers are qualified at or working towards Montessori qualifications relevant to the age group they are working with
The work cycle	Working time lasts for an uninterrupted period of at least two and a half hours, preferably 3. Children mostly work individually but come together when they wish to, in small or larger groups.
Vertical grouping	Classes are a mixed age group.
Prepared environment **Materials** **Activities/materials**	A Montessori 'prepared environment', suitable for ages / stages of development of children within it, set up/ maintained so they can actively engage with materials/ activities designed from a developmental point of view/ which leads them to successive levels of discovery about the world. Materials are displayed in an orderly way, well maintained, complete. Children have continual/free access to a full range of Montessori materials, other materials/ activities based on Montessori philosophy appropriate for ages/stages of learning.
Classroom management **Care** **Safeguarding**	Classes run in such a way they promote children's freedom to make spontaneous choices; be independent; complete cycles of work; develop sense of responsibility in group; use materials properly & work on their own/with others as they like. Care routines embody Montessori. Children are safe, secure, safeguarded.
Policies and procedures	Effective policies and procedures relating to implementing the Montessori approach and monitoring its effectiveness are in place, and available to staff and parents
Observation, planning and assessment.	School undertakes written observations of the children which inform their assessment, review, planning of all Montessori aspects of provision.
Partnership with parents	An effective partnership with parents (invitations; Parent handbook; notices; records of letters; appointments; photographs; class planning; newsletter)

Table 5: Montessori Education (UK) Standards (ME UK, 2021)

ME UK emphasise that Montessori driven structures for leaders need to be in situ, with the setting being led by a Montessori qualified teacher. ME UK focus on the work cycle, vertical grouping, the prepared environment and materials, classroom management, observation, planning and assessment, in addition to partnerships with parents and development of Montessori driven policies and procedures (ME UK, 2021).

Montessori Aotearoa New Zealand (MANZ) established in 2011 and revised in 2020 (Table 6) highlights the Montessori Journey to Excellence using the Essential Elements and Quality Indicators for Montessori education.

Quality Indicators	Essential elements (EE)
Montessori Leadership, Vision and Advocacy	Service/school maintains membership with MANZ/ongoing commitment to EE of Montessori Journey to Excellence. Policies/budgets reflect a continuing commitment to Montessori qualifications/PD/ development (PLD) for kaiako (educators)/boards/ trusts/ host schools. Leadership is responsible for ensuring experienced Montessori guides implement curriculum in age group they are with. Settings clear processes to recruit, train/retain high-quality Montessorians. Montessori settings has a clear, lived vision to deliver Montessori philosophy and education. Leaders ensure info about Montessori program regularly provided to their community.
Montessori Learning Environment	Montessori learning environments structured according to Montessori principles, offer multiple learning opportunities indoors/out. Montessori environment fosters independence/ engagement, appropriate to each Plane of Development. Environment enables freedom of movement, and choice of activity, with long uninterrupted periods of time in which to engage with learning. Environment is responsive to diverse learners. Montessori program is committed to Te Tiriti o Waitangi, celebrates culture of each whanau (family), and enables ākonga (students) to develop a deep sense of self. Montessori pedagogy is integrated with Te Whāriki o Aotearoa Early childhood curriculum: Te Whāriki & NZ Curriculum (NZC).
Montessori Prepared Kaiako	Appropriate NZ early childhood/primary/secondary qualifications, kaiako have specialist Montessori qualifications, appropriate to their age group. Part of reflective practice, kaiako engage in regular Montessori professional learning, inquiry/evaluation. While still meeting regulatory requirements, number of adults is kept to a minimum, which supports self-reliance and peer teaching/learning. Montessori kaiako deliberately model behaviours/attitudes that will support ākonga to adapt constructively to their culture and its expectations. Montessori kaiako use their knowledge of human development/ whole ākonga to engage in intentional cycle of assessment, planning, evaluation underpinned by thoughtful observations. Montessori kaiako are skilled in following learners – responding to their changing interests, discoveries/individual needs.
Montessori Community	Ākonga (student) and adults experience a respectful, safe, caring community. A productive, purposeful partnership, focused on the needs of ākonga is evident between parents/whanau/Montessori setting, in all formal/informal communications. Kaiako consult with wider educational community as needed, to gain clarity around priorities for program development and learning of

	ākonga. Montessori community nurtures kotahitanga (collective, togetherness), supports ethos of aroha (compassion, empathy), role models whakamana (respect), all in context of bicultural (indeed, multicultural) understanding.

Table 6: MANZ Journey to Excellence using the Essential Elements and Quality Indicators

MANZ places importance on Montessori Leadership, vision and advocacy, the Montessori community, the prepared adult and learning environment. The Journey to Excellence recognises the influence of leadership in sustaining quality Montessori education with a strong emphasis on the bicultural foundations of the country, recognising the growing cultural diversity of learners (MANZ, 2021).

While many components are integral to quality Montessori implementation, AMS state that fully integrating all of their core components is a sign of a quality Montessori school. The five core components are having Montessori trained teachers, multi-aged classroom, using the Montessori materials, child-directed work and uninterrupted work periods (AMS, 2021).

Standard	Area	Criteria
Standard 1 Philosophy, M ission, and Vision	Mission/ vision are student-centered/ guided by Montessori philosophy. Establishes/ communicates shared philosophy to inform facets of culture, operational/ instructional decisions.	Creates mission/vision statements/stakeholder input. Policy non-discrimination. Develop/update demographic profile of school/ students/ faculty/staff/community. Communicates mission/ vision. Review mission/ vision annually to align with educational goals, philosophy. Created/ fostered culture, inclusive community
Standard 2 Governance Leadership, Continuous Improve - Strategic Plan	Promotes student learning/school effectiveness - strong governance/ leadership aligned with mission/ vision. Establish/implement/monito r/ refine a strategic plan process for continuous improvement.	School/sustainability of governing body/school leadership. Delegates responsibility to leader to implement strategic plan/all operations. Provides support/evaluation of leader. Provides organizational chart of roles/authority. Knowledgeable of/complies applicable laws, regulations. Promotes culture, collaboration, consistency. Seeks/ respond to community concerns. Analyse learner outcome/school effectiveness.
Standard 3 Teaching/ Learning (Educational Nature)	Quality Montessori schools implement a Montessori curriculum based on clear and measurable learner outcomes. Students actively engage in the learning process, exhibit joy in learning, and apply their	Appropriate furnishings/clean/orderly. Student accessible storage area, water source, variety of activities. Instructional Materials - environments equipped with fundamental Montessori materials. Aesthetically displayed, accessible, purposefully sequenced. Inspect/ evaluate regularly. Montessori learning relationships - multi-age groupings. Leaders/educators ensure students with disabilities are educated with non-disabled peers to appropriate extent.

	knowledge and skills to real-world situations.	
Standard 4 Doc & Use Results (Learner Outcomes)	Quality Montessori school enacts an ongoing assessment system that monitors and documents learner outcomes and uses these results to improve educational effectiveness.	Determine benchmarks across all program levels, indicate progress toward following learner outcomes. Create/publish/ implement data-driven system. Analyse recorded data, action research, class observations. Use data analysis to make curricular/ instructional decisions. Evaluate school-wide effectiveness. Continuous improvement teaching/learning
Standard 5 Personnel	Policies/practices in place to ensure employees are well qualified, assigned professional responsibilities based on their qualifications (i.e., professional preparation, ability). Employees provided support through ongoing evaluation, PD, sufficient in number to support mission/ vision. Follow fair, ethical/ non-discriminate employment.	Employ admin leader with professional qualifications, lead teachers (quals for teaching level). Employment agreements for all personnel. School-wide salary scale. Job descriptions for all positions. Employee handbook. Annual staff training on policies/procedures. Plans for completion of minimum of 10 hours PD annually. All non-credential employees receive orientation to Montessori philosophy/practice. Implements annual evaluation system, sets goals for prof growth. Provides weekly dedicated planning time for lead teachers. Maintains ratios of students/adults as appropriate for the age level
Standard 6 Facility Resources	Quality Montessori school provides facilities, sites, equipment that meet health, safety standards conducive to a safe learning environment in alignment with school mission	Certifies facilities meet all applicable laws, standards, regulations. Provide/maintain site, facilities, services, equipment, and furnishings Policies access to/use of facilities by out of school hours groups Adequate facilities for developmental gross motor activity. Accessible, neat storage for teacher materials.
Standard 7 Finances/ stability	Quality Montessori school maintains strong and prudent financial management practices and adequate fiscal resources to support its mission and vision.	Complies with all regulations. Monitors all finances/ transactions by engaging external accounting firm. Develop annual operating budget. Utilizes system accurately track/document revenue/expenses. Reports on current year financial performance. Clear financial responsibilities of parents. Maintains policy for managing/disbursing/overseeing funds. Engages in financial planning for long-term sustainability of school.
Standard 8 Records, Resources, and Support Systems	Quality Montessori school has appropriate documentation, training, and human resources to meet applicable federal, state, and local regulations, assure health and safety of faculty/staff, students, and enable all students to achieve expectations for student learning.	Develop/implement/publish comprehensive health/safety plan. Annually review/reports. Ensures staff are trained in safety regulations. Maintains records of scheduled, completed emergency drills. Document/report student incident/accidents at school. Maintain insurance. Create/publish policies/procedures for field trips/ off-site event. Maintain/distribute students' emergency, health, academic records. Ensures all teachers, admin, staff receive info about a student's disability-related needs. Provide plan retention of student records if closing school. Maintains/provides families of students with disabilities, a list of professional support services/ agencies in the community. Assists families to connect with agencies, programs, resources. Maintains employee records. Policy maintaining/backing up student, other records. Ensures accessibility to all legal documents.

Standard 9 Stakeholder Communication and Relationships	Quality Montessori school fosters effective communications and relationships with and among its stakeholders.	Formal channels outlined in policy/procedures document to listen/communicate with stakeholders. Publishes parent handbook articulates policies/procedures relevant for students and families. Solicits knowledge/skills to enhance the work of the school. Communicates, through multiple channels, expectations for student learning, learner outcomes, school effectiveness, and goals for improvement to all stakeholders. Provides tools enabling outreach/ engagement to all families. Conducts transparent annual assessment school effectiveness. Develops written observation policy/encourage visits. Practice community engagement, provide info re programs. Provide family support/enrichment opportunities.

Table 7: AMS Standards for Setting Accreditation

AMS outline nine standards that they expect Montessori settings to adhere to for accreditation. The nine standards are philosophy, mission and vision; governance leadership with continuous improvement; teaching and learning; learner outcomes; personnel; facility resources; finances and stability, records, resources, and support systems; and stakeholder communication and relationship.

The AMI Global School Accreditation Standards Program (in development 2021) outlines for Montessori settings how to acquire accreditation (Table 8).

Core elements	AMI Global Accreditation Standards
Program design	Class sizes –under 18 months under 14 children, other classes no more than 35 children each class Class composition – balanced mixed age groups. Nido: 2 months to 1 year / Toddler: 1-2 ½ /3 years / Casa: 3-6+ / Primary/Elementary: 6-9 & 9-12 years Adolescent: 12-15 & 15-18 years Schedule of: Toddler: 4 consecutive days per week / Casa: Min 4 ½ days per week Primary: Min 4 ½ days per week / Adolescent: boarding Process of progress, assessment, reporting is compatible with Montessori principles. Observation evident as foundational tool throughout setting, used for reflection/ program plan to guide learning. Environment has appropriate multi-age groupings aligned with planes of development. Uninterrupted daily work cycle, free from adult-designed scheduling (specialist use align with this principle). Independence, self-direction, active learning and discovery are encouraged
Prepared environment/ in and outdoors	A prepared environment with appropriate size furnishings & materials Access to outdoors with a farm for adolescent students Environments are organised according to Montessori principles and offer multiple learning opportunities in indoor/outdoor learning spaces. All should exemplify simplicity of design, beauty, order. Must be complete, clean, safe & in good repair.

Children's work	Access to full range of materials Children demonstrate concentration and engagement. Includes 'Going out' for 6-12 aged children. At all levels children work together to establish peaceful cultures of respect, sharing, empathy, social harmony.
Personnel	Guided by AMI trained educator with non-teaching assistant – some children with developmental issues may require a personal assistant too. Adolescent community requires a balance of committed AMI adults Leader is employed who has knowledge of Montessori principles and curriculum Montessori educators serve as role models, facilitators for child's natural development. Educator's lessons follow Montessori albums (AMI training) for age level. Lessons are appropriate developmentally, dynamic, purposeful, engaging, lay foundations for further learning.
Governance/ Administration	Board/Leader ensures Montessori pedagogy drives all things. A statement of school's mission, vision, strategic goals, establishes policies, plans consistent with this statement. Adheres to all local laws and regulations. Strive to raise awareness of sustainable practices. Provide staff PD. Admissions process informs parents about nature of Montessori education, partnerships involved/ commitment required in enrolling in school/centre
Intangible but essential characteristics	Child start/complete work with cajoling; solve their problems independent of adult; concentrate; chose purposeful work. Role of adult includes preparing the environment, building trust, presentations, removing obstacles, observations, respectful.

Table 8: AMI Global School Accreditation Standards

AMI also state that all aspects of the school are guided by Montessori principles and highlight the standard for quality in Montessori settings.

2.4.2 Tables Summary of Montessori Quality | 1 table to rule them all

Tables three to eight have outlined quality as described by Montessori and Montessori organisations around the world as well as expected developmental outcomes. Montessori practise and principles intersect and overlap, e.g., a prepared educator sets up the prepared environment including the materials, carries out observations, understands and applies all the Montessori principles and practices and develops relationships with families for the benefit of the child. Therefore, all areas are covered by Tables three to eight, however the emphasis might be slightly different. AMS and ME UK also include standards which address in detail compliance around policies and procedures, financial stability and accountability, planning and assessments, and the traditional qualifications required by educators to be recognised as a teacher.

Table 3	Table 4	Table 5	Table 6	Table 7	Table 8
Montessori's *keystone* elements	**Montessori Optimal Development Outcomes**	**ME UK standards**	**MANZ Journey to Excellence**	**AMS Standards**	**AMI Global Standards**
Prepared adults Montessori trained leaders/ educators	Montessori training of leaders/ educators	Montessori trained leaders/ educators	Montessori qualifications for educators	All non-credentialed staff receive orientation to Montessori	Montessori trained educator. Leader has knowledge of Montessori
Observations		Observations	Observations	Class observations	Observation as foundational tool
Individual learning	Individual initiatives		Diverse learners	Student centered/ learning	Child starts/ completes work
Follow child's interests	Choose own purposeful activity				Chooses purposeful work
Prepared environment	Prepared environment	Prepared environment	Montessori learning environment	Environments	Prepared environment in and out doors
Mixed age groups	Mixed ages	Vertical grouping			Multi aged groupings
Uninterrupted work periods	Uninterrupted work	Work cycle	Uninterrupted periods of time		Uninterrupted daily work cycle
Materials	Materials	Materials/ activities		Materials	Range of materials
Partnership with families	Protective, secure family	Partnership with parents	Purposeful partnership with parents	Engagement, support & enrichment opportunities	Admissions process informs parents about Montessori
Montessori principles	Montessori principles	Management structures for Montessori principles	According to Montessori principles	Guided by Montessori philosophy	Montessori pedagogy drives all things.

Table 9: Summary of Tables 3 to 8 on Montessori Quality

The Australian government, through ACECQA, have also set a benchmark for quality in early childhood settings through the EYLF and NQS (Table 10).

Learning Outcomes	Quality Areas	Principles	Practice
Children have a strong sense of identity	Educational program and practice	Secure, respectful & reciprocal relationships	Holistic approaches
Children are connected with/contribute to their world	Children's health and safety	Partnerships with families	Responsive to children
Children have a strong sense of wellbeing	Physical environment	Respect for diversity	Learning through play
Children are confident and involved learners	Staffing arrangements	Ongoing learning and reflective practice	Intentional teaching Assessment for learning
Children are effective communicators	Relationships with children	High expectations and equity	Learning environments
	Collaborative partnerships		Cultural competence
	Governance and leadership		Continuity of learning and transitions

Table 10: ACECQA Benchmarks

ACECQA depict seven quality areas with standards, under five learning outcomes, underpinned by principles and practice (Table 10). Through taking the ACECQA benchmarks further and isolating the 'Leadership' recommendations from various sources (government departments of both early childhood (ACECQA) and primary schools (AITSL) and current researchers of traditional early childhood and primary settings) some common threads can be seen from the traditional viewpoint of leadership (Table 11).

Current Research on Leaders	ACECQA Quality Area 7 – Governance & Leadership	Department of Education/ Australian Institute for Teaching & School Leadership (AITSL) - Principal Standards
The leader is a trained educator (Siraj- Blatchford & Manni 2006; Montessori, 1913: 1936: 1942/19) Educator's working conditions/ motivation is influenced by leaders which then impacts student achievement. (Louis, Leithwood, Wahlstrom & Anderson, 2010) Leaders make a difference contributing to improving quality as it permeates the whole setting, affecting everyone - classroom	Effective leadership builds & promotes a positive organisational culture & professional learning community through - continuous improvement (self-assessment & Quality Improvement Plan in place) educational leader (develops/ implements education program, assessment, planning)	Creating/sustaining conditions under which quality teaching/learning thrive Promoting equity/excellence Effective leadership is distributed/collaborative, with teams led by leader working together to accomplish vision/aims of school. Principal Standards state – almost all successful leaders draw on same repertoire of core

conditions, quality of educators, built trust, provided quality PD opportunities, resolved conflicts. (Connolly, James & Fertig, 2017; Whitaker, 2013; Helal & Colli, 2016; Dempster, 2009; Duignan, 2012; Robinson, 2007; Varika & Sangeeta, 2016). Through leaders providing a favourable physical environment linking with positive emotional and social experiences, student achievement would be supported. (Varika & Sangeeta, 2016) 'Principal effect' as leaders increase students' outcomes by setting goals, encouraging staff to participate in PD, promote positive interactions between staff. (Helal & Colli, 2016)	development of professionals (through evaluation/plans for PD) Governance focus on philosophy/purpose of setting. Systems to manage risk/ operation of setting Roles/responsibilities are clearly defined for decision making/operation of setting.	leadership practice/ behaviour, some key personal qualities/ capabilities explain significant variation in leadership effectiveness. Understand their impact Leadership must be contextualised, learning-centred, responsive to diverse nature of Australia's schools. Contributing to development of a twenty-first century education system at local, national and international levels.
Raising children's outcomes through settings ambiance, resources, educational programming (Heikka & Waniganayake, 2011; Louis, et al, 2010; Waniganayake et al., 2015). Leaders focus on educational/social outcomes for children. (Siraj-Blatchford & Manni 2006)		Raising student achievement at all levels/stages A good leader improves student outcomes by as much as seven to twelve months (Gonski et al., 2018; Hattie, 2015).
Promote/ensure strong relationships between families/ educators (Meehan & Meehan, 2017). Quality of leaders effects learner achievements, also parental involvement and quality of teaching (Connolly, James & Fertig, 2017).	Engagement with families.	Influencing, developing, delivering on community expectations/government policy.
Role modelling – intent		Effective leaders must be role models
Leaders concentrate educator's PD-make use of resources for priority learning needs improve learning/ achievement. (Dempster, 2009)	Reflective practices. Ongoing cycle of plan/review, create continuous improvement.	Practices/capabilities of leaders evolve as they move through their careers

Table 11: Leadership standards from government and researchers.

Additionally, for quality in Montessori settings, in the USA Cossentino and Brown (2017) in their working paper on Montessori education, designed DERS. The scale tracks the quality instruction involving the educators use of observations, inviting a child to work, protecting engagement and concentration of the child. Developmental theory and practice and classroom features are also outlined in the DERS (Figure 6). Learning is taking place

among a dynamic set of interactions between child, adult, and environment, the "instructional core" (Elmore, Fiarman, & Teitel, 2009). Understanding a teacher directed instruction with the child becoming the centre in order to construct understanding through structured, spontaneous interactions with both adults and the environment (Cossentino, 2005; Whitescarver & Cossentino, 2007). Quality can therefore be considered as protecting a child's opportunity to engage in motivated problem-solving experiences, and to undertake concentrated investigations necessary for such experiences.

Figure 6: The DERS Wheel with Each Item Linked to Five Desired Outcomes.

The DERS model understands that Montessori environments need to foster children's executive functions, linguistic, cultural, and social fluency in addition to emotional flexibility. DERS states that attaining quality means observing, inviting, protecting not just engagement, but a child's opportunity to engage in motivated problem-solving experiences, and to undertake concentrated investigations necessary for such experiences.

2.5 Leadership Impact on | Quality of Student Outcomes

Leaders make a difference and are a contributor of improving quality, as leadership permeates the whole setting, either positively or negatively and affects all people in those environments (Connolly, James & Fertig, 2017; Whitaker, 2013; Helal & Colli, 2016). The quality of leadership at school effects the learner achievements, along with parental

involvement and quality of teaching (Connolly, James & Fertig, 2017). Whitaker (2013) maintained that if quality was about having a good program in place, then schools would succeed despite a lack of staff quality. Leadership competence has a focused influence on the quality of education. Helal and Colli (2016) found through creating an equation they called the 'principal effect', that leaders significantly increase their students' outcomes by setting goals, encouraging staff to participate in professional development and promoting positive interactions between staff.

Exploring leadership in Montessori settings is important given research findings that highlight leadership as a key contributor to student outcomes (Dempster, 2009; Duignan, 2012; Robinson, 2007; Varika & Sangeeta, 2016). In the school context, Duignan (2012) conducted research with over 1,500 school leaders in four countries and found that leaders exert an indirect impact on student achievements through classroom conditions and quality of educators. A good leader will employ both quality educators and ensure they have well-resourced classrooms. Robinson (2007) investigated 26 schools (18 from the USA) and found that leaders actively involved themselves with the educator, built trust, provided quality professional development opportunities, identified, and resolved conflicts at school.

School leadership has the largest impact on student outcomes when its focus is mainly on improving teaching quality (AITSL, 2020). This impact is achieved by concentrating the efforts of staff on improving the quality of teaching. The leader uses their educational expertise and management skills to help educators develop. Varika and Sangeeta (2016) investigated 105 leaders in New Delhi and found that student achievement is impacted indirectly by leaders as generally others, such as educators, implement the leader's requests and actions. They found that through providing a favourable physical environment linked with positive emotional and social experiences, student achievement would be supported. Dempster (2009) found that leadership actions improve aspects of student learning and achievement. This is accomplished by concentrating educator's professional development whilst making use of resources for high priority learning needs.

These same findings for schools regarding leadership impact also apply to early childhood contexts. Positive impact by leaders has a flow on effect to raising children's outcomes through the settings ambiance, resources, and educational programming (Heikka & Waniganayake, 2011; Louis, Leithwood, Wahlstrom & Anderson, 2010; Waniganayake,

Rodd & Gibbs, 2015). Louis, Leithwood, Wahlstrom and Anderson (2010) found that educator's working conditions and motivation were influenced by leaders which in turn impacts student achievement. Early childhood leaders will influence the quality of the setting for staff as their place of work, the provision of the level of quality of education, and children achieving their developmental outcomes, revealing that their role can significantly impact on the work educators do with children and families (Waniganayake, Rodd & Gibbs, 2015). The impact of educators is highlighted by Heikka and Waniganayake (2011), whose research focused on pedagogical (teaching) leadership. During a six-year study they aimed to establish what successful educational leadership looked like and to develop an understanding of how leaders can improve learning. The investigation was one of the largest of its kind and has increased understanding of the connections between student education and leadership. They concluded leadership means "taking responsibility for the shared understanding of the aims and methods of learning and teaching" (p. 510) educators must ensure that the pedagogy implemented must match "children's interests, abilities and needs." Leader's main roles were being "responsible for creating a community that fosters learning and communication and where responsibilities are distributed among teachers, children, families and the community" (Heikka & Waniganayake, 2011, p. 510).

An investigation of the successful establishment of pre-school education and quality leadership demonstrated that where strong leadership exists children will make improved all-round progress. The authors of the study 'Effective Provision of Pre-school Education' (EPPE) Siraj-Blatchford & Manni (2006), and its extensions, highlighted that this leadership included warm interactive relationships being formed by the educator with the children, high staff retention, the leader being a trained educator, and focus placed on educational and social outcomes for children. The study's participants came from a sample of twelve high quality early years settings. The authors found that supported by a good leader, educators use open ended questioning to understand the correct learning curriculum and to focus on the needs of individual children. Collaboration and team work with ongoing support is effective in early childhood settings and they described this as 'distributed leadership'.

Measuring the impact on children from within early childhood education is difficult as there are no longitudinal studies in this area. Some do link impact on children with wider quality settings, as demonstrated by Siraj-Blatchford and Manni (2006) in their research. A fundamental responsibility of leaders in early childhood is to promote and ensure that

relationships between both families and educators are strong as this increases a child's opportunities in life. Leadership is, therefore, a significant influence on families and their children and can make a key difference (Meehan & Meehan, 2017).

Following the theme of leadership impact on student outcomes, research suggests that classroom teaching has the largest influence, but leadership is second in impacting student's education (Leithwood, Harris & Hopkins, 2008; Leithwood, Patten & Jantzi, 2008). Leithwood, Harris and Hopkins (2008) through an analysis of existing research and Leithwood, Patten and Jantzi (2008) through their study of educators and leaders over three years found that that a leader's effectiveness has a moderate influence both within the class and across a setting but a large impact on the individual student's education. Leithwood, Harris and Hopkins (2008) found that leaders had an impact on working conditions, motivation and commitment level which can indirectly improve teaching and learning. Another extensive review of research funded by government education departments and generally accepted across Australia showed that leadership is essential to student achievement, with a good leader improving student outcomes by as much as seven to twelve months (Gonski, Arcus, Boston, Gould, Johnson, O'Brien, & Roberts, 2018; Hattie, 2015).

2.6 Leadership Impact on | Educators

Leaders, when employing staff must have educators in Montessori settings trained in Montessori education and additionally, need to support their knowledge to implement authentic Montessori philosophy and practice. Montessori trained educators understand her principles and practices including how to prepare the environment, conduct observations and understand the planes of development through maintaining multi-aged classes. The educators support the uninterrupted work periods and maintain the materials for individualised learning. They understand the importance of following the child's interests through child directed work and removing any obstacles to the child's development (Joosten, 1970; Lillard, 2005; Montessori, 1913/1965).

One of the roles of an early childhood leader is to support staff retention and job satisfaction. A leader's responsibilities are not only hiring appropriately trained educators but retaining those educators (Rodd, 2013). In a study by the New Teacher Centre, University of California, over 40,000 Massachusetts school educators answered a Teaching,

Learning and Leading Survey that analysed if learning and teaching conditions that are positive exist in schools. Hirsch, Frietas, Church, and Villar (2008) analysed the data and found that many educators felt that leaders were ignoring concerns they had which had the knock-on effect of educators not wishing to work in those schools. Leithwood and Louis (2012) undertook a five-year study on leaders covering 43 districts, across nine states and included 180 primary, middle, and secondary schools in the USA. One of their main findings was that a school's success was dependent on whether a leader hired and retained quality educators.

Educators see a negative impact on their work if the leader lacks empathy as they rely on positive support from their leader. Lambersky (2016) and Leithwood and Beatty (2008) found that leaders have a significant impact on staff. Leaders are aware that they have an impact on educators, this can be undermined through burnout (emotional exhaustion) or may be sustained through support. They revealed a growing acknowledgement of the significance of educator performance being affected by educator emotions. In that, educators who are not happy at work will either leave the profession or school or not perform well. Lambersky (2016) conducted a study of 16 schools across Canada which highlighted that an educator appreciated seeing their leader in action and being available. Educators found some leaders were eager to pass the blame and they viewed some improvement initiatives that the leader advocated for in relation to their own career ladder and not for the benefit of the school or centre. Some school boards were reluctant to keep leaders accountable and enact employment termination, no matter how ill-intentioned or ineffective a leader had become. Horng and Loeb (2010) found that leaders not only need to hire quality staff, but in addition another factor that impacts children's learning, is the decision of which educators are assigned to which classrooms. Leaders needed to retain teachers and create opportunities for professional development leading to an educator's improvement. During the studies carried out between 2008 and 2010, the authors found that good leaders manage to employ and then support educators through allocating resources they require and budgets in order to keep the learning environments functional and maintain a positive work environment.

Educator's mental health can additionally impact a child's development (Gilliam & Shahar, 2006; Oberle & Schonert-Reichl, 2016; Zinsser, Christensen, & Torres, 2016). Positive mental health predictors include the quality of care, the curriculum, and interactions between educators and children. However, studies have highlighted that children's

challenging behaviours can lead to educator's stress and burnout (Brackenreed, 2008; Gebbie, Ceglowski, Taylor, & Miels 2012; Nislin, 2016) and can influence teachers' sense of worth (Coplan, Bullock, Archbell & Bosacki, 2015; Zinsser, Christensen, & Torres, 2016).

Pedagogical early childhood leadership's significant contribution is facilitating partnerships with others, making learning evident and increasing professionalism through articulating key issues in curriculum and pedagogy (Coughlin, 2013). This enables practice to change, and educators rise to the challenge of becoming researchers in the learning and teaching process. Influencing decision making, mentoring, and coaching staff and contributing to community appreciation about early childhood programs is central to pedagogical leadership. Rodd (2013) clarifies that moving the educating team towards best practice is part of the support that early childhood leaders give. Jones and Pound (2008) acknowledge that early childhood educators in child development, curriculum, educational pedagogy, and early learning have a sound knowledge base or expertise. Neumann, Jones and Webb (2007) found that teaching leadership skills to educators is vital for gaining an understanding of how the organisation functions as a whole. Leaders should not use distributed leadership to delegate administrative responsibilities to educators' keen on leadership but to redistribute pedagogical leadership authentically (Wright, 2008).

2.7 Leadership Impact on | Families

Montessori highlighted how adults and children work in entirely different ways. The adult works on the environment and transforms it to suit themselves with definite ends in view (Standing, 1957). The child works to become a grown up by an inner force which urges them to continual activity so acquiring little by little their mature characteristics. Montessori found that adults may put obstacles in the child's path and might only give them an adult environment where nothing is adapted to their size, and the child must fight the adult who does not understand the work they are engaged upon (Montessori, 1942/1970).

Various studies have been conducted to demonstrate the impact on families through leadership (Barr & Saltmarsh, 2014: Day, 2013: Emerson, Fear, Fox & Sanders, 2012). Parents respond well to leadership delivery of adequate resources and developing a positive school climate (Emerson, Fear, Fox, & Sanders, 2012). The parents see a clear focus on student learning, child development and wellbeing as paramount from the leader. The

authors found that if the leader provided good support, then family engagement strategies were more likely to work. Further parent engagement is higher when the school climate, developed and nurtured by the school leader, is perceived as being safe, friendly, trustworthy, inclusive, respectful, and collaborative (Day, 2013). Leaders within a school, especially the principal and board chair influence parent engagement by shaping the school's climate. Barr and Saltmarsh's (2014) qualitative study with parents in NSW found that fostering and maintaining relationships between family and the school were successful when leaders had a positive attitude, communicated well, and demonstrated good leadership practices. The study revealed that parents believed that the leader's own personal vision, and how it was actioned, filtered down to other staff which then directly set the school climate. They concluded that leaders will be more successful if they distribute leadership among parents and educators.

One of the most difficult roles for early childhood leaders is developing genuine family participation and involvement which is a critical component of quality (Rodd, 2013). Rodd also asserts that through appreciating families not solely as 'clients' results in quality education for the children as they share the mission, vision, goals and purpose of the setting. Rodd sees families as resources, with the possibility to be valuable additions by encouraging community development within the setting and by sharing power and responsibility. A survey conducted by AMI in the USA asked over 600 Montessori parents and over 1000 non-Montessori parents about their views on Montessori education. The quality of the educators delivering the child's education and basic safety were top priorities for Montessori parents (91%) and the quality of leadership at the setting was 89%. Although, to have a successful Montessori primary school, Montessori leaders would also need to address the finding that 89% of children discontinued in Montessori after the age of nine (AMI, 2017).

Australian families can claim some financial support, the Child Care Subsidy, depending on the age of their child and the child's immunisation status from the government (Services Australia, 2021). However, Montessori settings, both early childhood and schools, are generally not funded by the government. Kellard and Paddon (2016) when researching Indigenous participation in early childhood education explore findings from the research that have highlighted both explicit and implicit barriers to families participating in early childhood services including: cost, location, culture, communication and the service itself.

Leaders of Montessori school settings, in particular, can have a large impact in this area as they have the ability, in conjunction with the school board, to set up subsidises for families.

Collectively the research reviewed leads to the assumption that leadership impacts children, staff and families and effective leadership, with the correct training for the type of setting, can bring about positive impacts to all those involved in that setting. Effective leadership leads to highest quality educational settings, dependant on how the leader implements their role. Examining what quality means, both for leaders and educators, and how leaders can be quality leaders and support quality educational implementation is therefore highly relevant to this research.

2.8 Leaders Impact on | Montessori Settings

Contemporary leaders of Montessori settings are influenced by Montessori's own views, perspectives of stakeholders (families, staff, board members), Montessori organisations, government legislation and the leader's own perspective. Montessori was unambiguous on what was required to "open a school and call it a Montessori School" (Standing, 1957, p. 73), as once participants completed her course it "entitled the holder to open a school". Montessori's views also included employing trained Montessori educators (Lillard, 2005). Lillard stated that "understanding Montessori requires deep and sustained study" (Lillard, 2019, p. 958). Lillard (2018) argued that if Montessori education is implemented properly without educators adding in "workbooks, commercial toys, and other items to their classrooms" (p. 398) it is highly effective at educating children. Lillard found that problems, such as not establishing core Montessori principles in a Montessori setting, are likely to occur if leaders have not been through Montessori training.

School leaders have usually been educators, department heads and deputies themselves before applying for a principal position. Many universities now have Master of Education and Master of Educational Leadership courses. Montessori stated that by participating in her training the Montessori diploma entitled the diploma holder to run a Montessori School (Standing, 1957). On the whole this is not what has happened to Montessori schools and centres in Australia. Persons applying for leadership positions in Montessori schools will bring experience and knowledge with them. The Australian government's advice is for leaders to place emphasis on raising student achievement,

promoting equity, teaching quality, serving the community, developing knowledge, interpersonal and social skills, values, and vision (AITSL, 2018). Early childhood researchers have found that one reason a leader is chosen to run a centre is because that person has been employed there the longest (Rodd, 2013).

Stakeholders require good leaders in Montessori settings as research highlights leadership as a key contributor to student outcomes (Duignan, 2012; Montessori, 1913/1965; Robinson, 2007). Montessori (1913/1965) asserts that the prepared environment, educator, and child create a learning triangle that needs to be supported. In the school context, Duignan (2012) conducted research with over 1,500 school leaders in four countries and found leaders exert an indirect impact on student achievements through classroom conditions and quality of educators. Robinson (2007) investigated 26 schools and found leaders actively involved themselves with educators, building trust, providing quality professional development opportunities, and resolving conflicts at school. Halsey (2018) found "highly effective school leaders are critical in regional, remote and rural settings because they play a key role in establishing and fostering a school climate for learning and achievement to flourish" (p. 53).

2.9 Quality Education in Early Childhood Education, School and Montessori Settings

The aims of the study are to clarify the characteristics needed to engage with effective leadership, such as humility, patience, courage, and respect (Montessori, 1913/1965; 1936/1983). Furthermore, the study reveals there are inconsistent approaches leading to variable quality in Montessori settings, and the effect of non-adherence to Montessori philosophy and practice can have an impact on the children's outcomes, educators, and families. Quality in Montessori settings does focus on educator practices, with the emphasis on the child learning not the educator imparting knowledge. Lillard (2005) cites traits of a quality Montessori program as including a beautiful environment, feeling of peace, different kinds of work being carried out, absence of worksheets and workbooks. The children are at ease, happy, have a sense of purpose, show grace and courtesy, are developing concentration under the constant awareness of the educator who only intervenes if children seem aimless or are distracting others. In Montessori settings, quality classrooms could be measured by having Montessori trained educators in situ which would ensure the learning environment is prepared, and the planning, implementing, and assessing of the

curriculum is finalised. Educators and leaders require a strong commitment to personal improvement, knowledge on the Montessori theory, principles and practices thereby allowing Montessori principles to guide all aspects of the setting (Lillard, 2005).

The 2030 Sustainable Development Goals were ratified at the United Nations on September 25, 2015 (Association for Supervision & Curriculum Development (ASCD), 2016) and echo Montessori's benchmark for education. They state that a quality education is one that focuses on the whole child—the social, emotional, mental, physical, and cognitive development of each student regardless of gender, race, ethnicity, socioeconomic status, or geographic location. Education prepares the child for life, not just for testing (Montessori, 1931/2017; Standing, 1957). Quality education is supported by ensuring access to quality educators, providing use of quality learning materials, professional development and establishing safe and supportive environments. Education is not simply a content delivery system; rather, it is a system designed to help all children reach their full potentials and enter society as full and productive citizens (ASCD, 2016)

Quality in early childhood settings is gauged through different perspectives and can be measured by, for example, staff to child ratios, children's outcomes and health and safety. Researchers (Bruckauf & Hayes, 2017; Melhuish, Phan, Sylva, Sammons, Siraj-Blatchford, & Taggart, 2008) have found that the pedagogical practice, child engagement, interactions, care, education, and relationships are all fundamental to the success of a child in later life. Settings of quality are built through partnership between educators and families who establish communication and support so that both home and learning environments contribute to the child's learning. Recently, greater acknowledgement has been paid to leadership as a quality contributor in early childhood settings and therefore requires structures in place such as training and professional development (Fenech, 2013). Fenech also examined the Council of Australian Governments (COAG) who developed a National Early Childhood Development Strategy in 2009 which looks at long-term national reforms, including universal access to early childhood settings. The issue of quality in early childhood has been recognised by many professional and government agencies across many countries (Waniganayake, Rodd & Gibbs, 2015).

For leaders to provide quality in early childhood environments they will need to hire qualified and experienced educators, prepare the indoor and outdoor environments, look at

the sizes of groups and what routines are in place, implement the curriculum, the child to staff ratios and ensure educators work as a cohesive team (Colmer, 2008; Rodd, 2013; Siraj-Blatchford & Manni, 2006). Leaders in quality early childhood settings need to use reciprocal and harmonious relationships and respond to economic, cultural, social, and political changes (Rodd, 2013). Departments of Education assess the quality of the educational programs in schools from Kindergarten to Year 12. Quality is assessed is through the achievements of students; the standard of teaching at the school; student engagement in learning and the facilities provided at the school (Siraj-Blatchford & Manni, 2006). Quality early childhood settings do predict improved cognitive skills, self-regulation, and prosocial skills for children (McCain, Mustard & McCuaig, 2011).

In school settings quality education requires leaders to support employment of quality educators who endorse the students learning and progression, and an application of effort to learn the content (Fenstermacher & Richardson, 2005). Additionally, quality education directly relates to how an educator act and teaches the students. Fenstermacher and Richardson (2005) found that good teaching, within a community environment dedicated to learning and teaching, allowing for learning and teaching occasions, is one of the areas of quality teaching, in addition to the student trying and being willing to learn. What content is to be taught is a factor that rests with an educator's activities, and in Montessori education preparing the dedicated environment for the setting would also be an educator-led activity supported by the leader. Employing quality educators who can engage, excite, connect, and follow the students in order that each student participates in the lesson to learn is vital. The authors discuss Green's (1971) good teaching ideas of the acts of logical and psychological teaching and add their own theory about acts of moral teaching. Logical and psychological acts, such as, demonstrating and motivating. Whilst acts of moral teaching are concerned with actively role modelling moral traits, including honesty, fairness, respect, and courage. All of these attributes resonate with the Montessori philosophy.

Dahlberg, Moss and Pence (2008) propose an understanding of quality, which is subjective, relative, dynamic, and values-based, arguing that quality needs to be contextualised and to consider culture and diversity. Critically Dahlberg, Moss and Pence additionally ask who is defining quality and how it is being defined. Measuring quality can include regulatory indicators (qualifications and staff-child ratios) but quite often disregards children's moral, ethical and spiritual development.

The Australian government state that a quality leader places prominence on raising student achievement, promoting equity, teaching quality, serving the community, and developing knowledge (AITSL, 2018). Halsey, (2018) completed a government review into regional, rural, and remote education in Australia. The review was tasked to consider issues impacting students in these areas and to identify innovative approaches to support students to achieve and progress their education. He declared that "curriculum and assessment are part of quality education" (p. 6). Additionally, ACECQA (2021) instructs the early childhood sector to implement the NQS where quality centres on the delivery of an educational program and practice, children's health and safety, the environment, leadership, staffing and building relationships with children and families.

When accessing all the literature, limited peer-reviewed research could be found on Montessori leadership, and none have been conducted in Australia. The literature reveals that leadership impacts educational settings and is shown to make a positive or negative difference in relation to quality education, outcomes for children, engagement with parents and retention and development of educators. Additionally, the literature analysis reveals how the study fits into the existing body of leadership knowledge through the examination of the information through a Montessori lens. Lillard (2018) stated that authentic Montessori is crucial for quality and other studies of Montessori education typically lacked a clear indicator of Montessori quality. In addition, Lillard (2012) found that the quality of the Montessori program appears to affect Montessori outcomes for students.

Chapter 3: Leadership Theories and Characteristics Leaders Require

"…our extensive experiences throughout the world…our work has resulted in something more than the creation of a new method of education… our principles have only been confirmed." (Montessori, 1913/1965, p. ix)

"…the test triumph… will always be to obtain a spontaneous progress of a child." (Montessori, 1915/1997, p. 169).

"*…the adults need… a moral alertness*" (Montessori, 1967/1992, p. 151)

"…adults adjusting themselves to the child's needs" (Montessori, 1936/1983, p. 106).

"…distributed leadership… can result in a team of educators who are committed to a culture of learning, respect and teamwork." (ACECQA cite Waninagayake, Rodd & Gibbs, 2015).

3.1 Educational Leadership Theories

Before the 1900s there were no specific models of leadership in education, after this period, however, distinctive leadership models started to develop (Gumus, Bellibas, Esen, & Gumus, 2016). Some researchers in the Montessori educational field (Bennetts, 2017; Castaneda, 2016; Castillo, 2017; Kambrich, 2018; Mackenzie, 1994; Schaefer, 2011; Standing, 1957) have found that leaders of Montessori settings may align themselves with aspects of various leadership theories including instructional, servant, transformational, distributed, authentic and ethical, which are explored in this chapter. Contributions on educational leadership styles may provide reference points from which to begin a deeper consideration of theories of educational leadership. Familiarity with these works, such as servant, maybe relevant to understand ways in which the theories have been developed, are demonstrated, and are sometimes questioned in educational settings.

Instructional leadership, some researchers maintain, (Mackenzie, 1994; Hattie, 2015; Gumus, Bellibas, Esen, & Gumus 2016; Gonski, Arcus, Boston, Gould, Johnson, O'Brien, & Roberts 2018) is the main role of the school leader to be the most effective. Decisions are based on the children, who are placed at the centre of the leadership role and are achieved

through collaboration, observations and the leader being in the classroom at times. Leaders need to carry out class observations and support educators by collaborating in planning and evaluating programs (Mackenzie, 1994). Therefore, it would follow that the leaders of Montessori settings would need an understanding of Montessori implementation, to be of support in a Montessori classroom and carry out observations of the happenings in a class. Both Robinson (2007) and Gumus, Bellibas, Esen, and Gumus (2016) found that instructional leader's effectiveness in schools is developed by visiting classrooms, in addition to the ability to coordinate and control the multitude of tasks needed to contribute to teaching and curriculum issues. Hattie (2015) found that instructional leaders can instill educators with a desire to aim for high student achievements.

Transformational leadership is centered around building the follower's commitment and capacity for higher level morality and motivation (Burns, 2004). Hence, leaders engage people who follow the goals and vision of the setting and inspire their followers to put the setting before their own self-interest (Castillo, 2017; Moolenaar, Daly & Sleegers, 2010). Moolenaar, Daly and Sleegers (2010) research in the Netherlands investigated a school's innovative climate and the relationships between the school's social network and the leaders' position. The authors discovered that the leadership approach can lead to extra effort and greater productivity, innovation, good educator practices and collective effectiveness. Castillo (2017) noted that transformational leadership looks for potential motives in followers, seeks to satisfy higher needs and engages their whole being.

Distributed leadership is the most common model researched in education (Gumus, Bellibas, Esen, & Gumus, 2016). "Distributed leadership is first and foremost about leadership practice rather than leaders or their roles, functions, routines and structures" (Spillane, 2005, p. 144). Harris (2009) says that distributed leadership is about the organisation's relationships and interdependencies and involves vertical and lateral components and sharing. Distributed leadership suggests all staff are supported and empowered to take on decision-making in their setting and through collaboration, and offer solutions to issues (Gumus, Bellibas, Esen, & Gumus, 2016). Montessori leadership is seen by some as distributed as all teachers lead their classrooms and collaborate with each other to improve settings (Schaefer, 2011). Castillo (2017) highlights that distributed leadership can create a collaborative community through, for example, team meetings, by supporting professional growth of teachers, developing a group strategic plan, and discussing class

challenges. Kambrich (2017) found that adhering to Montessori principles and leadership can support the existence of distributed leadership.

Servant leadership emerges as one of the oldest, if not the first leadership style. Many researchers have studied servant leadership however, Greenleaf and Spear (1977) provide the most thorough presentation. The authors outline the philosophical underpinnings of servant leadership, demonstrating clear connections to authentic, transactional, and transformational conceptualisations of leadership in education. Servant leadership's first emphasis is that the leader in any setting, before their own needs and desires are in hand, address those of the followers (Castillo, 2017; Cerit, 2009; Darko, 2009; Greenleaf & Spear, 1977). Further, this model highlights personal development and empowerment with a focus on sustainability and social responsibility (van Dierendonck, 2011). It is characterised by listening, empathy, awareness, and persuasion Darko, 2009). Cerit's (2009) survey of 595 educators across 29 primary schools in Turkey found that servant leadership promotes building a community, authenticity, valuing and developing people, sharing authority and position for everyone's good and for the school itself. Castillo (2017) found that servant leadership in Montessori settings can provide and share leadership, value, and develop people, display authenticity and build community.

An authentic leader makes their decisions and act using high ethical ideals with a positive moral outlook (Duignan, 2012; Walumbwa, Avolio, Gardner, Wernsing & Peterson, 2008; Whitehead, 2009). Walumbwa, Avolio, Gardner, Wernsing and Peterson (2008) tested authentic leadership using examples from China, Kenya, and the USA. They identified traits such as core self-awareness, regulating themselves, transparency, acting authentically and the way information is processed. Whitehead (2009) found that someone who is aware of themselves, seeks to improve themselves. They possess humility, consider others welfare, demonstrate ethics and morals to build trust and is dedicated to school's success. Duignan (2012) declares that demonstrating ethics and morals is a focus for authentic leadership, which aligns with Montessori beginning the training of student educators in her educational approach (Standing, 1957). Montessori insisted that only she was able to train adults in her philosophy to work in Montessori settings and whoever was running her settings needed a deep understanding of Montessori education and philosophy. Defining leaders who are ethical are those individuals with a range of characteristics including transparency in decision-making and considerations of social justice, equity, and fairness. Jurkiewicz and

Giacalone (2017) state ethical leaders have significant impact on culture of an organisation and "have improved employee physical, psychological, and job wellbeing" (p. 2).

Ethical leaders cultivate moral values, making moral decisions and ethics are now considered a central element of both early childhood and school leadership for future research focus (Duignan, 2012; Ehrich, Harris, Klenowski, Smeed, & Spina, 2015; (Gumus, Bellibas, Esen, & Gumus, 2016; Sergiovanni, 2001). Gumus, Bellibas, Esen, and Gumus, (2016) discuss a moral manager being someone who communicates to staff about ethics and values whilst role modelling actions. Ehrich, Harris, Klenowski, Smeed, and Spina (2015) conducted interviews with government school leaders and found ethics, acting justly and fairly, were a fundamental consideration when implementing leadership. Ethics and leadership were inseparable and tied to students' best interests. Standing (1957) affirms that Montessori explains that "moral preparation is the first step of every teacher…to purify her heart and render it brimming with charity towards the child" (p. 298).

3.2 Leadership Theories that Align with Montessori Philosophy

As previously documented, Montessori indirectly outlined how Montessori leaders should lead settings. A variety of biographical works highlight Montessori's own leadership (Babini, 2000; Kramer, 1976; Standing, 1967; Trabalzini, 2011) demonstrating different models of leadership during her lifetime including servant, ethical, distributed, transformational, instructional, and authentic.

There is a unique structure to Montessori primary schools as they include both early childhood and school age classrooms. In some respects, various leadership theories might align with the Montessori approach. Ethical leaders cultivate the moral values (Sergiovanni, 2001), authentic leadership needs humility, looking after others and uses ethics and morals to build trust (Whitehead, 2009). Furthermore, servant leadership focuses on leaders needs coming second to the followers (Greenleaf, 1970) and distributed leadership is demonstrated by Montessori teachers leading their classrooms (Schaefer, 2011). Additionally, transformational leadership builds the follower's commitment to motivation to the highest level (Burns, 2004). Although the instructional leadership model has the children at the centre of the leadership role (Gumus, Bellibas, Esen, & Gumus, 2016) the leader would need to understand Montessori principles and practice to implement instructional leadership.

Both Montessori's theory and life story can inspire many leaders. Leaders of Montessori settings should base all they do on a self-transcending higher commitment, an unwavering vow to put the development of the children first, understanding their *individual intent.* Additionally, leaders should search for the best people to collaborate with and learn from as Montessori herself did with Nobel laureates Gandhi and Rabindranath Tagore. Furthermore, leaders should educate others about child focused education and not have a personal mission of self-promotion or climbing the career ladder (Gunderman, 2020).

3.3 Characteristics of an Effective Educational Leader

Interpersonal abilities and emotional intelligence are characteristics of good educational leaders (Rodd, 2013: Woods, Husbands & Brown, 2013). Qualities crucial to successful leadership were researched by Woods, Husbands and Brown (2013) including the ability to work through both operational and strategic components, the skills to understand how change works and be able to direct staff to succeed through change, along with spotting talented individuals (the right person selection to place people in the correct positions). Rodd (2013) states that emotionally intelligent leaders can not only inspire personal and professional growth in others but have the power to elevate standards.

Leading and engaging respectfully and ethically with staff whilst using compassion and integrity will impact a school's overall quality and performance (Duignan, 2012; Robinson, 2007). Robinson (2007) highlighted that it is not only what a leader says but also the leader's subsequent actions which are essential, as these actions can create a sense of trust. Robinson's research found that in schools where trust levels increased, educators demonstrated that they were more willing to try new things, increase their partnerships with parents and the professional community and they increasingly felt responsible for their students.

The embodiment of quality and inspiring leaders is an individual who works tirelessly for the institution, the altruistic person who uses all their energy to try and make the school great without needing acknowledgement (Duignan, 2012: Woods, Husbands & Brown, 2013). An effective trait is seen in leaders who work relentlessly on behalf of pupils and work to make their school a better place. A leader holding consistent and high expectations for their students is one of the successful leadership characteristics.

Other characteristics associated with leaders are being kind, patient, warm, nurturing, goal oriented, planner, proactive, professionally confident, visionary, influential and a mentor. Researchers (Duignan, 2012; Hard, Press, & Gibson, 2013) found effective leadership also means tranquillity, charity, moral judgement, respect, ethics, compassion, offering meaningful kindnesses to staff and students, concerned with issues of social justice with a self-awareness and self-regulation while delivering motivation and empathy to the setting. These characteristics are mentioned as paramount for adults in Montessori settings throughout Montessori's writings.

Leadership is seen as a professional responsibility by the early childhood sector and in Australia, and leadership is strengthened through policy improvements and the introduction of National Quality Standards (ACECQA, 2020). Leadership roles in all settings are demanding and multi-faceted. Therefore, allowing leaders to make their own decisions can improve school performance (Pont, Nusche, & Moorman, 2008). Similarly, Starr (2009) states that leaders need skills to help with their leadership roles which are akin to an organisation's Chief Executive of Operations (CEO). The leader's job can include budgets to be dispersed through the setting, whilst managing the strategic planning, human resources, physical setting facilities and marketing of the setting, all in addition to the main areas of curriculum, pastoral care, teaching, and learning.

3.4 Characteristics of an Effective Montessori Leader

Altruistic leaders are the personification of quality and inspiring leadership which Montessori also aligns to (Duignan, 2012; Woods, Husbands & Brown, 2013). Montessori's educational approaches are consistent with research that identifies leaders working relentlessly solely for making a setting a better place (Standing, 1957). Montessori saw the need for adults to be role models, demonstrate morals and respect, show humility, whilst being fair and trustworthy, leading the children to work, following the child's interests and serving the child (Duignan, 2012; Standing, 1957).

Montessori (1967/1992) understood the need to make, recognise and use moral judgements, saying that the adult "must acquire a moral alertness which has not hitherto been demanded by any other system, and this is revealed in her tranquillity, patience, charity and

humility. Not words but virtues are her main qualifications" (p. 151). Montessori leadership is grounded in Montessori principles, driven by the heart and code of ethics and morals. Montessori leaders require leadership theory, Schaeffer (2011) argues and describes this leadership as being guided by moral authority and possessing humility and drive which leads their educational community to freely develop. AMS established a 'Code of Ethics' in 1969 which includes commitment to the student through encouraging independent actions for learning, including all children in the educational program, protecting the health and safety of students, honouring professional commitments, and keeping information confidential. Additionally, the Code emphasizes commitment to the public via support from AMS and teaching colleagues. Furthermore, highlighting commitment to the profession through equal treatment for all members of the Montessori education profession (AMS, 2021).

Talent identification is required to find potential leaders and most pre-principal identification and preparation opportunities rely on individual leaders and on their need to fill a position (Brierly, 2013; Woods, Husbands & Brown, 2013). Cossentino (2005, p. 118) explains that "the 'who' of leadership (who makes a good leader?) to the 'what' of leadership (what kinds of things do good leaders do?) to the 'how' and 'why' of leadership (how do leaders think as well as act, and why do they think and act in those ways)" means leaders act from what they know and who they are as people. She states that leaders need to be 'transparent' (p. 125) in their practices and should make themselves as 'invisible as possible' (p. 130). Finding talented leaders means establishing if the leader can lead through the reliance on cooperation, creating confidence, showing staff how, generating enthusiasm, fixing errors, and making work interesting (Glasser, 1990).

Fenech (2013) found in her research that most educational leadership research relates to schools and there is a need to focus on the development of leadership within early childhood. An 'educational leader' (an ACECQA position) is one who goes beyond administrative and management areas and improves and advances the educational experiences and policies. ACECQA developed Quality Area 7 of the NQS to demonstrate the importance of educational leadership (ACECQA, 2020). Leadership in early childhood settings are not similar (Thornhill, Saunders & Lewis, 2009) as early childhood is more diverse, the variations in size and complexity of the sectors, philosophies and early childhood settings are generally smaller than a school setting. Although Ebbeck &

Waninagayake (2003) argue that good leadership can occur in both sectors as long as the leaders have particular skills, attitudes and qualities.

Leading a Montessori learning community requires more than an understanding of school management (Wolff, Eanes & Kamistein, 2005). It calls for the ability to stay focused on the principles, priorities, systems, and strategies that can produce an authentic and sustainable Montessori program. The authors developed the course for Leading Schools at Houston Montessori Centre for leaders to learn what is working effectively, have a clear understanding of the needs and aspirations of all in school community and implement a clear vision of educational outcomes. Additionally, a strategic plan for program and school enhancement to aid personal growth and self-improvement, for developing leadership capabilities of others in the school community and for making time to build bridges of understanding with all in the community has been created. Furthermore, an effective leader poses questions to facilitate clarity, rather than to impose rules and provide all the answers, and they maintain a standard of quality and consensus. Leaders build community on a foundation of gratitude and aspirations, and support innovation and experimentation whilst being aware of the world beyond Montessori (Wolff, Eanes & Kamistein, 2005). Preparation of the leader's environment is vital to support effective Montessori leadership, producing both the stimulation and isolation required for success, such as, long, uninterrupted work (and play) periods on a regular basis. Creating time for deep reflection and systems, thinking about the needs of the setting, and making their decisions according to what is good for the child and healthy development.

Montessori argues for a 'new' individual to lead Montessori settings with interpersonal abilities and emotional intelligence (Montessori, 1913/1965; Rodd, 2013: Woods, Husbands & Brown, 2013). Additionally, as other researchers have found, Montessori outlined tranquillity, charity, moral judgement, respect, ethics, compassion, meaningful kindnesses, social justice, motivation, and empathy as being key for effective leadership (Ehrich, Harris, Klenowski, Smeed & Spina, 2015; Gumus, Bellibas, Esen & Gumus, 2016; Montessori, 1913/1965; Sergiovanni, 2001). Finding good leaders becomes a priority for settings and the next section explains where potential leaders might be found.

3.5 Where do Potential Leaders Come From?

Leadership involves supporting the development of individuals who are interested to lead (Fullan, 2010). Motivations which affect an educator's decision to take on a leadership role include potential leaders who already have a positive influence within the organisation's community, they transform classrooms, initiate changes that benefit all, which leads them to want to experience a leadership role with all its personal and professional challenges. A variety of studies (Dempster, 2009; Fink, 2011; Fullan, 2010; Hancock & Muller, 2009) develop the theme of educators becoming leaders. Fullan (2010) placed importance on developing leadership from within schools through succession planning. He argued that there is value to this slow type of knowing and learning within the educators' own context. Diamond (2014), Fenech (2013) and Gonski, Arcus, Boston, Gould, Johnson, O'Brien, & Roberts (2018), investigated leadership professional development. Fenech, (2013) argued that more leadership development is required, as it has been overlooked at governmental level. A study of student educators in university was conducted with early childhood educators and asked if they had any leadership aspirations. Diamond's (2014) study highlighted soon-to-be teachers could improve their aspirations towards leadership through real life projects and engaging with leadership literature. There is a need for potential leaders to closely examine exactly what is involved in the leader's role as they may lack the physical, mental, and emotional commitment to leadership. For aspiring leaders, Gonski, Arcus, Boston, Gould, Johnson, O'Brien, & Roberts, (2018) stated that with targeted support and preparation the leader's role can be made more attractive and show a clear pathway to follow to enable good leadership.

Over three quarters of high performing leaders said that being identified as a potential leader was a major contributor to their development (Barber, Whelan & Clark, 2010). Leaders need a reliable mentor and cultivate leadership throughout the setting (Colmer, 2008). Meanwhile Darling-Hammond, LaPointe, Meyerson, Orr and Cohen (2007) found that there are factors that discourage teachers from taking their first leadership steps, including accountability, expanding roles and responsibilities, poor preparation and inadequate support. Leaders need a clear pathway to follow which will make a leader's role more attraction (Gonski, Arcus, Boston, Gould, Johnson, O'Brien, & Roberts, 2018). Furthermore, potential leaders have only a vague idea of what the job entails and do not prepare themselves well emotionally, mentally, or physically (Gray & Smith, 2007).

Pechura (2003) highlights the importance of encouraging leadership development in others by giving opportunities, recognising leadership efforts of the team, model and teach leadership skills and building relationships to encourage leadership. Providing time and resources for others to be leaders will sustain leadership capacity. Additionally, providing on the job and in-service leadership training also helps develop an ethos where staff are mentored to take on higher levels of responsibility. Ronald Heifetz, a leadership expert from Harvard University writes on the challenge of 'staying alive' as a leader (Nixon & Sinclair, 2017). He identifies main sources of risk and suggests the myth of leadership is the myth of the lone warrior, the solitary individual whose heroism and brilliance enable him to lead the way. However, this excludes others who do not fit that mould. He argues that people are not born to lead, nor that leadership is carried out alone (Nixon & Sinclair, 2017).

Professional development and university studies linked with Montessori training are vital to spread Montessori leadership. In Montessori educational settings adults need to accommodate children's freedom with responsibility and a more dynamic role in their learning so they are inspired to later take their place in their community as responsible and contributing adults - our future leaders (Montessori, 1967/1992). Wheatley (2004) said that organisations really need the capability for leadership to emerge from anywhere in the organisation when it is needed. As noted previously the government will only allow a graduate to teach if they hold a recognised university teaching degree and have registered as an accredited educator. Once qualified, educators then gain experience throughout their career and may then undertake a leadership role. Anecdotally, however, in Montessori settings, leaders have been employed in the past with no teaching experience or Montessori training and additionally Montessori trainers of adults with no Montessori training (AMI, 2021). With the establishment of both the National Professional Standards for Teachers and the Australian Professional Standards for Principals (AITSL, 2021) the future employment of an educational leader with no teaching experience seems unlikely. However, leaders of Montessori settings with no Montessori training appears to continue.

The Australian Government has also introduced initiatives such as the NSW Public School Leadership and Management Credential with 18 online modules and the Leadership Development Initiative for mentors and mentees (NSW DESE, 2020). Australian Government initiatives were instigated to raise the education quality for children through raising the teaching quality and leadership quality in all settings. Additionally, Australian

Independent Schools offer the Leadership Centre Flagship Program, which is aimed at skilled experienced leaders in schools, while many universities also offer Master of Educational Leadership Courses. There is, however, no requirement that leaders of Montessori schools complete any leadership training, they gain their leadership employment from the volunteer parent board in many cases.

Montessori leadership courses are offered by MI (Appendix 1). The course's focus appears to be to provide a general understanding of the principles and practices of the Montessori approach. Data reveal 20 leaders since 2015 have participated in this course. An AMI School Administrators Certificate Course is due to take place in Sydney in late 2021 which is publicised as "a comprehensive administrators' training" although "no prerequisites or qualifications are necessary" for participants (AMI, 2021). Additionally, AMI later wrote, "since January 2021, several trainers-in-training have either achieved auxiliary status or become full trainers on different levels" (AMI Newsletter, 2021). Table 12 outlines the trainers, whether they are training teachers or leaders and their qualifications.

Country	Trainer of Teachers/ Administrators/Leaders	Qualifications (Linkin)
Australia	AMI Administrator Trainer	BA Science, Master Business Empathy
Australia	AMI Administrator Trainer	Dip of Ed, Diploma of Business, Wedding Celebrant
China	AMI 0-3 Teacher Trainer	BA Education, **AMI 0-3 Diploma**
France	AMI Administrator Trainer	Master of Science, Master of Urban Development
Germany/ Russia	AMI 3-6 Teacher Trainer	BA Teaching, **AMI 3-6 Diploma**
India	AMI 6-12 Teacher Trainer	BA Commerce, BEd, **AMI 3-6 & 6-12 Diploma.**
Netherlands	AMI 6-12 Teacher Trainer	BA Teaching, **AMI 3-6 & 6-12 Diplomas**
Spain	AMI 6-12 Teacher Trainer	BA Education Psychology, Diploma of Elementary Education, **AMI 3-6 & 6-12 Diploma**
UK	AMI 3-6 Teacher Trainer	BA Arts, Master of Childhood Ed, **AMI 0-3, 3-6 & 6-12 Diplomas.**
USA	AMI Administrator Trainer	BA Sociology.
USA	AMI Administrator Trainer	BA Arts, Master of English
USA	AMI Administrator Trainer	BA English, BA Psychology, Master of Education, **AMI 3-6 Diploma, AMI Trainer of Teachers**
USA	AMI Administrator Trainer	**AMI 3-6 Diploma**

Table 12: AMI Trainer of Teachers or Administrators (AMI, 2021)

It is interesting to note that out of the six trainers of teachers all have gained at least one Montessori diploma. However, the trainers of leaders (administrators) it appears that only two of the six new trainers have gained Montessori training. In addition, becoming an AMI Trainer of Teachers requires between 2 to 4 years of intensive and specific training working closely with experienced Montessori trainers (AMI, 2002, p. 19). Ann Dunne reflected on her Trainers of Training experience saying,

> "*I have come to enjoy the research element of the work, and appreciate how vital this element has been for greater depth of understanding of the Montessori philosophy… every single time I had to go back to the books by Dr Montessori and look for her views; would I have done that were it not necessary and part of what I needed to do?*" (AMI, 2000, p. 39).

No information publicly exists for what is required to receive a Training of Administrator qualification, but it clearly does not include Montessori training.

3.6 Females in Leadership

Educators, students, and the community maintain perceptions that educational leadership is a male domain (Whitehead, Andretzke & Binali, 2018). In 2013, female principals made up 32.6 per cent in Lutheran schools in the world. Andretzke (2014) found that while they had young children some Australian female leaders did not apply for leadership positions. Researchers have found that females' paid employment has not resulted in men taking more responsibility at home for domestic chores (Whitehead, Andretzke & Binali, 2018). The average Australian man does half as much unpaid domestic and caring work as females. In Malawi and Australia females are generally working two days in one day (Coleman 2007; Strachan, Akao, Kilavanwa & Warsal 2010; Whitehead, 2013), from when they began as educators and worked their way up the leadership ladder. Females do not challenge the inequity of this situations as they do not have sufficient numbers to act collectively (Whitehead, Andretzke & Binali, 2018).

Researchers (Krumm & Gates, 2000) conducted a descriptive analysis to determine gender differences and leadership styles between female and male principals and concluded that female leaders appear to be superior to male principals in leadership adaptability and prioritise relationships with all stakeholders. The majority of male and female principals

were found to "possess high-task behaviour and high relationship behaviour as their primary leadership styles," (p. 20), and females selected more appropriate leadership behaviours than male principals. to prioritize relationship with all stakeholders. Fink and Polnick (2005) state that “female principals have distinct advantages in their roles as school executives because of their humanistic and collaborative leadership” (p. 35).

Females and leadership have been written about by many researchers (Adair 1989; Bass & Riggio, 2006; Baxter, 2010; Blackmore, 2013; Rhode, 2003; Stead & Elliott, 2009; Yukl, 2010). An increasing number of publications specialising in female leadership have been found (Baxter, 2010), but a scarcity of essential work remains on females’ experiences of leadership (Stead & Elliott, 2009). According to Bass and Riggio (2006), researchers are keen to understand whether men and women lead differently. Baxter (2010) explores the reasons for the underrepresentation of females in leadership and identified strategies for change. As the proportion of females in leadership grows, work-life practices must be reviewed (Kalysh, Kulik & Perera, 2016). Blackmore (2013) claims researchers have overlooked the impact of motherhood on the leadership style of females. Montessori is a recognised leader over 100 years after her drive and commitment to children’s development commenced. When Montessori became pregnant, she did not marry, as in those times married women were unable to continue careers, she went to great lengths to keep the father’s name secret, remain single, placing her son in foster care (Gunderman, 2020).

Nixon and Sinclair (2017) state that females in leadership roles experience high visibility and scrutiny, especially their bodies, and this scrutiny is often used to cast doubt on or undermine the quality of their leadership. When Julia Gillard was Prime Minister of Australia, she said that she was subjected to an orchestrated media campaign designed to ridicule her as a woman and undermine her qualifications for leadership. The media the author’s claim is complicit in making men look more leader-like. These portrayals make most women’s paths in leadership more difficult (Nixon & Sinclair, 2017).

Female leaders in history demonstrate the ability to combine courage with a practicality and ability to see and use the opportunities at hand to influence, as opposed to waiting to mobilise change through or from formal positions of authority (Nixon & Sinclair, 2017). Female leaders who work in communities and groups, regularly demonstrate openness and a desire to promote diversity in the people they work alongside.

The leadership of indigenous women around the world against traditional, patriarchal, and colonial authorities has only recently begun to be recognised and recorded (Nixon & Sinclair, 2017). 'Talking circles' in many cultural and global contexts is where females have a voice and a form of governance. The leadership principles espoused within the talking circles are that if you want people to listen to you, you must listen to them; if you hope people will change how they live, you have to know how they live; and if you want people to see you, you have to sit down with them eye to eye (Nixon & Sinclair, 2017). Challenges for indigenous females "can be experienced in terms of decision-making power, respect and recognition of women's voices, leadership and capabilities, how resources are allocated to women and men, and ensuring that processes and structures are designed to overcome structural barriers to women's participation" (Reconciliation Australia, 2021, p. 1).

Chapters two and three have highlighted the topics that are the basis of the conceptual framework of this proposal, shown in Figure 7. An Australian study conducted with Montessori alumni participants found that,

> "…*you must have earned the right to be considered a Montessori leader. This is achieved through your experiences working in Montessori settings at the grassroots level, such as gaining Montessori training, years of experience in Montessori classrooms which develops the courage to continually stand up for the child…. every single day*" (Beresford-Jones, 2020, p. 8).

Additionally, the research emphasised a person's motivation to lead a Montessori setting. Developing this concept further as part of this current study on Montessori leadership, the shaping of a term has been finalised to explain this construct - *individual intent*. A brief definition of *individual intent* is whether Montessori leaders would choose the actions they take when no one is watching. Do they act humbly for selfless reasons? Do they have the courage to genuinely place their educational community's needs above their own? Are they genuine individuals? Brown (2019) sums up leadership as - who we are is how we lead. Caldwell (2016) echoes this sentiment stating that leaders need structural autonomy where they have and do not have discretion to make their own decisions and professional autonomy for educational leaders to make the right decisions. Moreover, Collins (2007) refers to these type of leaders as 'Level 5' clarifying that such leaders work and dedicate themselves to something bigger than themselves, humbly playing a part.

Figure 7: Conceptual Framework of Study

Brown (2017) also indicates that leader's need courage, stating that true belonging does not require us to 'change' who we are but require us to 'be' who we are. Additionally, Brown (2019) highlighted that a leader is anyone who takes responsibility for finding potential in people and processes and has the courage to develop that potential. The world needs leaders who are committed to courageous, wholehearted leadership, who are self-aware enough to lead from their hearts. She defined courage as a collection of particular skill sets – 'rumbling with vulnerability', living into our values, braving trust and learning to rise (Brown, 2019).

There is little empirical data-driven research in this field, and none carried out in Australia of Montessori's original design of her approach to education, current implementation of a Montessori approach to leadership, and principles and practices of Montessori philosophy. Moreover, Montessori leaders and educators do have the capability to provide a valuable perspective on how contemporary leaders embody a Montessori approach in Australian settings.

3.7 What Influences the Leaders and Quality of Education?

There are various umbrella organisations (Appendix 9), both internal and external,

that support and oversee Montessori schools and centres and have a powerful influence on leaders. Therefore, contemporary leaders of Montessori settings are influenced by a variety of factors. These factors include Montessori's own views and the perspectives of stakeholders (families, staff, board members). Additionally, external organisations such as ACECQA for early childhood settings, or the Department of Education for school settings. Montessori Schools and Centres of Australia (MSCA) supports Montessori settings and has a passion and vision to unite and serve the Montessori community. The Australian Independent Schools (AIS) is an organisation that schools pay a membership to and receive advice, consultancy associated with legal requirements around running independent schools.

A study in the UK found that the influence of managerial expertise on boards is concerning as the voluntary nature of early childhood management committees can make decision making difficult and slow (Young, 2015). Additionally, good school boards can demonstrate strong support of the leader and Montessori education as Christensen (2016) found in her study,

> *"The board was hoping to revitalise the school's use of Montessori practices, so it specifically sought these traits in candidates. Therefore, the leader was hired not only to work with the children, but also to guide the school community—including many children, parents, and long-time staff—toward a more authentic use of the Montessori Method…the school board also sent out a call for a trained and experienced Montessorian to join the board of directors"* (Christensen, 2016, p. 39).

However, Leithwood and Jantzi (2008) found that some organisations supporting leaders can have a weakening effect on how useful the leader is to the school.

3.7.1 Montessori Associations and Training Courses

There are many Montessori associations around the world whose main role maybe to provide training, support the development of Montessori programs, encourage research, organise conferences, and provide mentoring and professional development. They also aim to be the collective voice of Montessori settings for when Montessori education may approach government departments to influence national policies and practice. These Montessori associations include: Association Montessori Internationale (AMI), American Montessori Society (AMS), Canadian Council of Montessori Administrators (CCMA), The

Indian Montessori Association (IMA), Montessori Europe (ME), Pan American Montessori Association (PAMA), The Montessori Foundation (MF), and the Montessori Institute (MI). Associations within Australia include MI and Montessori Schools and Centres of Australia (MSCA).

AMI is an international organisation established in 1929 by Maria and Mario Montessori for members who wanted to implement the original approach used by Montessori. Maria and Mario Montessori envisaged a high Montessori standard being maintained after their deaths. Of course, this would be reliant on the AMI board members knowledge, understanding or training in Montessori and the decisions being made to keep that standard high. In Australia, ongoing concerns centered on the leaders of the national AMI association, Montessori Australia Foundation (MAF). Over a number of years, MAF's leadership has struggled, and during 2019 the organisation went into liquidation with "the investigations focused on… identifying potential voidable transactions, insolvent trading and director's duties… and finding expressions of interest to sell the business and assets…" (Grant Thornton Australia Limited, 2019, p.9). MAF was sold to a private individual in November 2019 and renamed Montessori Australia (MA). Since the 1970s Australia has had an affiliate AMI association that has organised intermittent AMI training courses which provide certificate and diploma level Montessori teacher training courses. Once the diploma has been completed these educators are able to run a Montessori setting, for example, Sydney Montessori Training Centre (SMTC), established 2018, provides AMI training at birth to three, three to six and six to twelve teaching levels.

The Montessori Institute (MI) (formerly MWEI) is a national organisation established in 1983 by Beth Alcorn (MI, 2020). Alcorn had the support of both Margaret Homfray and Phoebe Child. In the UK and the USA both Child and Homfray had trained with Maria Montessori and worked with her in translating lectures and setting up training centres. Montessori Institute in Australia is a training provider which maintains its connections with the UK and the USA and carries out a mix of face to face and online training. Similarly, to AMI, once the completed Montessori diploma has been gained the educators are able to run a Montessori setting. MI are, at the time of conducting this study, the only providers of a Montessori leadership course in Australia.

Table 13 displays the total of both Montessori teacher training and leadership training courses of AMI and MWEI (MI) offered between 2015 and 2018 and how many participants attended the training.

Year	# Montessori diploma course [# Teachers trained]		# Leadership courses	
	AMI	MI (MWEI)	AMI	MI (MWEI)
2015	4 [27]	5 [216]	0	1 [5]
2016	2 [32]	5 [193]	0	1 [8]
2017	4 [40]	5 [212]	0	1 [7]
2018	1 [14]	5 [212]		
Total	11 [113]	15 [833]	0	3 [20]
	# Courses [# Participants]	# Courses [# Participants]	# Courses [# Participants]	

Table 13: Number of participants in AMI or MI Montessori training between 2015-18

MSCA, established in 2019, states that it has a mission to advance education by promoting the pedagogical principles and practice formulated by Montessori for the full development of the human being (MSCA, 2021). MSCA aim to unite and serve the Montessori community in its endeavour to educate for peace. MSCA's objectives include supporting and encouraging the establishment and sustainability of bodies delivering Montessori education and programs to ensure more children have access to Montessori education in Australia. In addition, the organisation represents the collective interests of members to Government at all levels, other regulatory bodies, other relevant peak bodies, media, and the public. MSCA provide a wide range of professional development, not just for educators, but board members, leaders and business managers and information for families.

Other examples of Montessori training that can be utilised come from online companies, such as, the North American Montessori Centre (NAMC). The differences associated with the training centres and organisations providing Montessori training are detailed in Appendix 1.

Notably only a few organisations internationally and MI in Australia however, run courses or professional development for leaders of Montessori settings. Due to the shortage of Montessori leadership and professional development opportunities in Australia,

Montessori leaders may undertake leadership training internationally, if at all. Examples of Montessori training and professional development include the Czech Republic AMI affiliate which runs a two-day international Montessori Leadership Congress in November each year, and the first AMS Emerging Leaders Fellowship Program began in 2020 in the USA. An established leadership program in Australia is the MI leadership course which develops leadership skills and a general understanding of the key principles of Montessori. The Montessori Foundation in the USA has run programs for leaders since 2006. In the USA Montessori principals and leaders have a large support network through the Montessori Administrators Association (MAA). Members of this Google group are Montessori leaders and are provided with resources and mentoring on request and through online discussions. In Australia there are informal leadership network groups, such as NSW Montessori principals' meetings which are held each school term.

3.8 Montessori Leadership and Traditional Leadership

Supporting the qualified Montessori educator, trained at the correct level (Montessori, 1967/1992) and leading the learning in each classroom is part of the role of a Montessori leader. The educator establishes and maintains the prepared environment, the discipline within the class, directs the assistants and can ask for extra support when deemed necessary. Following the thread from Fullan (2010) of leaders emerging from the ranks of educators in the community, therefore leaders would previously have been Montessori educators who have gained a deep knowledge of how and why Montessori works. Successful Montessori school leadership helps promote a culture of commitment, rather than simply compliance from staff. The children and their developmental needs are the priority (Montessori, 1967/1992).

Current teaching, learning and care practices in Australia occur in a variety of early childhood settings, such as long day care centres and preschools, public, Catholic and Independent Schools. Montessori early childhood settings that are part of a Montessori primary school are all part of the same educational institution which are classified as Independent Schools. Data reveals that Montessori in Australia has not increased its 485 classrooms from 2004 to 2017. What has changed, however, is the distribution of the type of classrooms. Figures show that there is now more birth to six-year classrooms being established while many primary classrooms have been closed (Table 1).

Many aspects about leadership are consistent regardless of the educational context in which a leader is placed. For instance, all settings adhere to ACECQA and DESE authority including teacher accreditation, staff to child ratios, health and safety and leaders need to ensure that regulations are implemented to be compliant and remain registered. All leaders also manage the daily operations of the centre or school (Connolly, James & Fertig, 2017). A quality leader in education responds to social, cultural, economic, and political changes (Rodd, 2013). They inspire, motivate, and extend educators and children and share a vision and their values, they communicate shared goals through strong social and interpersonal skills (Cambridge Training, 2017). All leaders reflect on the current situation and plan strategically for the next steps. Effective leadership and quality education are both terms that are subjective and open to interpretation (Dahlberg, Moss & Pence, 2008).

All educational leaders need to develop genuine family and community partnerships and be part of an authentic team along with staff (Cambridge, 2017; Waniganayake, Rodd & Gibbs, 2015). Leaders need to find a balance between leading and managing. All leaders can ensure their setting is a beautiful environment, with the children carrying out different kinds of work and where the children are relaxed, happy, and have a sense of purpose. Leaders should demonstrate behaviours that are authentic and altruistic and give support and encouragement while they work with their educators (Waniganayake, Rodd & Gibbs, 2015).

The literature review in this thesis statement has sought to understand the impact of leadership on quality education in Montessori settings. Clarifying that leadership does influence and impact all areas of their settings, including student outcomes, staff retention, satisfaction and development, and parents' engagement. Quality provision, it has been shown, happens through leadership being active, effective, and knowledgeable. Outstanding leaders know that educator quality helps determine the quality of the setting, if they hire and retain great vocational educators, they have the opportunity of a high-quality setting. Successful leaders are not born, but nurtured, therefore, the significance of educational settings being successful, rests with the development of a leadership team. Models of leadership drawn from the literature clarify which ones a Montessori leader would utilise, including servant, distributed, ethical, transformational, and instructional. The study demonstrates that Montessori settings consist of distinctive teaching and learning classrooms. Montessori educators have, within their depth of practice, the potential to develop into leaders of these settings. The training and characteristics of leaders are revealed

with Montessori leaders differing from other leaders through the need for a greater emphasis on morals, respect, humility, altruism, serving the child, role modelling and a good understanding of Montessori education. In Australia structured mentoring of Montessori leaders is not prevalent, although AITSL recommends to "provide a basis for coaching and mentoring of aspirant principals" (AITSL, 2021, p. 31). The review additionally highlights the main organisations that influence leaders running Montessori environments.

The review demonstrates there are several barriers to a Montessori leadership approach including the absence of an agreed setting-wide code of practice and educational leadership structure in Montessori settings. In Australia there is a scarcity of Montessori leadership training programs. Additionally, there are no measurable and constructive quality assurance programs, which would provide an understanding of quality and improvements individual settings can strive for. The limited existing research in the Montessori field can be rather Montessori-centric and may not encapsulate current research. For example, Bennetts (2017) based her thesis on interviews with 14 Montessori AMI trained USA leaders, therefore a drawback of the study is the fact it only involved AMI trained leaders, and yet many of the leaders in Montessori schools are not Montessori trained.

Chapter 4: Research Design and Methodology

"The child is the constructor of man, and so of society. The child is endowed with an inner power which can guide us to a more enlightened future. Education should no longer be mostly imparting of knowledge, but must take a new path, seeking the release of human potentials."
(Montessori, 1946/1989, p. 1)

"Leadership begins with you … It is unlikely that you will be able to inspire, arouse, excite and motivate others unless you can show who you are, what you stand for, and what you can and cannot do." (ACECQA, Goffee & Jones, 2006)

4.1 Epistemological View and Study's Paradigm

Colgan (2016) maintains that Montessori herself held an objective position on epistemology and she held that knowledge was hierarchical, this helped conceptualise learning for children as experiences were organised, clear and connected with relevant gained knowledge. Montessori did not believe that humans were born with innate ideas but rather understood their surrounding world through developing of their senses.

All research is founded on the development of knowledge using some basic assumptions of philosophy (Kitchener, 2002). Yunkaporta (2019) points out that from an Indigenous perspective "the arrow of time proposed" (p. 56) for scientific studies is a "real, observable phenomenon in closed systems" but he argues it is the wrong to apply this to "beings living in open, interconnected systems". Philosophical, or ontological and epistemological standpoints, demonstrate a person's view of the world. Some world views are constructivist, pragmatist and objectivist and this study does make use of complementary elements from different views. Western systems of thoughts have not focused on ways of being but too much on ways of knowing (Yunkaporta, 2019). He argues this causes a lot of "Indigenous Knowledge to be lost in theory rather than being embedded in daily life" (p. 69). The researcher's ontological position is not that reality is independent of the knowledge gained but that humans participate in the construction of that reality and knowledge. As a pragmatist the researcher contends that most philosophical topics are best viewed in terms of their practical uses and successes, through questioning and evaluating beliefs and ideas with their practical function in mind. The researcher's epistemological beliefs have developed through the researchers' own experiences, level of education, age and context (Kitchener, 2002). The researcher's stance towards the nature of knowledge means the study relies on

the ‘participants’ views of the situation being studied’ (Creswell, 2003, p. 8). The research method implemented is a step-by-step plan of action that has given the study direction, enabling the research to be conducted systematically. Epistemologically, pragmatism focuses on real-world issues. Methodologically, pragmatic researchers are well equipped to deal with varied outcomes to actions. As Cordeiro and Kelly (2019) state pragmatism can be utilised to support unlocking the process of organisational action and change – in this case measuring leadership. Engaging with the same phenomena (Montessori leadership approach) via multiple experiences and linking experiences with actions of leaders (saying what they do) to educator’s views (on what is actually done by leaders) is the most relevant to this study. The research paradigm mirrors their understanding and beliefs about how they want to live and the world they live in (Kuhn, 1962).

4.2 Research Design

The research question, ‘Montessori leadership philosophy re-examined and its influence on education quality as embodied in contemporary Montessori settings’ was studied through a mixed-methods approach to gain perspectives from stakeholders, leaders and educators. Additionally, there are no existing measurement scales on the Montessori leadership approach. The study’s findings will aim to support development and validating measures using the *keystone* elements of Montessori education and philosophy.

The research strategy utilised was a questionnaire to educators and leaders in Montessori settings across Australia. A cross-sectional approach was applied to the study through collecting data at a single point in time from educators and leaders (Thornhill, Saunders & Lewis, 2009). The mixed methods approach brought significant enhancement to the study and enriched the researcher’s interpretations of data. The study is being undertaken as a pragmatic model, to enable the researcher flexibility in what techniques to apply to investigate the research problem and to utilise both qualitative and quantitative research. Historically pragmatism was developed in America by Peirce (1839–1914), James (1842–1910) and Dewey (1859–1952) (Cherryholmes, 1992). Researchers of pragmatic studies focus on the researcher making decisions on a real-world issue. The study therefore utilised an inductive strategy to start the project. The research aimed to develop findings that offer a practical solution to the research problem. The research problem occurs through leaders’

inconsistent approaches in Montessori settings, fluctuating quality and not supporting and implementing Montessori philosophy and practice.

Conceptualising the essential concepts in the research question requires an unambiguous definition of 'Montessori leadership philosophy', what is meant by both 'contemporary' and 'perspective' and what is understood by 'Montessori education.' Meanwhile measuring or operationalising these concepts could be achieved by dividing the perspectives over two categories of people, the educators, and the leaders. The researcher's aim is to answer the research questions through comparing the perspectives of each group with *keystone* elements of Montessori philosophy and practice. By creating a measurement based on the elements and the underpinning theories, data collected can be operationalised.

4.3 Sampling and Participants

The sampling process (Robson & McCartan, 2016) for the questionnaire included a population of leaders and educators in Montessori settings in Australia. The main stakeholders of leaders were approached via email and were designated with forwarding the questionnaire onto educators in their setting. The sampling frame is drawn from ACECQA's list of 'Montessori' settings (ACECQA, 2021) to strike a balance between depth and breadth of data which will be manageable within the confines of the study. There were a very small proportion of participants the researcher has a pre-existing relationship with. To lessen this bias, therefore, all educators and leaders in all settings were included as participants and all identities were concealed from the researcher. The participants being included in the study do not need specific ethical considerations.

Purposive nonprobability sampling was utilised to gain plenty of the most appropriate data (Yin, 2002). Through hearing from educators as well as the leader of the setting, a broader range of data was examined. The sample in this study was representative of the characteristics of the wider Montessori community and generalisability. Participants will not receive payment for their contribution however the participants will know they have contributed to informing Montessori research. The questionnaire was also posted on various Facebook Group sites, AtoI Professionals, 3-6 Montessori Group and 6-12 Alumni Group. In addition, an information form explaining the project (Appendix 2) was attached to the email to provide more information. The questionnaire sample size is N=264 Montessori settings.

Potential risks for the research and participants of the study could include physical discomfort, producing negative psychological states, socially through examining work relationships; economic via payment to subjects or damage to employability for participating in the research; confidentiality is assumed and maintained by researcher and legalities if conduct is engaged in that is illegal. Minimising these potential risks include collecting only essential information on the participants, coding personal information early in the project and secure storage.

The triangulation method was used in this study. Triangulation method is the collection of data from multiple sources of information to enhance the credibility of a study through cross referencing more than one source (Stringer, 2007). The theory behind triangulation is that by implementing this approach findings can be supported by different participants and gives the opportunity to control some of the influences affecting the results. Different views were collected on quality leadership from the sources being utilised in this study, leaders, and educators. By using the triangulation approach the research gains a deep understanding of the phenomenon being investigated (Denzin & Lincoln, 2008).

4.4 Pilot Study

A pilot study was conducted to test the data collection and analysis protocol stated in this study. Alumni Montessorians assisted in testing the study process and design and helped in determining the projects feasibility. Furthermore, the pilot study gave the researcher an opportunity to practice and verify the instruments being utilised. Similarly, the findings helped guide the methodology and enhanced the process by minimising unforeseen events. The pilot study reflections underlined some issues encountered which were circumvented when conducting this study's data collection. Therefore, much of the focus of the pilot study was on the reliability of the tools and their functionality (Nissan & Schedl, 2013). Additionally, testing the reliability and validity of the research instrument (questionnaire).

4.5 Data Collection

Mixed methods were utilised for data collection through sampling and the questionnaire. The main type of data collected was scale measurements and narratives of

stakeholder perspectives. Access to the data collected is limited to the researcher (questionnaire). The data is unidentifiable, and data will be stored in cloud storage.

The questionnaire consisted of questions requesting participant information in addition to the core questions to be answered. The questions were text entry (for participants to elaborate) and Likert scale (Appendix 3). When writing questions for the study the aim was to keep the language simple, the questions short, avoiding double-barrelled or leading questions, and making sure that the questions mean the same to all participants (Robson, 2011). The questionnaire questions included collecting participant information on gender, age range, years of experience in Australia and educational background.

- question 1-7 collect participant specific data.
- question 8-13 collect data regarding the quality.
- question 14-23 collects data on how leaders act and what influences their implementation of Montessori.

The researcher when selecting cases for the study used two specific criteria. Firstly, the setting must be a named as a Montessori setting, and secondly, the setting is in Australia.

4.6 Data Analysis and Interpretation

In the study the data analysis process identified how leadership is enacted in Montessori educational settings and what influences education quality. The questionnaire's design and distribution were supported by Google Forms and email distribution. The participants were given two weeks to respond with a reminder email being sent at the end of the first week. The total participants response time did not exceed three weeks. The researcher collated the collected data responses.

The analysis searched for coding, patterns, consistent themes and data reduction in the data collected. The process of locating key words and themes and developing a matrix clearly drew conclusions. The method of data analysis for the qualitative data followed Clarke & Braun's (2013) framework identifying the 'six phases of thematic analyses' for qualitative data patterns to be detected and analysed. Thematic analysis can be employed across a variety of theoretical frameworks. The six phases of thematic analysis are:

1. Data familiarisation through reading collected data.
2. Coding describing language and jargon used and collating any other data items.
3. Locating themes related to the research question and comparing with coded data.
4. Reviewing themes to check that in connection with the coded extracts and other data the themes work.
5. Defining and naming themes by a comprehensive analysis of the core of each theme.
6. Final written results describing the data and analysed narrative and placing it in relation to existing literature in this field.

A data management plan was developed covering the areas of compliance, a description of the data and how data was gathered. The plan included storage arrangements and control of access to the data and stated what documentation accompanied the data. Data management information detailed archiving, sharing and reviewing the data management plan as the project progressed.

4.7 Findings

Over the three-week period the questionnaire was open to respondents, 10.3% participated in the study. A possible reason for the low participation rate is that it relied on the leader of each setting to forward the questionnaire to educators. No Montessori educators contact list exists in Australia. The largest number of respondents had been in Montessori for either 20+ years or were new to Montessori with under five years of experience.

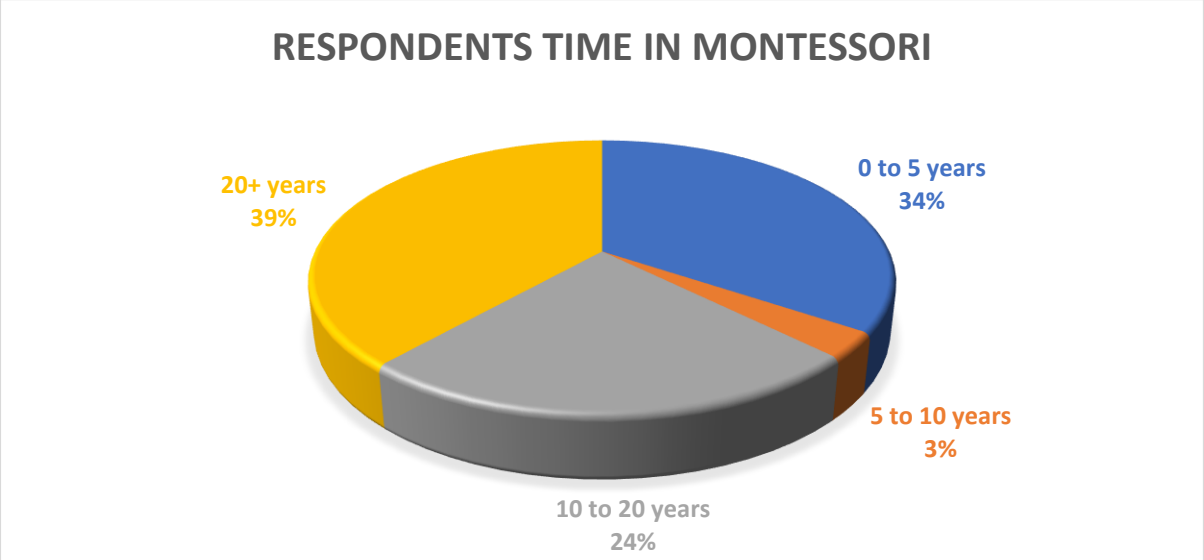


Figure 8: Participants experience in Montessori

The main age group that leaders were trained in was three to six (41%) and next most were birth to three age group (24%).

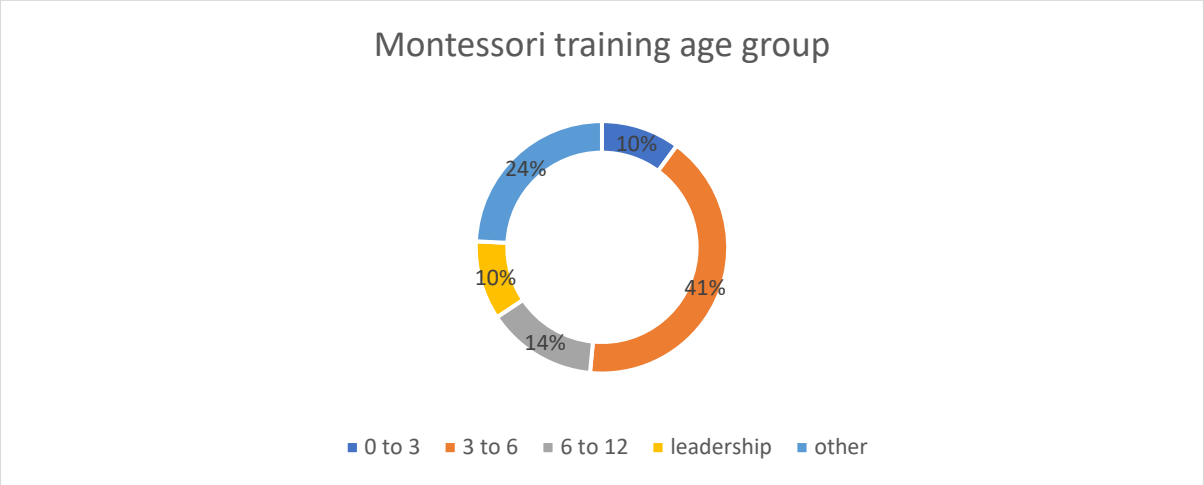


Figure 9: Participants Montessori qualifications

Participants held other qualifications including 67% of leaders holding a 'Master', trainers' 100%, coordinators/deputies' 28%. In addition, 44% of educators had gained a degree. Furthermore, 79% of respondents had previously been in a leadership position.

The participants comprised of leaders, deputies and coordinators (42%), educators (34%), trainers (7%) and consultants (7%).

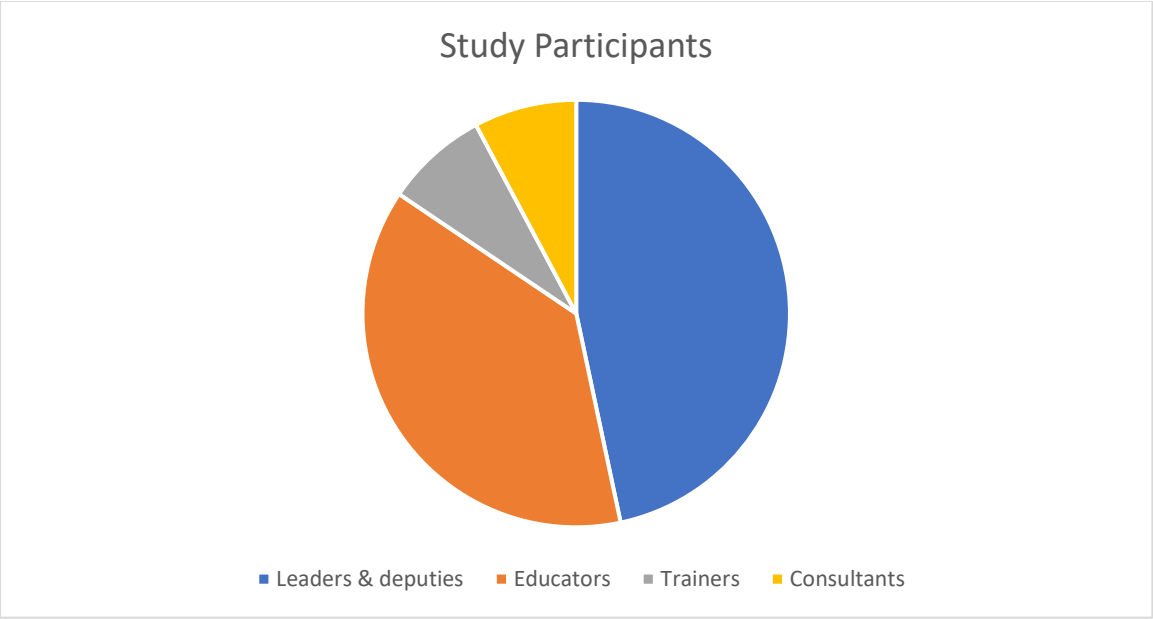


Figure 10: Participants by role

The participants were asked about how much quality Montessori education relies on aspects of Montessori philosophy and practice including the educators, the prepared environment, balanced mixed age groups, planning, reflecting, and assessing children. The responses reveal that leaders consider educators the highest factor for quality Montessori education (97%) and lowest factor for quality are balanced mixed age groups (91%). Educator's highest quality education factor were both themselves and planning, reflecting, and assessing children (88%) with balanced mixed age groups rated the lowest (77%). Coordinators and deputy leaders stated that planning, reflecting, and assessing children is the most important quality aspect in settings (98%) and educators and prepared environment (both 96%). Montessori trainers identified planning, reflecting, and assessing children the highest (100%) and both the prepared environment and balanced mixed age groups (90%). Montessori consultants and administration staff rated all areas for quality as equally important (100%). Overall, from all participants planning, reflecting, and assessing children (96%), educators (95%), prepared environment (92%) and balanced mixed age groups rated the lowest (91%) (Table 14).

	Educators	**Prepared environment**	**Balanced mixed age groups**	**Plan, reflect & assess children**
Leader	97%	94%	91%	94%
Educator	88%	81%	77%	88%
Coordinator/deputy	96%	96%	97%	98%
Trainer	95%	90%	90%	100%
Consultant/admin	100%	100%	100%	100%
Average	**95%**	**92%**	**91%**	**96%**

Table 14: Importance of particular aspects of Montessori philosophy and practice

Furthermore, how much government compliance affects Montessori leadership enactment in settings was answered by the participants. Consultants and administration stated compliance has the largest influence on Montessori leadership (100%). Educators rated compliance influence (73%), with trainers rating compliance influence (69%) and

deputy and coordinators rating the influence (65%). In comparison Montessori leaders stated that government compliance affected their leadership much lower (44%).

	Government influencing leadership
Leader	44%
Educator	73%
Coordinator/deputy	65%
Trainer	69%
Consultant/admin	100%
Average	**70%**

Table 15: Government Compliance Influencing Montessori Leaders

Interestingly, when comparing consultants and administration staff there is a 66% difference in how much government compliance is perceived as affecting leaders, compared to leader's perception of compliance issues. The average affect was rated at 70% influence by government regulations and compliance in Montessori settings.

4.8 Bias, Transparency and Establishing Rigor.

Limitations to the study include the final number of participants (10.9%) who contributed to the study. Additionally, the lack of previous studies in this field as well as possible conflicts arising from bias. To minimise bias and gauge transparency, the researcher utilised a questionnaire and triangulation. Triangulation is the collection of data from multiple sources (leaders, educators) to enhance the credibility of a study through cross referencing more than one source (Stringer, 2007). The researcher has been involved in Montessori for over 30 years bringing unique value and perspective to the study. Consequently, to assist with a high level of transparency, the researcher reflected critically on their preconceptions on Montessori and their focus when analysing results. The researcher aimed to use an evidence-based lens, keep responses truly confidential to mitigate social desirability bias effects, and develop balanced questions. In addition, the researcher has not applied for funding or is being influenced by organisations and all findings regardless of outcomes can be published.

"Rigor refers to the extent in which researchers work to enhance the quality of their studies" (Heale & Twycross, 2015, p. 66). The research project has aimed to be credible by presenting a faithful description of the study in order that other researchers and those interested in the study can identify the research aim easily (Guba & Lincoln, 1989). Additionally, the study has aimed for dependability as comparable conclusions could be reached by another if they used a similar situation, data, and perspective (Koch, 2006).

The study is contextual with Montessori settings within Australia being contacted for their perceptions. The stakeholder's perceptions contribute to an understanding of the phenomenon of leadership in Montessori settings. The research design is logical, practical and through the experience of the researcher achieves the objectives of the thesis statements.

4.9 Ethical Considerations

Montessori did not use the term 'ethics' but she did stipulate the type of 'new teachers' that "must acquire a moral alertness which has not hitherto been demanded by any other system." (Montessori, 1913/1965, p. 151). Montessori also stated that adults should take the greatest care to be 'sincere'. The research design incorporates many of the questions in Australian ethics application for projects. The participants were informed of the study, the aims, methods and how the collected data will be used. The data collected has been secured, confidential and anonymous by removing identifiers and using pseudonyms. The participants were informed that they could decline to participate in the study or decline answering a specific question.

Ethical considerations for the research study are underpinned by:

- doing no harm and have respect for all participants,
- participation confidentiality,
- intellectual honesty and trust in undertaking and reporting research including transparency of any conflicts of interest,
- interactions are fair and collegial with sharing with other researchers any resources,
- data management plan is developed to ensure security, privacy, secure storage,
- following data protection laws.

4.10 Study's Development Timeline

As with any thesis type of study the time invested in the process takes not just weeks and months but years, and this study has been no exception. The study has surmounted various obstacles including the researcher moving interstate leading to changes in universities and supervisors.

February 2018 to December 2020

Development of proposal and study to be conducted. Critical feedback and peer review achieved which developed writing and presentation skills. Pilot study included examining the feasibility of the approach, recruitment, data collection and analysis procedures. Qualitative methods were proposed for data collection through sampling and questionnaire. The study followed a deductive approach. The pilot study aimed to identify any modifications needed in the design of the project. The findings helped guide the methodology and enhance the process by minimising unforeseen events. Developing of ethical guidelines and considerations and ensure the rights and welfare of participants in the study. Researching and understanding the National Statement on Ethical Conduct in Human Research and the Human Research Ethics Manual was part of this process.

February 2021 to March 2021

Organise, develop and distribute participants invites to the questionnaire. Including providing the participation information explaining the project. The questionnaire's design and distribution were supported by Google Forms and email.

March 2021 to June 2021

Transcribe and analyse questionnaire data. Judgements can occur around data interpretation and representation and the level of detail required. Finish transcribing and analysing data. The analysis will reduce the data, select significant data and search for coding, patterns and consistent themes. Analysing the data includes reading and annotating the texts, conceptualise and segment the data, and analyse of the segments and write up the results. Extended the literature review as the researcher may locate and evaluate more relevant literature.

July 2021 to August 2021

Peer review and editing to produce final thesis statement and report on data. The report aims to ascertain the links between the research questions and emerging patterns from the data collected. These links can then be related to any established research and theory and will clarify the study's contribution to the body of research in this field. Draft the final report. Including the main structure, research aims, research questions, the theoretical framework and research methods. Highlighting the connections, interpretation, and implications of findings in relation to the research question. The discussion demonstrates findings in relation to research in the field.

Chapter 5: Reporting the Findings

"All humanity that works for the common good, even though it may be unaware of it, is creating the new world that must be the world of peace."
(Montessori, 1949/1992, p. 115)

"Those who direct others must themselves be transformed. No one can ever be a leader or a guide who has not prepared for that work" (Montessori, 1949/1984)

"Being a great leader requires a constant focus on self-improvement and professional growth." (AITSL, 2021)

"*Leaders should expose their insecurities and use them to their advantage, rather than trying to pretend they don't have any*."
(Gonski, Arcus, Boston, Gould, Johnson, O'Brien, & Roberts, 2018)

5.1 Findings Overview

The thesis statement begins with an overview of the study and Montessori in Australia revealing what age groups comprise classrooms in Australia. Through presenting the research questions, together with the origins of Montessori education, approach, and philosophy the reader gained a good understanding of Montessori's theory of child development within other educational theories. The government regulations of educational settings were illustrated, and quality assurance issues examined. Chapter two reviewed current literature on a Montessori approach to leadership and quality. Additionally, the chapter defined quality in early childhood, school and Montessori settings and a leaders' impact on student outcomes, educators, and families in those settings. Furthermore, Montessori's position on the implementation of her approach was investigated. The next chapter examined leadership theories and characteristics, the research demonstrated features of effective leaders in addition to where potential leaders might be located and developed. Moreover, the chapter outlined Montessori Associations and training in Australia and internationally. Chapter four outlined the research design and methodology utilised and explained the epistemological view and the study's paradigm. Exploring the data collection methods, data analysis approach and techniques and detailing the findings concluded the chapter. Now chapter five explores what the findings reveal and what the Montessori community can learn from this study.

5.2 What the Findings Revealed?

The findings of the study reveal the perspective of both contemporary educators and leaders in Australia through the lens of Montessori leadership and quality. Connections were shown between what different Montessori stakeholders (leaders, educators, deputies, coordinators, consultants, administration staff and trainers) perceived as quality and elements of leadership. The study places at the forefront and refreshers Montessori's own voice in this area to clarify her established messages. Montessori's theory is well-defined from a psychological and pedagogical standpoint and Montessorians need to work to have her theory commonly referred to. Montessorians know that many of her principles and practices can be seen in every early childhood setting around the world.

Analysis and reflection demonstrate that most of the respondents had been in Montessori for either over 20 years or were new to Montessori, with the majority including leaders, deputies and coordinators and educators. Moreover, the three-to-six-year age group was the main one that most leaders were trained in. Many of the leaders and all of the trainers hold Masters' degrees, with under half the educators holding a degree. Furthermore, nearly all the respondents had previously been in a leadership position.

Government compliance does influence Montessori leadership enactment, yet leaders perceived this influence as much lower than all the other participants. Consultants and administration stated compliance has the largest influence on Montessori leadership. The average affect acknowledged by participants was rated at 70%.

5.2.1 Participants Perceptions on Quality

The study argues that Montessori contends that adults in Montessori settings need Montessori training not just a brief background knowledge on the principles and practices. As can be seen from some quality assurance programs, including AMS, MANZ and AMI who refer to Montessori trained educators as essential but for leaders they only need orientation knowledge of Montessori. Montessori and ME UK both stipulate leaders and educators must both have Montessori training. The researcher would argue that this situation is more to do with lack of access to Montessori trained individuals who are able and desire to lead a setting than the organisations (AMS, MANZ, AMI) not seeing the need. Whether AMI's new 'Administrators Trainers' will provide a new generation of authentic Montessori

leaders remains to be investigated by future studies. This study has revealed that work needs to continue pathways for Montessori trained individuals to be supported into leadership.

All participants commented on quality in Montessori settings, with leaders considering educators the most influential for quality and the lowest influence being balanced mixed age groups. Meanwhile educators perceived the highest quality education factor as both themselves and planning, reflecting, and assessing children, with the lowest impact on quality perceived as balanced mixed age groups. Montessori trainers, deputies and coordinators all identified planning, reflecting, and assessing children the highest and both a prepared environment and balanced mixed age groups slightly lower. Montessori consultants and administration staff rated all areas for quality as equally important.

Overall, the participants responded that the main areas that both leaders and educators contribute to quality education is through implementing Montessori philosophy and best practice with no "compromise or dilution" (Leader 6). Through using "observing, mixed aged classes, uninterrupted work time, maintenance of materials and prepared environment, encourage independence, remove obstacles and know child's interests" (Leader 1). Participants recommended that educators "take advantage of professional development opportunities" (Leader 3) as "educators are the first call for quality education and are responsible for learning standards and inclusion" (Educator 8), they provide quality by "parent education and protecting the work cycle" (Coordinator/deputy 12). Whilst leaders "establish and maintain culture, strategic planning, continuous improvement and vision through resourcing of materials and staff" (Leader 28).

Leaders stated that educators contribute to quality through working with children with a loving attitude through an authentic Montessori delivery. Networking with colleagues and preparing the environment were seen as vital. Genuinely distributing the leadership of the setting was stated as having an impact on quality. Montessori training, communicating with families and using professional development opportunities also added to their contribution to quality. Additionally, leaders perceive that a list of quality indicators for educators is "students wellbeing, reflective practice, continuous professional development, collaborative collegial work, mentoring each other, and planning strategically through Montessori pedagogy" (Leader 23).

Coordinators and deputies perceived the quality educators could provide was through "preparing the environment, giving presentations, speaking with families and doing formal family education events. Also collaborating to further their own practice and to support individuals in their environments, they are responsible for training and guiding support staff" (Coordinator/deputy 27). This group of participants additionally perceived educators instilling quality by "following Montessori principles and practice, gaining Montessori training, observing, implementing and maintaining mixed aged classes, uninterrupted work time, maintenance of materials and prepared environment, whilst encouraging independence, removing obstacles and knowing a child's interest" (Coordinator/deputy 1).

Consultants, administration, and trainers highlighted how educators developed programs in addition to "classroom and outdoor environment development and maintenance, classroom management, parent communication, community communication, standards and best practices, whilst being creators of joy" (Coordinator/deputy 5). Moreover, educator's quality is implemented via their "Montessori training, being a team player and gaining training in conventional qualifications too" (Trainer 9).

Educators themselves perceived they contributed to quality in Montessori settings by "planning and executing quality lessons, caring for the children and developing the children at their own pace" (Educator 24). Additionally, through "developing independence, facilitating self-directed learning, validating emotions of the children and supporting them to develop emotional well-being" (Educator 26). It was stated that "educators are the first call for quality education as they are responsible for learning standards, inclusion and team responsibility" (Educator 8).

5.2.2 Participants Perceptions on Leadership

Leaders contribute to quality by "employing trained Montessori educators and allowing those educators to implement Montessori authentically" (Coordinator/deputy 1). Leaders "set expectations and facilitate communication between staff and between staff and parents" (Leader 3). Leaders provide quality through "ongoing monitoring and mentoring of Montessori philosophy and teaching" (Leader 6). Additionally, leaders need to "network and be aware of contemporary educational research to know how to incorporate if needed without compromising quality of Montessori curriculum or culture

of the setting" (Leader 6). They also give support for the "broader strokes of schools functioning" (Leader 7) and can "provide resources, support and opportunities for collaboration in pedagogical knowledge" (Leader 9). Another way quality is supported by leaders is by "leading by example and always being fair and honest in their communications" (Educator 8). Leaders also require "Montessori training in addition to conventional training" (Trainer 9) and "maintain Montessori values, conduct parent education and advocate for staff with the Board" (Coordinator/deputy 12).

Leaders say they contribute to quality (in order of highest mentions by participants) through mentoring, establishing, and maintaining culture, set expectations, reviews, goal setting and team building. Moreover, maintaining authentic Montessori delivery through training of educators and encouraging their professional development. Leader participants felt they contributed to quality by networking and continuous improvement. Through developing a vision and supporting staff by providing resources and class budgets and maintaining the stability of the school. It was also stated that leaders contributed to quality by being aware of contemporary research and its possible inclusion into authentic Montessori programs. Strategic planning, communication, and the child at the centre of all decisions were also highlighted by leaders. One leader stated that,

> "*Quality Montessori training and delivery; teamwork; no dilution of Montessori; ongoing monitoring and mentoring with experience of Montessori philosophy and teaching. Regular staff reviews and Montessori goal setting, leaders need to network and be aware of contemporary educational research and how to incorporate if needed without compromising quality of Montessori curriculum or culture of the school"* (Leader 6).

Another leader participant stated that,

> *"Leaders support the broader strokes of schools functioning (admissions, placements, transitions, admin). They support teachers through open communication for self-reflection and growth. Providing resources, support and opportunities for collaboration in pedagogical knowledge, skills and meaningful relationships. Facilitating relationship building among the school community"* (Leader 7).

Coordinators and deputies say leaders contribute to quality through "employing trained Montessori educators, allowing those educators to implement Montessori education authentically, and encouraging and supporting Montessori professional development whilst acting with an authentic Montessori approach to all leadership aspects" (Coordinator/deputy 1). Leaders need to,

> "O*bserve, give feedback for educator's professional growth. If a leader is not Montessori trained, they should be constantly looking to learn more through reading and observations. Leaders must listen to needs of staff and faculty and provide professional development opportunities or approve money to be spent for more training. Leaders also organise strategic planning to keep the school relevant and have an eye on the mission statement and values when making decisions so looking achieve the goals set out by our organisation."* (Coordinator/deputy 27)

Educator's responses about leader's contribution to quality included their ability to plan lessons and support staff and team goals. Educators saw leaders as crucial to inspire and motivate, providing professional development opportunities and Montessori resources. They must "lead by example with high yet reasonable expectations for teachers. Inspire teachers to continue training and professional development. Being fair and honest in their communications" (Educator 8). Leaders instil quality through "compliance and dealing with parents" (Educator 13). Additionally, trainers and consultants perceived leaders must have both "Montessori training and conventional training, support educators, and must understand that support in Montessori settings looks different than support in a conventional school" (Trainer 9).

Chapter 6: Conclusions

"It is responsibility that a leader should feel, not the authority of his position."
(Montessori, 1989, p. 65)

"…focus on leadership, ensuring principal autonomy, building a pathway for school leaders and equipping them with professional development."
(Gonski, Arcus, Boston, Gould, Johnson, O'Brien, & Roberts, 2018)

"Effective educational leadership builds the capacity of educators by inspiring, motivating, affirming, challenging and extending their practice and pedagogy. This joint endeavour involves inquiry and reflection and supports ongoing learning and professional development." (ACECQA, 2021)

6.1 Discussion on Findings

The research study findings will be beneficial to the development of the modern Montessori leader and the research maybe applied to other leaders in education and business. Dhari (2012) wrote about modelling a business after Montessori principles, for example to nurture employees and give them room to grow and motivating employees through intrinsic rewards by giving them interesting projects to work on. Additionally, the study's findings will be of interest to Montessori practitioners globally and it will contribute to Montessori leadership effectiveness. The findings can be incorporated into potential and established leaders training programs and day to day leadership through creating the 'Framework of a Researched Montessori Approach to Leadership' (FORMAL) based on Montessori's vision and contemporary leadership compliance.

6.1.2 Montessori Quality

Prepared Leaders

Montessori's educational approaches are consistent with research that identifies leaders working relentlessly solely for making a setting a better place and placing the child as central to decision making. Leaders are role models, demonstrating morals and respect, showing humility, whilst being fair and trustworthy and serving the child. Leaders are grounded in Montessori principles, driven by the heart and code of ethics and morals. They are guided by moral authority and possessing humility and drive, which leads their community to freely develop. Furthermore, they display altruistic behaviours and are the personification of quality and inspiration. Originally the person leading the setting would be

living in the tenement building too and, "dedicates her time and her life to helping those about her" living under the eyes of the families (Montessori, 1913/1965, p. 62). Montessorians need to have virtues of "humility and patience" (Standing, 1957, p. 299) and morals, "the rightness and wrongness of actions" (p. 114).

Prepared Educators

The educators have undergone Montessori training and personal transformation, knowing that adults should interact with children with love and respect. They are encouraging, use initiative, are independent, self-reliant, creative and have self-control, encouraging independence. Montessori argued that the current educational approaches did not meet children's needs or respect their innate motivations to learn and develop and required a 'new' adult to support them (Kramer, 1976). "Anyone who wants to follow my method must understand that they should not honour me but follow the child as their leader" (Montessori, 1956/1970, p. 7).

Prepared Environment

The importance of the prepared environment was continually and consistently argued by Montessori for removing obstacles from the child's development and maintain the health of body, spirit and intelligence, "the work of education is divided between the teacher and the environment" (Montessori, 1912/1967, p. 150*)* with the teacher as "'the catalyst' between a child…and the environment prepared for their education" (Montessori, 1912/1967, p. 32). Additionally, she stated that,

> *"The intellect builds up its store of practical ideas through contact with, and exploration of its environment. Without such concepts the intellect would lack precision and inspiration in its abstract operations…. our sensorial materials and the exercises done with them…. detect functional defects in the senses at a time when much can be done to correct them."*
> (Montessori, 1912/1967, p. 101).

Montessori further states that the difficult behaviour of small children is,

> *"a manifestation of defence or of unconscious despair at not being able to 'function' during that period on which the whole future depends and every hour of which brings*

its progress. Difficult behaviour can also be a form of agitation caused by mental hunger when the child is deprived of the stimuli of the environment or by a sense of frustration experienced when he is prevented from acting in the environment."
(Montessori, 2005, p. 35).

Montessori advocated for an appropriate environment that guided the children's freedom "so that they could act according to their inner needs, rhythm and tempo" (Montessori, 2015 p. 12). She advised that "the prepared environment should bring the world at large, and thus the adult world, within reach of the child at whatever stage of development it is at any given moment (p. 18). The prepared environment "encourages respect for others and for materials" p. 23).

Balanced Mixed Age Groups

Montessori stated that it would be impossible to implement Montessori education if a class did not compromise of balanced mixed age groups. She argued,

"The number of children there should be in a class in order to give profitable results, 30 to 40. When there are fewer than 25 the standards become lower and in a class of 8 it is impossible to obtain good results. 25 is sufficient but 40 is the best."
(Montessori, 1946/1989, p. 61)

Montessori continued to explain how important mixed age groups were by saying,

"…30 children are mixed in ages of 3 to 6 years old. This fact makes such a difference, that if one were to put all the children of the same age together, there would be no success, and it would be impossible to apply our method…one of the great advantages of our method is this living together of the three ages and it is one of the best ways for individual development."
(Montessori, 1946/1989, p. 65).

Montessori clarified cultural development as greatly influenced by different ages because a young child,

"…learns from an older child; how patient the older child is with the difficulties of the younger. The younger child is material for the older child to work upon… as

when you teach something the subject becomes clearer for you. There is nothing that makes you learn more than teaching someone else… you must understand that to have success you must have these different ages."
(Montessori, 1946/1989, p. 69).

Montessori further rationalised the logic for mixing the ages in classes by stating,

"In the same class there should be found children of three ages: the youngest are spontaneously interested in the work of the older children and learn from them and should be assisted by them."
(Montessori, 1997, p. 329).

Montessori described "the older child does not arouse envy merely by being older… the younger child's attitude is one of admiration and devotion" (Montessori, 2005, p. 35). She encouraged Montessori settings to have a flow of children throughout settings, saying,

"*…one of the secrets is open doors. In our schools there is no such thing as a closed door… the open door to the other rooms gives a freedom of circulation, between the different grades, and this circulation is of the utmost importance for the development of culture."*
(Montessori, 1946/1989, p. 65).

Montessori Materials

Montessori explained that,

"*…the materials and individual (based on free choice of the child) child's natural interest are equally important. Teacher must be able to inspire interest in the child and then know how to educate it. Materials must be just the right amount and no more sufficient for cultural development.*"
(Montessori, 1946/1989, p. 61).

Montessori established that with one set of each type of material the classroom worked well but without that "disciplined is slackened". Materials, she stated, serve two main purposes,

> "*On the one hand, it furthers the inner development of the child: specifically, the indirect preparation that must precede the development of any new ego function. On the other, it helps the child to acquire new perspectives in its exploration of the objective world. It makes it aware of certain qualities of the objects, their interrelationships, existing principles of differentiation within a given category, organizational sequences, and special techniques for handling the objects. It challenges the intelligence of the child, who is first intrigued and later fully absorbed by the principle involved. If a spark is lit, a principle discovered, it awakens in the child an urge to exercise its newly acquired insight through endless repetitions of the action that led to it. When the child has fully mastered the principle involved, it spontaneously proceeds to apply it in handling all kinds of objects. The material does not, in the first place, teach children factual knowledge. Instead, it makes it possible for them to reorganize their knowledge according to new principles. This increases their capacity for learning. Because the material serves this function, Montessori referred to it as materialized abstractions."*
> (Montessori, 2015, p. 18),

Observations of the Children and Class

Trained adults observe and guide, rather than teach. Observing happens daily and is considered integral to recognising children's needs and supporting them to reach their full potential. Montessori herself states that the method is,

> "*…founded on the child himself. Our study has its origins in the child. The method has been achieved by following the child and his psychology. It is objective, not subjective as all the others are. It is always based on our ability to interpret our observations of those phenomena which originate in the child himself. A soundly objective method is based on observation, the observation of facts, which is why the Montessori Method is entirely different from all the other methods*."
> (Montessori, 1946/1989, p. 7-12).

Uninterrupted work periods

The key to building focus, independence, and concentration. These need to last for several hours to be most effective. Only when required by the child do educators interrupt this cycle of work. "The little child who persists in his exercises, concentrated and absorbed,

is obviously elaborating the constant man, the man of character, he who will find in himself all human values, crowning that unique fundamental manifestation: persistence in work" (Montessori, 1913/1965, p.139). Montessori found that when a child is interested in work, they do not feel tired but feel rested as they work, as the child is motivated from within. "…when the cycle is completed, the child detaches himself from his internal concentration; refreshed and satisfied, he experiences the higher social impulses, such as desiring to make confidences and hold intimate communion with other souls" (Montessori, 1913/1965, p. 76).

Across her publications Montessori explained how important a long period of uninterrupted time was for the developing child,

> "*The child of this age sets out to do a certain task, perhaps an absurd one to adult reasoning, but this matters not at all; he must carry out the activity to its conclusion. There is a vital urge to completeness of action, and if the cycle of this urge is broken, it shows in deviations from normality and lack of purpose. Much importance attaches now to this cycle of activity, which is an indirect preparation for future life. All through life men prepare for the future indirectly, and it is remarked of those who have done something great that there has been a previous period of something worked for, not necessarily on the same line as the final work, but along some line there has been an intense effort which has given the necessary preparation of the spirit, and such effort must be fully expanded - the cycle must be completed. Adults therefore should not interfere to stop any childish activity however absurd, so long as it is not too dangerous to life and limb! The child must carry out his cycle of activity."*
> (Montessori, 1946/1989, p. 45).

<u>Individualised Learning and Following a Child's Interests.</u>

Individual learning gives a sense of control to the child by catering to each child's rhythm, pace and challenges and helping develop a love of learning and friendliness with error. Montessori stated that,

> *"In her duty of guiding a child in using the material, a teacher must make a distinction between two different periods. In the first she puts the child in contact with the material and initiates him in its use. In the second she intervenes to*

enlighten a child who has already succeeded in distinguishing differences through his own spontaneous efforts. It is then that she can determine the ideas acquired by a child, if this is necessary, and provide him with words to describe the differences he has perceived."
(Montessori, 1913/1965, p. 153).

Individual learning occurs through child directed work, which aims to motivate and inspire intrinsic rewards for them, generating a desire to learn and a love of learning. Montessori stated that *"*as soon as children find something that interests them, they lose their instability and learn to concentrate" (Montessori, 1936/1983, p. 145). She pointed out that,

"*…the task of teaching becomes easy, since we do not need to choose what we shall teach but should place all before him for the satisfaction of his mental appetite. He must have absolute freedom of choice, and then he requires nothing but repeated experiences which will become increasingly marked by interest and serious attention, during his acquisition of some desired knowledge.*"
(Montessori, 2015, p. 5).

Partnerships with Families

Families decide if their child will attend a Montessori setting. Consequently, it is essential that families gain an understanding of how Montessori education can support their child. Montessori urged all adults to take their lead from the child, she stated that,

"*…the environment itself will teach the child, if every error they make is manifest to them, without the intervention of a parent or teacher, who should remain a quiet observer of all that happens."*
(Montessori, 1956/1970, p.28).

"*The spontaneous urge towards development, which is within the child, dictates its own pace. It is the part of a wise and loving parent to stand by, to watch the little one's activities, to observe his growth rather than to try to force it."*
(Montessori, 1931/2017, p. 28).

6.2 Keys of Montessori Approach to Leadership

The fundamental basis of the Montessori approach are adults demonstrating their embedded virtues and morals. Positioning the child front and centre in all areas for all decisions, exhibiting deep love for the child. Montessori stated that "human work…must be based upon these three laws… love, know and serve" (Montessori, 1946/1989, p. 86).

Additionally, it is what *individual intent* each person brings to their role in the setting, for example, the embedded morals and virtues of the individual, which other researchers also echo in their studies. These include humility, patience, the rightness and wrongness of actions, fairness, tranquility, courage, patience, perseverance, altruism, curiosity, creativity, love of learning, self-discipline, good manners, and respect. (AITSL, 2021; Cuban, 1992; Duigan, 2012; Jurkiewicz & Giacalone, 2017; Montessori, 1942/1970; 1967; 1998; 2005; Mario Montessori, 1976; Standing, 1957). As Montessori said, "to think and to wish is not enough. It is action which counts" (Montessori, 1913/1965, p. 171).

6.2.1 Framework of Researched Montessori Approach to Leadership (FORMAL).

The FORMAL framework includes the *keystone* elements of Montessori (prepared leaders, educators and environment, observations, following the child's interest, individual learning, uninterrupted work periods, materials and mixed age groups) which develop into the arch of leadership. The arch's foundations are the Planes of Development, absorbent mind, sensitive periods and human tendencies. These principles underpin implementing a Montessori approach. The *keystone* elements produce the main arch with interrelating elements continue the building techniques and strong structure of Roman Arch (Figure 11).

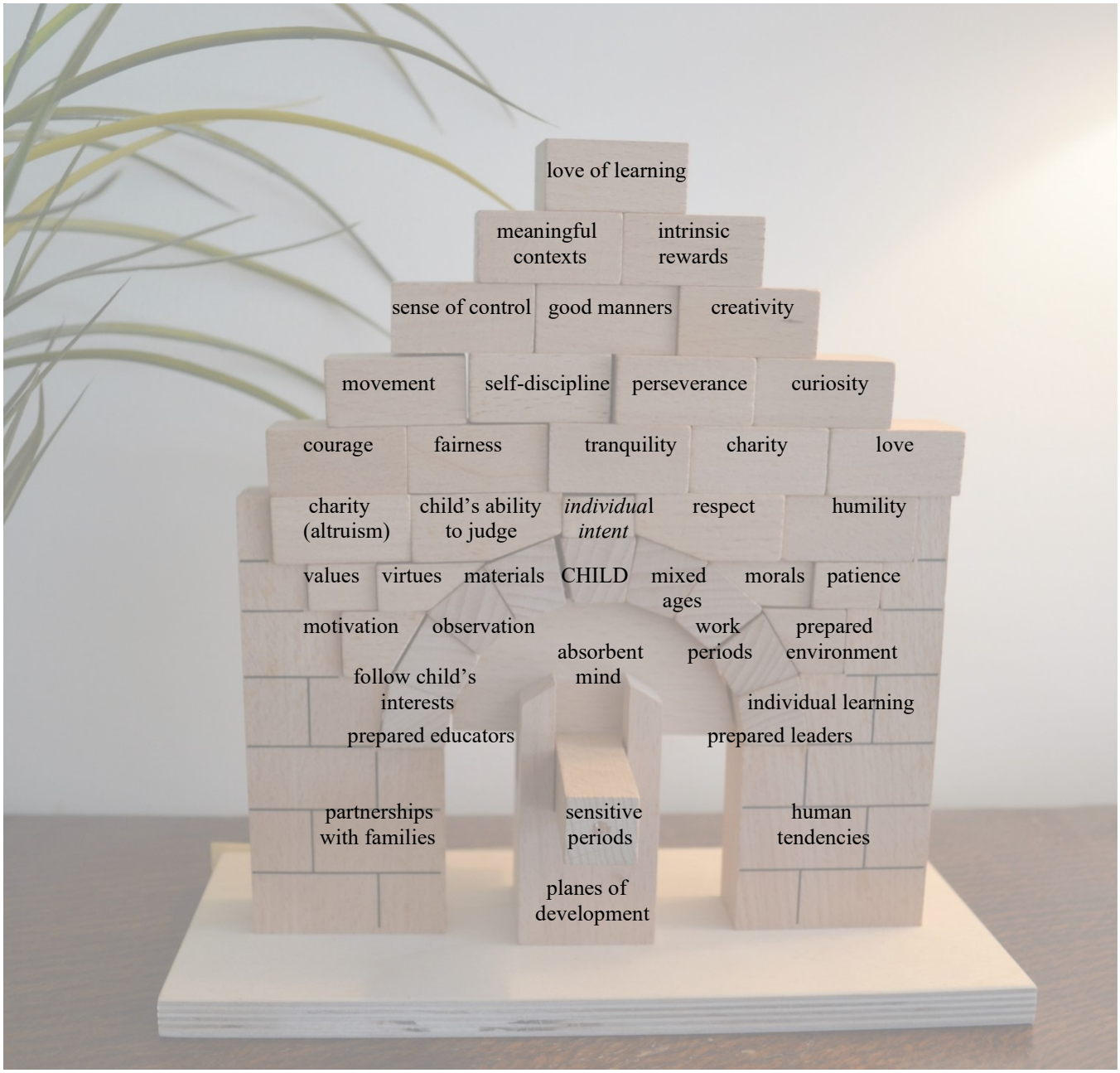


Figure 11: Montessori Keystone Elements Building the Arch of Leadership (Beresford-Jones, 2021)

By utilising their *individual intent*, motivation, values, humility and patience, virtues, morals and partnerships with families, leaders can continue to strengthen their Montessori approach to leadership. The other keys include supporting a love of learning, sense of control, intrinsic rewards, good manners, creativity, respect, meaningful contexts, movement, self-discipline, perseverance, curiosity, courage, fairness, tranquility, charity, love, facilitate and support children's ability to judge.

Chapter 7: Epilogue

"The child's development follows a path of successive stages of independence, and our knowledge of this must guide us in our behaviour towards him. We have to help the child to act, will and think for himself. This is the art of serving the spirit…."
(Montessori, 1995, p. 257)

"The future of any society depends on its ability to foster the health and well-being of the next generation. Stated simply, today's children will become tomorrow's citizens, workers, and parents. When we fail to provide children with what they need to build a strong foundation for healthy and productive lives, we put our future prosperity and security at risk."
(National Scientific Council on the Developing Child, 2007, p. 1).

The researcher personally knows some leaders in Montessori settings who can

7.1 Summary of the Study

In chapter one the study introduces its aims as being to critically appraise Montessori philosophy on educational leadership and quality. The history of Montessori education and approach was summarised focussing on Montessori's statements on adults in Montessori settings. These prepared adults need to be fair and trustworthy and should learn and implement the elements of her philosophy, materials, and curriculum through demonstrating morals, respect, and humility. Australia has 264 settings with Montessori in their name (ACECQA, 2021) whose leaders come from a range of backgrounds, bringing a wealth of experiences, although many have not trained in Montessori philosophy and practice. Montessori herself stated that once participants in Montessori training courses received their diploma it "entitled the holder to open a school" (Standing, 1957, p. 73). Montessori placed great importance on the development of leaders and conducted lectures on school management in 1906 at the University of Rome (Trabalzini, 2011). Montessori's theory of child development established in the early 1900s was highlighted. Chapter one also explored the many researchers who have demonstrated (Connolly, James & Fertig, 2017; Fullan, 2014; Whitaker, 2013) the impact leadership can have on, not just the quality, but all aspects of an educational settings. The research questions foci were on leadership and quality and were written for both educators and leaders. The Australian government compliance structure and a variety of definitions of quality were outlined.

Chapter two of this thesis statement profiled the literature searched and the empirical studies conducted both by Montessorians and other researchers. Educational leadership theories are investigated and if any align with Montessori philosophy and concluded that one of these is Montessori's own theory of child development. Additionally, the chapter explored what quality education is and how this is evident in Montessori settings. Montessori intended her educational approach to be as authentic to her original vision as possible. Montessori saw adults as leaders, as well as children as future leaders. Montessori children are brought up in an interrelated way of understanding that we are all part of one world. The children develop abilities to question ideologies, judging the positive and negative features themselves, not following blindly (Montessori, Mario, 1956). The adult's *individual intent* and motivation play a key role in building trust, role modelling their moral character and placing the children front and centre. The chapter explores a Montessori approach to quality and the *keystone* elements required to implement this quality in a setting Montessori and developmental outcomes, AMS, ME UK, AMI and MANZ's outlines are all contrasted and compared. Moreover, the DERS model outlines how Montessori environments need to foster children's executive functions, linguistic, cultural, and social fluency in addition to emotional flexibility.

Additionally, chapter two explores leadership impact on quality of student outcomes, educators, families, and Montessori settings, Lillard (2018) stated that authentic Montessori is crucial for quality. Furthermore, the Australia government, through ACECQA, additionally set a benchmark for quality in early childhood settings through the EYLF and NQS. Furthermore, traditional primary schools and current researchers of traditional early childhood and primary settings were explored.

In chapter three the educational leadership theories were investigated as some may align with a Montessori approach. Leaders of Montessori settings need a higher commitment to put the development of the children first and understanding their own *individual intent*. Characteristics of effective leaders, as researched across the last century, were explored in addition to specific characteristics emphasised when implementing a Montessori approach, including altruism, respect, humility, and morals. Leading a Montessori learning community requires more than an understanding of school management (Wolff, Eanes & Kamistein, 2005). It calls for the ability to stay focused on the principles, priorities, systems, and strategies that can produce an authentic and sustainable Montessori program. The study

explores where potential Montessori leaders will emerge from as research demonstrates that many high performing leaders said that being identified as a potential leader was a major contributor to their development (Barber, Whelan & Clark, 2010). Female leadership was investigated and demonstrated that female leaders appear to be superior to male principals in leadership adaptability and prioritise relationships with all stakeholders and utilise their humanistic and collaborative leadership. Females experience higher visibility and scrutiny than male leaders but are more open and promote diversity in their colleagues.

Additionally, this chapter emphasised a person's motivation to lead a Montessori setting - their *individual intent* (Beresford-Jones, 2021) – altruistic, humbly playing their part, genuine, self-aware, courageous, and vulnerable (Brown, 2017; 2019; Collins, 2007). The factors that influence leaders and quality education include the umbrella organisations effecting Montessori settings. Government departments, Montessori organisations, such as MSCA, Montessori training associations, such as SMTC, and some also required a board to oversee the educational organisation. Montessori trained educators are vital to a quality Montessori setting so training becomes a priority for leaders however, chapter three revealed that from 2015 to 2018 Montessori training conducted by AMI resulted in 113 educators and no leaders receiving training compared with MWEI training 833 educators and 20 leaders. Montessori leaders must support the qualified Montessori educators, promote a culture of commitment, not just compliance, the children's developmental needs are their priority. Models of leadership drawn from the literature clarify which ones a Montessori leader would utilise, including servant, distributed, ethical, transformational, and instructional. The training and characteristics of leaders are revealed with Montessori leaders differing from other leaders through the need for a greater emphasis on morals, respect, humility, altruism, serving the child, role modelling and a good understanding of Montessori education.

During chapter four the research design and methodology were discussed through the researcher's ontological lens that humans participate in the construction of their reality and knowledge. A pragmatist view was utilised, and the researcher's epistemological beliefs developed through the researchers' own experiences, level of education, age and context and means the study relies on the 'participants' views of the situation being studied' (Creswell, 2003, p. 8). The research question, 'Montessori leadership philosophy re-examined and its influence on education quality as embodied in contemporary Montessori settings' was studied through a mixed-methods approach to gain perspectives from stakeholders, leaders

and educators through a questionnaire. The research problem occurs through leaders' inconsistent approaches in Montessori settings, fluctuating quality and not supporting and implementing Montessori philosophy and practice. The researcher's answered the research questions through comparing the perspectives of each group with *keystone* elements of Montessori philosophy and practice. By creating a measurement based on the elements and the underpinning theories, the data collected can be operationalised.

Additionally, this chapter outlined the sampling process of a population of leaders and educators in Montessori settings in Australia with the sampling frame being drawn from ACECQA's list of 'Montessori' settings (ACECQA, 2021). Purposive nonprobability sampling was utilised to gain plenty of the most appropriate data (Yin, 2002). Through hearing from educators as well as the leader of the setting, a broader range of data was examined. The triangulation method was used in this study. Different views were collected on quality leadership from the sources being utilised in this study, leaders, and educators. A pilot study was conducted with alumni Montessorians. Data was collected through scale measurements and narratives of stakeholder perspectives. and analysed following Clarke & Braun's (2013) framework identifying the 'six phases of thematic analyses' for qualitative data patterns to be detected and analysed. Bias, transparency, rigor and limitations to the study were all discussed. In addition, ethical considerations incorporated many of the questions in Australian ethics application for projects. The findings were outlined in this chapter and revealed:

- Largest number of respondents had been in Montessori for either 20+ years or were new to Montessori with under five years of experience.
- Main age group that leaders were trained in was three to six (41%) and next were trained in birth to three age group (24%).
- Qualifications held –

  Master – Leaders 67%
  Trainers' 100%
  Coordinators/ deputies' 28%.

  Degree - Educators 44%.

  Additionally, 79% of respondents had previously been in a leadership position.
- Participants were leaders/deputies/coordinators (42%), educators (34%), trainers/ consultants (14%).

- Highest factor for quality education:

  Leaders consider educators (97%).

  Educators see themselves and planning/reflecting/assessing children (88%).

  Coordinators/deputy leaders stated planning/reflecting/assessing (98%)

  Montessori trainers identified planning/reflecting/assessing highest (100%)

  Montessori consultants/administration staff rated all areas for quality as equally important (100%).
- Overall, from all participants planning/reflecting/assessing (96%), educators (95%), prepared environment (92%) and balanced mixed age groups rated the lowest (91%).
- Government compliance effect on Montessori leadership enactment depended on your role in the educational setting:

  Leaders 44%

  Educators 73%

  Coordinators/deputies 65%.

  Consultants/administration 100%.

  Trainers 69%.

Chapter five reported on the findings of the study which made known the perspective of both contemporary educators and leaders in Australia through the lens of Montessori leadership and quality. Connections were drawn between what different Montessori stakeholders (leaders, educators, deputies, coordinators, consultants, administration staff and trainers) perceived as quality and elements of leadership. The participants perception on quality included that work needs to continue on pathways for Montessori trained individuals to be supported into leadership. All participants commented on quality in Montessori settings, with leaders, educators, trainers, deputies/coordinators all considering the lowest influence being balanced mixed age groups. Interestingly Montessori herself stated that "if one were to put all the children of the same age together, there would be no success, and it would be impossible to apply our method" (Montessori, 1946/1989, p. 65).

Montessori consultants and administration staff rated all areas for quality as equally important. All the participants stated that main areas that leaders and educators contribute to quality education is through implementing Montessori philosophy and best practice with a loving attitude through an authentic Montessori delivery.

Furthermore, chapter five analysed participants perceptions on leadership and quality including employing trained Montessori educators, communication, mentoring of Montessori philosophy and leading by example. Leaders stated that they contribute to quality through mentoring, establishing, and maintaining culture, set expectations, reviews, goal setting, team building and maintaining authentic Montessori delivery. Educator's saw leader's contribution in their ability to plan lessons, support staff, team goals, inspire, motivate, providing professional development opportunities, Montessori resources, be fair and honest.

Lastly, chapter 6 explored the conclusions of the study as being beneficial to the development of the modern Montessori leader contributing to their effectiveness and applied to other leaders in education and business. Additionally, this chapter highlighted that quality in Montessori revolves around having elements in situ. These include distinctive Montessori preparation for leaders and educators. Furthermore, preparing the environments through balanced mixed age groups, Montessori materials, uninterrupted work periods, observations by the adult of the children and class as a whole, individualised learning, following a child's interest and partnerships with families. Moreover, the chapter highlighted the keys to a Montessori approach to leadership with the fundamental basis being the leader's embedded virtues and morals. In addition to positioning the child front and centre in all areas for all decisions and exhibiting deep love for the child. This is revealed through the leader's *individual intent* demonstrated such as, humility, patience, the rightness and wrongness of actions, fairness, tranquility, courage, patience, perseverance, altruism, curiosity, creativity, love of learning, self-discipline, good manners, and respect. (AITSL, 2021; Cuban, 1992; Duigan, 2012; Jurkiewicz & Giacalone, 2017; Montessori, 1942/1970; 1967; 1998; 2005; Mario Montessori, 1976; Standing, 1957).

Moreover, the creation and development of the 'Framework of a Researched Montessori Approach to Leadership' (FORMAL) based on Montessori's vision and contemporary leadership researchers. The arch's foundations are the Planes of Development, absorbent mind, sensitive periods, and human tendencies underpinning the implementation of the Montessori approach.

7.2 Study's Contribution to Literature and Knowledge

There has been no possibility of building on years of research focussed on Montessori leadership or quality Montessori education in Australia, as no research has been carried out in this field. Through endorsing empirical studies, the future research in the field of Montessori leadership and education quality will be augmented. These studies will bring knowledge and discussion about how leadership could be understood and portrayed. By re-examining Montessori's educational philosophy, a renewed focus will take place on a leader's implementation of Montessori's approach to enhance quality of children's education. Amplifying what quality Montessori education looks like and how leaders' *individual intent* can magnify children's outcomes.

Indeed, the study contributes to the wider educational community by providing the opportunity of leader's professional development in the Montessori philosophy approach. Emphasising the preparation of the adult in applying values to interactive moments in their daily life. In addition, supporting the whole setting with the child as the central component, and developing morals and virtues as intrinsic attributes for leaders. The research contributes to an approach that supports and understands the complex key issues facing leaders of schools and centres in Australia today. The potential sphere of influence of the study could impact the establishing of leadership roles; the development of Montessori leadership training opportunities, including mentoring; elevating the quality in Montessori settings by highlighting mainstream excellence; and establishing support for both new and experienced leaders.

The problem statement answered the main question of how Montessori's philosophy is being implement by leaders of contemporary Montessori's settings. The emergent themes from the findings in this qualitative research's data highlighted stakeholder's perceptions of key Montessori principles and practices as much lower in importance than Montessori herself advocated. These perceptions have large implications within the wider leadership diagnostic framework envisaged. These emerging themes as the basic building blocks of an inductive approach were found through the process of coding.

The study therefore contributes to knowledge and research through,

1. Adding to the field of Montessori leadership.
2. Adding to the field of Montessori quality.

3. Providing opportunity for leader's professional development in the Montessori philosophy approach including cultivating *individual intent*.
4. Empirical comparison of contemporary stakeholder's perceptions with Montessori's original vision.
5. Knowledge and understanding to create a leadership framework – 'Framework of Researched Montessori Approach to Leadership' (FORMAL).

7.3 Next Steps

The study may act as a springboard for other researchers to further development in the areas of Montessori around leadership, quality assurance, developing leaders with Montessori training, mentoring and leader's professional development in particular. Montessori (1967/1992) said the adults,

> "…*must acquire a moral alertness which has not hitherto been demanded by any other system, and this is revealed in their tranquillity, patience, charity and humility. Not words but virtues are the main qualifications*."
> Montessori (1967/1992, p. 151).

Montessori leadership is grounded in Montessori principles, driven by the heart and code of ethics and morals. Mario Montessori (1956, p. 17) eloquently stated our task as Montessorians to support the child through implementing our comprehensive and all-encompassing training knowledge to ensure that each child can think for themselves and others, "when they have reached adulthood…then no matter what ideology would come thereafter, they would have a basis of judging its positive and negative facets." Montessori spoke of supporting the child's spirit too, "we have to help the child to act, will and think for himself. This is the art of serving the spirit…." (Montessori, 1995, p. 257)

Additionally, finalising the development of two new components to support leaders in their Montessori approach. The creation of a Montessori leadership framework – 'Framework of Researched Montessori Approach to Leadership' (FORMAL) (Figure 11). Furthermore, defining *individual intent* further for Montessori contexts in particular

The researcher believes now more than ever that the message to the wider educational community is clear - stop denying Montessori's theory and start understanding

how the world will improve by implementing the principles and practices especially around respect, humility, and charity. An Australian television current affair program (Insight, 2017) is just one example of where Montessori principles are spoken about without recognition. Adult traditional school graduates were asked how teachers had changed their lives and one young man explained that it was because the principal 'asked' him what was happening and 'talked to him as an individual not a student'. Additionally, he was 'given and learnt to accept responsibility for his work and actions', and the principal acted as a 'guide', to 'build me into a man'.

Further questions arise over Australia's ability to gather data on Montessori trained educators and leaders which greatly effects any research. As with this study there is no access to individual educators to invite them to participate in the study, which led to a lower participation rate. The researcher was informed by many individual educators that the leader had not forwarded on the questionnaire to staff in their setting. Moreover, further research is desperately needed into a genuine process to gauge quality in Montessori settings in Australia. The quality assurance must be based on Montessori's stipulations and include government and state regulations and requirements.

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Appendix 1

Examples of Montessori Associations and Training Courses (2020)

There are several Montessori associations around the world whose main role is to provide training, support the development of Montessori programs, encourage research, organise conferences, and provide mentoring and professional development. They are also the collective voice of Montessori settings when approaching government departments to influence national policies and practice. These Montessori associations include: Association Montessori Internationale (AMI), American Montessori Society (AMS), Canadian Council of Montessori Administrators (CCMA), The Indian Montessori Association (IMA), Montessori Europe (ME), Pan American Montessori Association (PAMA), The Montessori Foundation (MF) and the Montessori Institute (MI). Examples of associations established in Australia are Montessori Schools and Centres Australia (MSCA) and the Montessori Institute (MI) (formerly known as MWEI).

Montessori Institute (formerly MWEI)
This national organisation was established in 1983 by Beth Alcorn who had the support of both Margaret Homfray and Phoebe Child. In the UK and the USA both Child and Homfray had trained with Maria Montessori and worked with her in translating lectures and setting up training centres. Montessori believed that teachers in training need to be immersed in a Montessori training course. She felt that the adults needed to attend face to face training, carry out many hours of observation of children's development and participate in large amounts of practice with the materials. Montessori's 'permission' was withdrawn from Homfray and Child, who then implemented training of courses they had written themselves and which were delivered mainly by correspondence. Montessori Institute in Australia is a Montessori training provider and maintains its connections with UK and USA and carry out a mix of face to face and online training.

The Association Montessori Internationale (AMI)
This international organisation was established in 1929 by Maria and Mario Montessori for members who wanted to implement the original approach used by Montessori. Since the 1970s Australia has had an affiliate AMI association that has organised AMI training courses which provide approved professional development for educators in order for teachers to be able to run a Montessori setting. Sydney Montessori Teachers Centre, established 2018, also provides AMI training courses in Australia.

Montessori Schools and Centres Australia (MSCA)
Established in 2019 MSCA's mission is to advance education by promoting the pedagogical principles and practice formulated by Montessori for the full development of the human being. Through uniting and serving the Montessori community in its endeavour to educate for peace. MSCA's objectives include supporting and encouraging the establishment and sustainability of bodies delivering Montessori education and programs to ensure more children have access to Montessori education in Australia. In addition to representing the collective interests of members to Government at all levels, other regulatory bodies, other relevant peak bodies, media, and the general public.

Sydney Montessori Training Centre and Montessori Institute provide Montessori teacher training. Other Montessori training can be utilised from online companies, such as, North American Montessori Centre (NAMC). However, notably only a few organisations

internationally and Montessori Institute in Australia run courses or professional development for leaders of Montessori settings. Due to the shortage of Montessori leadership and professional development opportunities in Australia, leaders of Montessori settings may undertake leadership training internationally, if at all. Examples of Montessori training and professional development include the Czech Republic AMI affiliate which ran the first International Montessori Leadership Congress in November 2018 and the first AMS Emerging Leaders Fellowship Program will begin in 2020 in the USA. An established leadership program in Australia is the Montessori Institute leadership course which offers to develop leadership skills and a general understanding of the key principles of Montessori. The Montessori Foundation in the USA has run programs for leaders since 2006.

In USA Montessori principals & directors have a large support network through Montessori Administrators Association (MAA), recently incorporated into AMI USA. Members of this email group are Montessori leaders and are provided with resources and mentoring on request and through online discussions. In Australia there are informal leadership network groups, such as NSW Montessori principals' meetings held each school term.

Examples of differences between Montessori training programs

Association Montessori Internationale (AMI)	Montessori Institute (formally MWEI)	North American Montessori Centre (NAMC)
Established in 1929, AMI states that it upholds Montessori's own standards to raise spiritual and intellectual values that all humans have.	Established in 1983, offers education, training, support and info relating to the Montessori approach.	Established in 1996, provide distance education Montessori programs.
Written/oral exams by external examiner	Written & oral exams with your tutor	No exams
Qualification recognised worldwide. 3-6 course accredited Australian National standards.	Qualification recognised worldwide. 3-6 course accredited to Australian National standards	Qualification recognised worldwide.
AMI has an international presence	MI - mainly Australian presence	NAMC has a global presence
Majority of instructors hold AMI qualifications (most undergoing 4 years of training)	Qualified instructors (undergo some training)	Instructors (some training)
Provide further Professional Development through conferences, international congresses and Educators without Frontiers	No further Professional Development provided	No further Professional Development provided
To deepen trainee's knowledge, they develop and create individual lesson plans and curriculum manuals for each area of development	Create a few lesson plans for each area of development	Given all lesson plans and manuals
First priority is always the child	Aim is to make Montessori approach accessible to everyone.	First priority is their trainees
30 weeks of face-to-face training: immersion (learning by doing), introduction & practice with specialised materials, discussions, network of colleagues during training	3 weeks of face-to-face training and external study: limited immersion & colleague network as all start at different times	External online study
Intensive observation training & teaching practice	Limited observation training & teaching practice	No observation training or teaching practice
Written assignments	Written assignments	Multiple choice questions

Ref: AMI (2021), MI (2018), NAMC, (2018)

Appendix 2

Study Participants Information

Project Title: "Montessori leadership philosophy re-examined and its influence on education quality as embodied in contemporary Montessori settings."

Researcher: Sarah Beresford-Jones.

Project Aim: The aim of this research is to investigate the Montessori approach to leadership. How the Montessori approach to leadership is practiced and effects quality of Montessori education through examining the perspectives of educators and leaders in Montessori settings.

Benefits of the Project: The information gained from the research will be used to understand how a Montessori leadership approach can be enacted successfully and what is considered quality Montessori education. Furthermore, highlighting if there are limits or difficulties to this enactment.

General Outline of the Project: In Australia there are in operation around 264 Montessori settings (ACECQA, 2012) effecting the potential of thousands of children, all led by a variety of leadership styles, and having varied outcomes and successes. The project will explore Montessori's approach to leadership from the perspective of educators, board members and leaders. Moreover, little empirical data-driven research has been completed in the Montessori leadership field and none within the Australian context. The study examines how leaders are influenced by stakeholder's perspectives, Montessori organisations' advice and government legislation and requirements. The study will outline core elements of the Montessori approach to education and philosophy and some established educational leadership theories that may align with Montessori leadership themes, such as the need for altruism, humility and patience. Through using a qualitative approach through distributing a questionnaire, the study seeks insights of the behaviour in leaders that support Montessori's vision. The anticipated outcome is that through re-examining Montessori's approach it will inform and expand current and future Montessori leadership and quality education.

Participant Involvement: Montessori leaders and educators who agree to participate in the research will be asked to:

1. Complete a questionnaire,
2. Supply comments to explain their views.

Participation in the research is completely voluntary and participants may, without any penalty, decline to take part or withdraw at any time without providing an explanation or refuse to answer a question.

Confidentiality: Only the researcher will have access to the individual information provided by participants. Privacy and confidentiality will be assured at all times. The research outcomes will be written up for publication. However, the privacy and confidentiality of individuals will be protected.

Anonymity: All reports and publications of the research will contain no information that can identify any individual and all information will be kept in the strictest confidence. The data collected will be secured, confidential and anonymous by removing identifiers and using pseudonyms.

Appendix 3

Study's Questionnaire Questions

Questionnaire Questions

1. How many years have you been involved in Montessori? *1-5, 6-20, over 20 years*
2. What areas have you completed Montessori training in*? 0-3, 3-6, 6-12, 12-18, leadership, other*
3. What other qualifications do you hold?
4. What position do you hold in your setting?
5. Have you held leadership positions before?
6. Explain the main areas that educators contribute to quality education in a Montessori setting?
7. Explain the main areas that leaders contribute to quality education in a Montessori setting?
8. How much does quality Montessori education rely on the educator? *Scale 1-10*
9. How much does quality Montessori education rely on an ordered prepared environment? *Scale 1-10*
10. How much does quality Montessori education rely on a balanced mixed age in environments? *Scale 1-10*
11. How much does quality Montessori education rely on planning reflecting and assessing each child's progress? *Scale 1-10*
12. Explain the main intrinsic attributes you believe a leader requires to implement a Montessori approach?
13. What are the values you have seen demonstrated regularly by your leader?
14. On the scale how much do you think government bodies affect how leadership is enacted in your setting?
15. In your experience what has been the largest influence on your leader's ability to implement a Montessori approach?
16. How does a leader support educator's professional growth and development?
17. What are two essential factors leaders utilise to lead a Montessori setting?

Appendix 4

Australian government leadership areas of focus

Areas of focus	AITSL	ACECQA
Leadership roles and responsibilities include	Promote equity/excellence Influencing, developing delivering on community expectations/government policy Effective leadership is distributed/ collaborative with teams led by the principal working together to accomplish vision/aims of the school	7.1.2 Systems in place to manage risk, enable effective management, operation of quality service. 7.2.2 The ed leader is supported (resources, capacity building, empowerment) leads the development and implementation of educational program and assessment/planning cycle 7.2.1 An effective self-assessment and quality improvement process in place. Role of Ed Leader: guiding/developing educators, families' understandings about play, leisure-based learning, significance of early years for child
Leader's skills and attributes	Effective leaders understand their impact. Leadership is contextualised learning-centred, responsive to diverse nature of schools. Practices/capabilities of leaders evolve through careers. Many successful leaders draw on same core leadership practices/ behaviours, with key personal qualities/ capabilities explaining significant variation in leadership effectiveness	Selecting an ed leader – communication/ interpersonal skills. Knowledge of leadership theory, use of range of styles. Critical thinking skills, ability to analyse/challenge conventional practice and ideas. Sense of purpose/direction, ability to influence. Willingness to mentor, support educators from diverse backgrounds, with varying levels of knowledge/ experience. Commitment to learning and participating in professional learning opportunities
Board	Contribute to development of a twenty-first century education system at local, national/ international levels.	7.1.3 Roles/responsibilities are clearly defined, understood, and support effective decision making, operation of service. 7.1.1 A statement of philosophy guides all aspects of the service's operations.
Educators	Creating and sustaining the conditions under which quality teaching and learning thrive	7.2.3 Educators, co-ordinators, staff members' performance is regularly evaluated, individual plans in place to support learning/development. 7.2 Effective leadership builds/promotes a positive organisational culture, PD community. Role of ed leader: collaborate with educators, curriculum direction/ guidance. Support educators to effectively implement cycle of planning to enhance programs/practices. Building knowledge, skills, professionalism of educators Build culture of professional inquiry with all to develop prof knowledge, reflect on practice, generate new ideas
Child centered	Raising student achievement at all levels and all stages	Role of Ed leader: lead the development and implementation of effective educational program Select ed leader - ensures that children's learning/ development guided by learning outcomes of approved learning frameworks. Comprehensive knowledge of theory relating to childhood ed/care (child dev, attachment, learning), professional standards, approved learning frameworks, contemporary understanding of evidence-based best practice approaches to teaching and learning

Appendix 5

Examples of Stakeholder Groups Linked with Montessori Settings.

The School Board/ Council/ Executive Committee	A parent run committee which has a pathway for leaders and educators to partner about centre or school matters with the parents and community. The influential figure who oversees a school is the President of the Board. Parent organisations were analysed from 1921 to 1991 in NSW and demonstrated that they have essential input into schools. The parent organisations establish solid community links which allow the school to support the community and vice-versa. In order to receive Australian Government funding, Independent schools, through the Board and leadership, have wide-ranging legislative requirements to comply with and must be not-for-profit institutions (ISCA, 2018).
The Education Directorate & Professional Teaching Standards of each state **Australian Children's Education & Care Quality Authority (ACECQA)**	The Department of Education, Skills and Employment is responsible for national policies and programs that help Australians' access quality and affordable early child care and childhood education. Primary schools go through the process of registering the school to have a licence to operate under the Education Act, this process includes submitting evidence on the leader, staff, facilities, safe, supportive environment, attendance, curriculum, discipline, buildings, financial reporting and educational reporting. ACECQA oversee the National Quality Standards in early childhood settings. Centres are inspected by regulatory authorities every 1 to 5 years and asked to improve in certain areas. Quality Area 7 is about Governance and Leadership.
Montessori Schools & Centres Australia (MSCA)	Established in 2019 MSCA's mission is to advance education by promoting the pedagogical principles and practice formulated by Montessori for the full development of the human being. Through uniting and serving the Montessori community in its endeavour to educate for peace. MSCA's objectives include representing the collective interests of members to Government at all levels, other regulatory bodies, other relevant peak bodies, media, and general public.
Association of Independent Schools (AIS)	AIS is the organisation which represents and supports independent schools in Australia. This is carried out through advice and professional development, along with other services. AIS, on behalf of over 480 independent school boards and principals, work with governments and statutory authorities.

Appendix 6

Examples of Leadership Development Programs in Australia

Early Childhood Australia (ECA) Leadership Program	A self-directed and short-term training for potential and current ECE leaders. Best-practice capability leadership framework, Leaders & managers benchmark develop & map PD skills. Self-paced -1 yr. Mapped to NQF, APST's & QIP. Creates individual PL Plan. Certificate on completion. 7 online training modules & webinars; Copy of L*eadership Capability Framework* and a 'how-to' guide; Online forum, Facebook group peer support. 6 key capabilities, 21 key aspects. Descriptors under 3 headings: lead self; lead with & for others; lead within/beyond organisation. 7 quality areas; educational program/practice; children's health/safety; physical environment; staff arrangements; relationships with children; collaborative partnerships with families and communities; leadership and service management.
Montessori Institute	The (non-award) Diploma of Montessori Leadership Practice offers people in leadership positions in Montessori, opportunity to gain a general understanding of the principles and practices of the Montessori approach. For specific Montessori knowledge in an area the participants can choose 2 curriculum areas for more in-depth study. 1 to 3 years to complete. 8 units, 2 sections: 4 Theory Units: 12 written assignments; 4 Montessori Practice Units, with 8 Assignments, Observations and 4 Intensive Block Workshops (min of 10 days). Study times: Theory/Curriculum Units 400 hours; Workshops/Observations 160 hours.
AIS Flagship	AIS offer a program for aspiring principals and senior leaders, The Flagship Program is designed to uncover the purpose and prepare the potential leader for their next leadership position. A year long program, it begins in December each year. Applications are invited from current senior leaders in schools across all sectors within Australia and beyond. Ten face-to-face days and three days of focused school visits, online meetings, ongoing journaling, pre-reading tasks, ten hours of Professional Companioning, Regular feedback on progress, summative presentation of the Professional Project, reflective paper.
AITSL through 360°	School Leader Self-Assessment Tool is an online questionnaire that allows those aspiring to the role of school leader or current leaders to reflect on their practice. They complete a questionnaire that is based on the Profiles leadership actions. This can be completed by individuals or a school team. Respondents receive a report that indicates where their current practice relates to the Profiles, identifying specific areas of strength and development. This tool allows respondents to: "view their developmental pathway; create a plan for learning/growth; access tools and resources to assist their leadership growth; and eventually compare their results over time" (AITSL, 2018).

Appendix 7

Examples of Overseas Leadership Programs

UK	36-hour assessment – mandatory 5-20-day in a school – final evaluation. (1 year).
Ontario	120 hours of theory – 60-hour leadership practical work – observed and mentored in school project.
New York District	14-month program (includes 6-week summer school and project at school)
USA – Montessori Foundation	Established 1992, in 2006 transitioned to online learning in Montessori leadership development, through presentations, resources, online discussions, conference call-ins, network of fellow Montessori school administrators.
American Montessori Society	Beginning 2020 - Emerging Leaders Fellowship Program is PD designed to develop the potential leadership positions in Montessori. Program is 1 year of structured learning & networking opportunities.
AMI	Mix of online and face to face delivery each Wednesday for 12 weeks, through presentations, discussions, breakout groups and observations in Montessori environments. Covers core considerations for administrators, your school as a community within a community, being an effective Montessori school administrator.

Appendix 8

CV Summary of researcher

I am fully committed to the values and concepts underpinning inclusive education. I have over 30 years' involvement in Montessori education and hold Montessori diplomas from birth to 12 years. Working as class director/guide, school leadership roles and inclusion coordinator. I keep up-to-date and informed about best practice, studied education philosophies, including Montessori's Theory, in great depth, and I know key educational legislation and government compliance in relation to educational settings for all ages.

Qualifications include Montessori Philosophy Research Studies: Australian Research Training Scholarship Program (2018 – 2021); Montessori Diplomas 0-3, 3-6, 6-12 years; Masters of Inclusive Education and Leadership; Bachelor of Teaching; Diploma of Counselling; Early Childhood Leadership; and Adult Training & Assessment.

Education includes study with Australian Research Training Program; Early Childhood Australia; Southern Cross Training; AMI; Griffith University; University of New England; University of Sydney; University of Canberra; Open Universities; Canberra Institute of Technology; PS College; NSW Education Standards Authority; Teachers Quality Institute; Queensland College of Teachers; CBD College; Leaderskill; Sydney Montessori Training Centre; Association of Independent Schools; Literacy and Numeracy Coaching Academy; Gateways Educator; Montessori Model United Nations; Child Protection Investigator; Montessori School Board Governance; Grief counselling; Alzheimer's UK and Australia.

Employment includes Intervention specialist for 5 to 18 years old; Indigenous tutorial assistance tutor, University of Sydney; Montessori classroom director/guide; Montessori deputy principal; Montessori inclusion coordinator/head of department at various schools; Montessori professional developer of various initiatives; published children's Montessori author.

Umbrella Organisations for Montessori in Australia

ACEQA: Australian Children's Education & Care Quailty Authority
national body established under national Law to support states & territories to deliver best practice regulation & ensure national consistency

DoE: Department of Education and Training.
Responsible for national policies & programs, for access to quality & affordable childcare, childhood/higher/vocational & international education and research

NQF: National Quality Framework
Established 2012, applies to most preschool/kindergarten/ out of school hours care services

ACARA: Australian curriculum, assessment & reporting authority
Improving quality & consistency of school education through a national curriculum & assessment, data collection & reporting

NAP: National Assessment program collects, analyses & reports nationally data on student achievement literacy, numeracy, science, ICT, civics & citizenships
NAPLAN: National Assessment Program - Literacy & Numeracy. Years 3, 5, 7 & 9 assessed in literacy & numeracy

AMI: Association Montessori Internationale
Established 1929 as history custodian of Montessori to maintain integrity of Montessori's work.

NQS: The National Quality Standards
Key aspect of NQF & sets a national benchamrk for ECE NQS links to national frameworks of children from birth to 12.

AITSL: Austraian Insitute for Teaching and Scool Leadership
Enhance quality of teaching & leadership through standards, excellence, PD, support teaching professions, funded by Australian government to provide leadership across Australia.

MSCA:
Montessori Schools and Centres in Australia. Maintains core communication with all Montessori programs.

EYLF: Early Years Learning Framework: 0-5 years: Belonging, Being & becoming
OSHC: Out of School Hours Care: My Time, Our Place

SMTC: Sydney Montessori Training Centre
MI: Montessori Institute
Providers of Montessori teacher training in Australia

QIP: Quality improvement Plan
as part of national regs to help providers self-assess performance & continuous improvemnt by schools in future improvements

NESA/TQI/VIT/QCT/TRBNT/ TRBSA/TRBTAS/TRBWA
Established by the government to strenghten the quality of the teaching workforce. Teachers go through an accrediation process to be able to teach in NSW.

AIS: Association of Indpentdent Schools
the peak body supporting and representing independent school education

NSIT: Natoinal School sImprovement Tool is a tool assiting schools to review/ reflect improvement efforts for teaching & learning

Principal standards: key elementes of quality leaderhip are described in standards about what principals are expected to know and to be able to do

Teacher standards: key elements of quality teaching are described in standards about what teachers are expected to know and be able to do

ECA: Early Childhood Australia
The peak advocacy organisation, acting in the interests of young children, their families and those in the early childhood field.

Appendix 10

Professional learning & development for teachers to maintain accreditation in Australia and New Zealand

AREA/FOCUS	**ACT** Teachers Quality Institute (TQI)	**NSW** NSW Education Standards Authority (NESA)	**QLD** Queensland College of Teachers (QCT)	**VIC** Victorian institute of Teachers (VIT)	**SA** Teachers Registration Board of SA (TRB)	**WA** Teachers Registration Board of WA (TRB)
Accreditation of Providers	TQI DOES accredit & endorse PL Confirming participant attendance [in 10 days]	NESA DOES accredit & endorse PL Confirming participant attendance [in 30 days]	QCT does NOT accredit or endorse PL	VIT does NOT accredit or endorse PL	TRB does NOT accredit or endorse PL	TRB does NOT accredit or endorse PL
States Program named	Professional Learning (PL)	Professional Development (PD)	Continuing Professional Development (CPD)	Professional Learning (PL)	Professional Learning (PL)	Professional Learning (PL)
Accreditation required by	All registered teachers	All registered teachers	All registered teachers Provisional registration no set # of CPD hours	All registered teachers	All registered teachers	Registered teachers Provisional registration still 20 hours per year
Activities NOT accredited	Staff meetings, planning or prep, assessments, extra-curricular activity **AND** First Aid, IT, Mandatory reporting, Workplace Health & Safety,	Staff meetings, planning or prep, assessments, extra-curricular activity	Staff meetings, planning or prep, assessments, extra-curricular activity	Staff meetings, planning or prep, assessments, extra-curricular activity	Staff meetings, planning or prep, assessments, extra-curricular activity	Staff meetings, planning or prep, assessments, extra-curricular activity
Hours required to be completed	20 hours per year (5 with AP)	20 hours per year (10 hours with AP) [maintenance period is 100 hours (50 AP) over 5 yrs FT/7 yrs PT/cas]	20 hours per year [100 hours over 5 yrs]	20 hours per year [100 hours over 5 yrs]	20 hours per year [60 hours over 3 yrs]	20 hours per year [60 hours over 3 yrs]
Hours to be accredited	1 day/online = 5 hrs [Minimum 2 hrs length]		NA	NA	NA	NA
Accredited hours for course developers	Claim 5 hours for research/preparation but NOT delivery		Claim hours for research/preparation AND delivery	Claim hours for research/preparation AND delivery	Claim hours for research/preparation AND delivery	Claim hours for research/preparation AND delivery
How long Course is accredited for?	1 year (apply to renew for an extra 1 year)	2 years (apply to renew for an extra 1 year)	NA	NA	NA	NA

	Apply from 14th January	Apply from 14th January				
Provider to keep Records for	18 months		NA	NA	NA	NA
Meeting: Australian Professional Teaching Standards **Professional standards for Principals** **Priority Areas**	Meets APTS or Meet APPS	Meets APTS or APPS priority areas are: delivery/assessment of NSW Curriculum or EYLF student mental health students with disability Aboriginal ed, support Aboriginal students	Meets APTS or APPS	Proficiency in APTS Maintain prof practice Suitability to teach PD activities – formal/ informal to improve teacher's knowledge, practice, competencies APST. PD must address 1 standard of 3 domains Professional knowledge practice/ engagement	Complete Mandatory Notification Training (7 hours CP). Complete min 60 hours of PL. Each PL activity must link to 1 of standards PL for registration purposes: Over/above normal expectations of teacher responsibilities/ role/referenced to APTS	Learning experiences aimed to improve the teacher's knowledge, practice, competencies in Professional Standard for Teachers in WA * (same as APST)
Conference/ Workshop program delivery	2 sentences describing workshop. Reference to particular standard. Focus/description relevant to workshop		NA	NA	NA	NA
Becoming a PL accredited provider ACT/NSW + What PL should cover QLD/VIC/SA/ WA	1.Download PLL Program Accreditation Guide Complete Registered Provider Application 2.Submit application- receive email with 6-digit TQI # & password 3.Log in & provide info about course/program: Administration (name, key words, duration, presenter name & quals) Links to APTS (career stage, domains, focus) Delivery (category, basis of program, summary, principles adult learners,	**Accreditation through AIS**, NSW DoEd, Catholic Schools **Principles of effective PD** (content focussed; sustained duration; show coherence; recognise experience/ knowledge; job embedded; model effective practice; collaboration; reflect) **Meet criteria for NESA Accredited PD** (directly address priority areas; meet subject/ content specific criteria for that priority area; include content/ activities	**Range of CPD activities** Balance of employer directed/school supported Standards covered Assessment/behaviour management/inclusion/ curriculum/students with disability/ professional standards/ student development, care/ teach, learn strategies/ use data	**Principles effective PL** Focus on improving outcomes for learners relevant to needs Informed by best available research Collaborative/provides opportunities for reflection/feedback Embedded in practice Ways to measure impact of new learning Integrated with other strategies Supported and shared **Inquiry approach**	**Range of PL activities** eLearning modules and online courses Participating in a webinar or online conference Community of Practice Being part of PL team/community (usually teachers in a school partnership who teach same subject/ want to share ideas, strategies, resources) Participate in group project.	**Formal activities:** PD providers: online, workshops, seminars. school-based/ employer-provided PD: PD days, action research, mentoring a junior colleague give conference/ workshop presentations or writing for publication **Informal activities:** professional reading

	reflections, collective inquiry, collaboration) Expected outcomes (sequence of PL) 4.Submit application (3 weeks) to use TQI logo/ public register of PD. Provide organisational/ administrative info - education/management capacity. Providers give info about expertise/ qualifications, teacher PL functions/ programs, Insurance cover policies for statutory obligations relevant to PL	aligned with relevant Standard Descriptors at a level, e.g. Proficient Course presenters have quals/ experience Policies/procedures for quality assurance, continually improving, evaluation of courses Evidence of recent delivery of PD to teachers, demonstrates a positive impact on teacher prac/ students Current, accurate, secure admin/records Appropriate/ethical strategies to market/ advert PD. Insurance cover Submit *Fit & Proper Persons.* Copy of relevant policies. Authorised Providers submit (4 weeks): title/ description/ priority area/ Standard Desc		Establish content and context for learning Define question for inquiry/undertake PL Apply knowledge to teaching practice through action plan Implement plan Evaluate effectiveness practice, assess/ reflect **Reflection** What have you learnt from PD to develop your practice/ knowledge How will you apply learnings to teaching practice? How will you gather/ analyse evidence of impact of new learning? How could ideas be shared with others? What obstacles might apply to these ideas?		professional meetings of teacher PL/reflect on prof practice participation in development of policy or practice in school or a wider context
Particular Areas or Priority Areas for PL courses	Contain significant intellectual/professional content Deal primarily with matters related to the practice/teach content Address a teacher's identified PD/career stage requirements Address individual, team, school, system, employer priorities	Delivery/assessment of NSW Curriculum/EYLF Student mental health Students with disability Aboriginal education, Supporting Aboriginal students **Elective PD criteria**: any non-accredited course in a priority area integrating ICT/teaching practice	APST Standard 6. Identify learning needs. Enable teachers to challenge/ develop ideas inform, question assumptions/ practices, extend knowledge, Skills deepen practice understanding. Flexible, collaborative, context relevant to teacher's prof practice.	Formal courses: Seminars/conferences, online learning PD days at school Mentoring colleagues Action research projects within school Short courses, Post grad study Research participation Informal activities: Professional reading	TRB defines PL as any planned or unplanned learning opportunities, processes or experiences in which a teacher engages, both within their work time/ their own time, that: Continually builds their capacity as a professional	

	Assist teachers to respond to student learning needs.	Legislative requirement (e.g. anaphylaxis, child protection, sector/ school policy etc) Meeting professional ethics/responsibilities, Meet teacher accredit requirements Strategies for effective engagement with parents/carers/ community mentoring, coaching, professional dialogue support teach practice educational leadership relevant further study professional commitment activities.	Teacher's professionalism Strengthen teacher practice/impact student learning. Reflect on practice Records of timeframe, provider, type of activity & relationship between activity/APST. Appropriateness for teacher's role, Achievement of identified development goals Evidence includes certificates, school verification, document reflections	Professional talks with colleagues focusing on improving practice/ outcomes of learners Resource research (prof associations) Participation in ed related boards, panels, committees. Special Needs Plan. PD activities relating to learners with disability, consider your teaching context, your learners' characteristics/needs, own level of learning; no 'one size fits all' approach, activities differ from teachers/ schools	Furthers professional growth Assists in supporting learning of students, now or in the future.	

*WA introduced Professional Standard for Teachers in WA. The differences noted with the Australian Professional Standard for Teachers are

	WA	**APST**
4.2	Manage a learning environment	Manage classroom activities

NB: Current advice from NESA is completion of updated criteria is due March 2021.

AREA/FOCUS	**NT** Teacher Registration Board of Northern Territory (TRB) Quality Teaching Committee (QTC)	**TAS** Teacher Registration Board of Tasmania (TRB)	**NEW ZEALAND** Teaching Council Aotearoa New Zealand (Teaching Council)
Accreditation of providers	TRB NT does NOT accredit or endorse PL	TRB TAS does NOT accredit or endorse PL	Teaching Council does NOT accredit or endorse PL
States Program named	Professional Development (PD)		Professional Growth Cycle
Accreditation required by	All registered teachers	NA	All registered teachers
Activities NOT accredited	**Once** in each 5 years count hours of - Mandatory reporting	NA	
Hours required to be completed	20 hours per year - 100 hours over 5 years	Teacher registration is for 5 years. Fee paid annually.	No legislation requirement for specific # of hours of PL, requirement for satisfactory PL is by annual participation in professional growth cycle as endorsed by professional leaders. Teacher registration is for 1 year. Fee paid annually.
Hours to be accredited	1 day/online = 6 hours	NA	NA
Accredited hours for course developers	Claim hours for research/ preparation & delivery of PD	NA	NA
Meeting: Australian Professional Teaching Standards **Professional standards for Principals**	Meets APTS or Meet APPS	Meets APTS or APPS	Ensure teachers are able to demonstrate they meet *Standards | Ngā Paerewa*. Demonstrate commitment to tangata whenuatanga and Te Tiriti o Waitangi partnership in Aotearoa NZ. Use inquiry, collaborative problem-solving, professional learning to improve professional capability to impact on learning/achievement of all learners. Establish/maintain professional relationships/behaviours focused on learning/wellbeing of learners. Develop a culture focused on learning, characterised by respect, safety, inclusion, empathy, collaboration. Design learning based on curriculum/pedagogical knowledge, assessment info, understanding of learner's strengths, interests, needs, identities, languages, cultures. Teach, respond to learners in

			a knowledgeable/ adaptive way to progress their learning at an appropriate depth/pace
Conference/ Workshop program	Hours counted in accordance with # of days/hours attended		
Becoming a PL accredited provider **ACT/NSW +** **What PL should cover** **QLD/VIC/SA/ WA**	PD links to improving learning outcomes. Work through feedback, evaluating, setting goals, respond to future development needs. Attributes for effective PD: relevant, data driven, ongoing, collaborative, differentiated, experimental, sustainable, supported by time, resources, provided in safe environment, purposeful, evaluated, linked to outcomes. Principles for PD include ed outcomes at centre, align with APPT, empowering individual agency, comprehensive development/ learning, evidence-based practice, embedding accountability/ critically reflect practice	Hold current/valid registration before being employed/engaged to teach. Uphold Code of Professional Ethics for Teaching Profession, Tasmania. Ensure you satisfy a standard of behaviour generally expected of a teacher. Ensure you maintain your teaching competence to a standard that satisfies TRB of Tasmania that you are fit to be a teacher. Teaching competence is assessed against APST.	Does the course enable teachers to identify and respond appropriately to learners with diverse and additional learning needs, and enable teachers to identify and respond appropriately to the additional learning and behavioural needs of learners with dyslexia, dyspraxia, autism spectrum disorders.
Particular areas or priority areas for PL courses	PD is planned, considered, ongoing practice for all teachers. Annual planning process should include minimum requirements/ framework principles, be undertaken in collaboration with supervisors/ peers. Self-reflection to identify PD goals. Use of a tool - AITSL self-assessment tool support teachers to critically reflect on practice/identify PD. Planning considerations for teaching & learning also includes critically reflect on practice & identifying needs of your students/employers		Professional leader endorses teacher's progress in annual cycle based on their professional judgement - teacher is making progress according to agreed goals for their professional growth/learning. Leaders ensure they use networks beyond organisation for expert advice or access to resources relevant to curriculum/ teaching practice to enrich their/colleagues practice. In addition, they ensure that knowledge to improve learning is built and shared.

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