

Montessori Keystones: 2023 Summer

Montessori said, “What I want now is a body of colleagues, research workers, who will examine what I have already done, apply my principles as far as I have gone, not in a spirit of opposition or conviction, but as a matter of pure experiment.”

(Kramer, 1976, p. 262)

Recent Australian Research Snapshots:

Montessori education in Australian schools: Charting a path.

Steiner: The curation of contemporary education.

Possible intervention strategies in Montessori classrooms

Montessori philosophy on leadership reexamined:

How leaders influence delivery of quality education

(Part 2) – includes: Montessori’s areas of quality [p. 18];

Montessori optimal developmental outcomes [p. 20]; Montessori UK

quality standards [p.20]; Aotearoa NZ quality elements [p. 21];

American Montessori standards [p.23]; Association Montessori

Internationale global accreditation [p.25]; and

ACECQA benchmarks [p. 28].

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Do Montessorians need to carry out research?

Montessori was keen on research yet Standing (1957) stated that “less than thirty per cent of her research have as yet found their way into print” (p. xix), although Montessori carried out a “continual stream of research... carried on during the rest of her life” (p. 64). Montessori’s research “on the child’s development in these earliest years have been published under the title of ‘The Absorbent Mind’ (p. 69). “For fully forty years, now in this country, now in that; in favourable circumstances or difficult; in peacetime or in war — ceaselessly, calmly, undeterred by calamities private or national—Dr. Montessori went on steadily with her research. There is no single person living who knows the extent of them. They have never been collected together in one place” (p. 67). Standing stated that “lavish care and expenditure, the long and patient scientific research has gone into the creation of this *new world* for the *new children*” (p. 186).

Kramer (1976) revealed Montessori carried out “anthropological research in the elementary school” (p. 94). Montessori “had discussed with McClure for establishing in America a training institute for research and teaching in her methods” (p. 172). She had “plans for establishing an international educational research institution” (p. 187). Montessori argued that her experiences, “far from being rigid, were logical conclusions corresponding to the application of an exact and positive method. The behaviour of the children, being uncontrolled by rigid research, gave new evidence, something living, which issued from my experiments as a spring of water gushes from a rock” (p. 305). When Montessori was almost 50 she said, “*I don't know what to do. There is so much of it, and nobody will ever collaborate. Either they accept what I say, and ask for more, or else they waste precious time in criticizing. What I want now is a body of colleagues, research workers, who will examine what I have already done, apply my principles as far as I have gone, not in a spirit of opposition or conviction, but as a matter of pure experiment. Then they can help me with constructive criticism, after, not before, the event. I have never yet had anyone-starting from my own previous body of knowledge-work shoulder to shoulder with me in a scientific independence. Now that doctors and psychologists are beginning to take an interest in normal children, perhaps some of them will help me. At present I am in a kind of isolation, which is the last thing I desire. Questo lavoro P troppo per una persone sola-sono troppo sola nel mondo*” (p. 262). Google translation – ‘This job is too much for one person – I’m too alone in the world’.

Mario Montessori (1976) stated, “*Laboratory experimentation, however, has practical limitations. That is why ways are sought to retain the advantages of the experimental method in the systematic study of phenomena which cannot be studied in the laboratory. One of the most important ways of doing this is through field experiments, where field is a normal environment, e.g., a school. Even closer to everyday experience is so-called action-research in which a community (a school) cooperates with experts in research programme. These experts not only investigate existing conditions but seek to improve them. Such research therefore has a normative character. Another method of investigation outside of the laboratory is to make the observer or researcher a member of group under observation. However, making and recording observations, it should be remembered, is a very difficult task for most people. If teachers are required to do this, it is important to give considerable attention to such matters in the training... All the scientific methods described above are compatible with Montessori education*” (p. 42).

Need more inspiration to conduct Montessori research? “When she spoke of the child as the teacher rather than the taught, Montessori had in mind her own cognitive style as a researcher, which was to make intuitive conclusions from her observations” (Kramer, 1976, p. 365). When asked to sum up her educational philosophy, she did so in two words: “Attendere, osservando - watch and wait” (p. 365). Standing (1956) stated that “her research did, in fact, lead her in two directions: forward towards adolescence; and backward towards the newly born child” (p. 68). “The publication of certain research which he (Mario) and Dr. Montessori worked out together,” (p. 72). Adding “scientifically tested plan of cosmic education... has already proved itself to be the only path on which our feet can firmly tread in further educational research” (p. 366).

References:

- Kramer, R. (1976). *Maria Montessori: A biography*. USA: Perseus Publishing.
Montessori, Mario. (1976). *Education for human development: Understanding Montessori*. NY: Schocken.
Standing, E. M. (1957). *Maria Montessori: Her life and work*. New York: Plume Book. Penguin Group.

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The benchmarks for acceptance of a study or article are twofold - has the research been conducted in Oceania and will the manuscript make a useful contribution to the knowledge base or understanding of the subject matter. Or perhaps you have not conducted a study but would like to do a Montessori book review. It need not be complete research, after all research is an incomplete, on-going project by its nature. The moral rights of the authors have been asserted. Montessori Keystones provides insights into ongoing Montessori trends, themes and developments impacting the global Montessori community. Maria Montessori considered herself a global citizen (Standing, 1967, p. 361). Montessori (1949) said, "in a word, contemporary people have citizenship in the great nation of humanity. It is absurd to believe that such people, endowed with powers superior to those of nature, should be Dutch or French or English or Italian. They are the new citizen of the new world - a citizen of the universe" (p. 25). Montessori stated that "To think and to wish is not enough. It is action which counts" (Montessori, 1913, p. 171). New Montessori researchers will be supported to conduct a Montessori Action Research Study which includes an abstract, introduction to their study, a literature review, ethical considerations, data collection through work and observations in the class and reflecting on the data gathered and findings they reveal. Or, if ready with projects, can submit their research to be peer reviewed and edited for possible inclusion.

Montessori Keystones needs your research contributions to take action that counts!

How you can contribute

Academic writing is the formal writing style used to write scholarly materials. There are many types of academic writing to present your work:

- Article layout: abstract, introduction, methods, results, discussion, and references
- Montessori Action Research Study layout: abstract, why do I need to research this issue, what others have said, ethical considerations, data collection, findings, changed my practice in x way.
- Book report/review: short summary of book, background info about author and topic, and an evaluation of the content.
- Conference paper: abstract, introduction, methods, results, discussion, conclusion, and acknowledgments.
- Essay: layout is generally main idea, evidence, conclusion.
- Literary criticism: comparison, analysis, interpretation/evaluation of works of literature.
- Synopsis of an experience/knowledge: introduction, main points, reflections, changed my practice

Helpful hints if you would like to write a little more clearly and academically

Paragraphs: 150 to 200 words per paragraph (never below 50 words) | Topic sentence — body (argument/detailed explanation) | Tokens — evidence, examples, supporting main argument | Final sentence — Sums up paragraph conclusion/signal implication of findings.

Sentences: Average of 20 words per sentence but with a variety of sentence lengths/structures | Use active verbs with real subjects | Keep the subject, verb, and object (SVO) close together and clearly linked | Qualifying clauses placed at the beginning or end of sentences.

Does a paragraph or sentence do the BBC: *Build* your argument, advance readers' understanding, strike right tone | *Blur* your argument, repeat material/waffle | *Corrode* text, include irrelevant/wrong material.

Overall: Use a formal tone (no slang, cliches) | Use precise language to convey meaning | Use third person point of view/facts rather than give advice | Research focus by answering a specific question | Organise info logically in a linear fashion using headings | Properly cite all sources/include reference section | Stand back and ask — Is this text attractive, involving, varied and interesting.

Recent Australian Research Snapshot

Montessori education in Australian schools: Charting a path. (Eacott, Rivera, Wainer & Raad, 2022).

The study is part of the Steiner and Montessori Education Australia Leadership (SMEAL) Project under the auspices of the University of New South Wales and Gonski Institute of Education. Although the four researchers have no Montessori experience, they do have a broad range of knowledge and include doctoral candidates, an industrial engineer with a Master of Public Policy, a traditional teacher with a Master of Teaching, an architect holding a Master of City Analytics, and led by a Professor of Education.

The study recruited 20 Montessori school leaders who participated in a 45-minute online interview. In addition, they utilised ACARA school profiles to find the necessary data. The focus was on the 37 Australian Montessori schools but did not include any early childhood settings. The aim of the report was to “stimulate a conversation of where school-based Montessori education is and where it is going in the Australian context” (p. 2). The report states that “this initial work is the first step in a long-term project focused on building alternative school systems” (p. 25). The study “identified a range of potential opportunities for continuous improvement within and across Montessori schools and both national bodies. These opportunities aim to strengthen the position of Montessori education within the Australian context and lay the foundations for expanding provision to all those who seek a Montessori education. Many of these opportunities require major cultural change and would require several years to implement” (p.25). The study found that –

91% of the 37 schools identifying as Montessori schools in Australia were in major cities

Schools employ 482 teachers with 479 non-teaching staff to support 3,867 students

1% are Indigenous, 27% have language other than English, and 51% are boys

46% of these Montessori schools are both primary and secondary

Montessori schools, students & staff make up less than 1% of mainstream Australian schools, however they make up around 4% of the independent school's sector

Since 2014, around 12 Montessori students each year (7 being the lowest, in 2014, gradually increasing to 26 the highest number in one year in 2019) have completed senior secondary schooling at Montessori settings, with 48 per cent awarded senior school certificates. NAPLAN results from

2014 to 2019 highlight that “Montessori schools consistently perform at a standard higher than national average” (p. 7).

The study started exploring what it means to lead a contemporary Montessori school in Australia - what is Montessori school-based education (Montessori name, dual national bodies without the a clear demarcation of roles and responsibilities, alternative provision); building the collective (the need for advocacy, networking for communities, from data to evidence); and providing quality schooling (high quality staff, accessibility of training, growth with integrity).

The percentage of growth in enrolments reveals that they have increased by 15% in the Catholic sector, 20% in Government, 21% in National, 32% in the independent sector, 34% in Montessori schools and 42% in Steiner schools.

The project highlights various points of interest in the summaries:

Data collection, curation, and dissemination for advocacy, parents, government to build understanding of Montessori approach in broader community, and its impact on student outcomes - this is dependent on integrity of schools against the Montessori approach.

Balance viability of schools (e.g., finances) with integrity to Montessori philosophy

Quality assurance balancing fidelity and reflection

Capacity building to showcase impact on student learning

Professional learning that is high quality, affordable, accessible for nearly 1000 staff

Demonstrate impact of Montessori education (identify/develop measures to capture impact)

Acquire school-level or aggregate resources leading to more efficiency

Greater sharing within/across schools of practice to streamline regulation/accreditation changes to reduce administrative time

Dual national bodies need certainty regarding roles as attempts to provide a set of principles of practice is limited due to agreement among Montessori community therefore difficult to advocate on behalf of schools.

Less frequent changes in school board composition to keep knowledge/training

Quality of Montessori schools is dependent on quality of staff – training should be available at right time/cost to be accessible to all. Montessori training is variable in schools.

Montessori approach is a systematic framing for teaching focusing on growth of child as an individual and prepared environment.

There is no trademark on the label 'Montessori'.

The report then offers several scopes of work to build from, refine, or even refute in moving forward:

- Building systemic supports and structures (review existing supports/structures provided to schools; initiate support structures to achieve efficiencies for schools/improve outcomes; prioritise data/evidence needed to advocate for Montessori education)
- Organising schools for high impact (agreed upon measures of Montessori education; sustainable quality assurance processes to Montessori; embed school renewal (quality improvement and reflection) in process.
- Preparing and supporting high-impact educators (review existing teacher training (pre and in-service) and related costing; audit school requirements for training (pre- and in-service) nationally; identify inconsistencies in expectations and gaps in provision.

If you would like to read the full report:

Eacott, S., Rivera, F. M., Wainer, C., & Raad, A. (2021). *Montessori Education in Australian schools: Charting a path*. UNSW Sydney. Retrieved from: https://msca.edu.au/wp-content/uploads/2022/03/eacott_montessori_school_education_australia_final_report_jan_2022.pdf

🔗 Recent Australian Research Snapshot 🔗

The state of Steiner education in schools in Australia
by (Eacott & Rivera, 2021).

It is interesting to note that before the study 'Montessori education in Australian schools: Charting a path' (2022). Eacott & Rivera (2021) carried out a similar study on Steiner Education Australia (SEA). The research was funded by SEA and was produced under the auspices of the University of New South Wales and Gonski Institute of Education by two individuals who have no Steiner experience, but a broad range of knowledge, an industrial engineer with a Master of Public Policy and a Professor of Education. The study recruited 24 Steiner school leaders who participated in a 45-minute online interview as part of the Steiner and Montessori Education Australia Leadership

(SMEAL) Project. For interested Montessorians a short comparison on some of the areas covered in the study are below:

Area	Montessori	Steiner	Mainstream
# of schools	36	47	9,581
# of students	3,867	9,358	4,030,717
% of student enrolled in schools	0.1%	0.35%	65%
% of Indigenous students	1%	5%	6%
% of language other than English	27%	14%	23%
# of staff	961	26,060	447,905
% of schools in major cities	91%	43%	36%

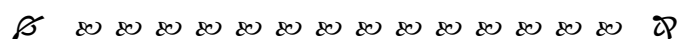
The Australian Steiner Curriculum Framework and the Australian Montessori Curriculum Framework are two of only three alternate national curriculum frameworks assessed as comparable with the Australian Curriculum. In doing so, it is one of the only national Government endorsed Steiner and Montessori curriculum frameworks globally.

The report on SEA summarises that there is a need to consider:

- Principles or prescription (what is Steiner? The possibility of dogma; renewal not revolution)
- Distinctions or difference (overcoming exceptionalism; myth-busting stereotypes, different not better)
- Pedagogy for the 20th or 21st Century (a pedagogy for today’s world; authenticity in instruction; capturing the impact of schooling)
- Enduring tensions and pressure (educational administration; attracting/retaining quality educators; telling the story of Steiner education).

To read the full report:

Eacott, S., & Rivera, F. M. (2021). Steiner: The curation of contemporary education. Steiner Education Australia, the Gonski Institute for Education and UNSW Sydney.



*Possible intervention strategies in Montessori classrooms.
(Beresford-Jones, 2023).*

A recent study was conducted, by a Montessorian, in an Australian reading clinic to answer the question, ‘what increase of literacy knowledge and skills do children with challenges gain through participating in an intervention program?’ Beresford-Jones (2023). The study’s aim was to demonstrate the children’s progression, whether a diagnosis made a difference, and to see if some of it could be introduced into a Montessori classroom as a strategy to support low readers intervention.

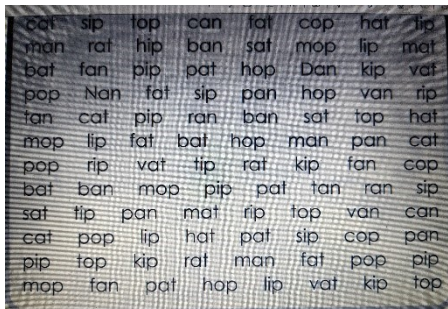
However, this study can be viewed by Montessori educators as possible intervention strategies and some parts of the program could be utilised in Montessori settings. The best work carried out by the child is learning the sounds of the letters especially the vowels.

	Clinic	Montessori
Children attended	2 or 3 school terms	36 school terms - at least
Children attended	twice weekly one-hour sessions, one-to-one basis	school day on one-to-one, peer teaching, small group lessons
# of children	87 children	3,867 children attend 37 Australian Montessori schools
Australian National Curriculum for English	Covers most	Covers all
for all subjects	Covers none	Covers all

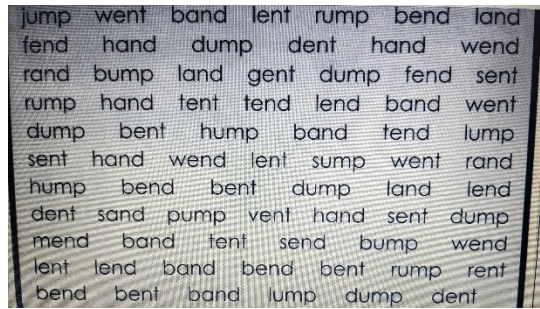
Three areas of the AWS program content that could be utilised for particular children requiring high intervention in Montessori settings:

1. Using the letter tiles to complete a word chain which may just change one letter to begin with, e.g., bed, bad, bid, bit, bat, bet.
2. Practicing fluent reading of words by reading as many words as possible from a sheet of about 60 words in 60 seconds by breaking them down into their parts and then speed reading, e.g., cat, cop, sip, man, rat, mop, rip, can. The child’s progress is charted to show the child their progression. Children confirmed they felt that this particular exercise helped them the most with their school work. The fact that it only takes 1 minute to complete the exercise makes it a very easy intervention to utilise in a Montessori classroom.

Fluency sheet level 1



Fluency sheet level 5

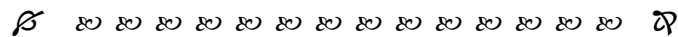


3. Direct instruction to learn the common challenging/high-frequency words, such as ‘said’ or ‘goes’ or ‘Wednesday’.

The big differences between the letter tiles and moveable alphabet include the colour coding and the tiles also put 2 and 3 letters together on one tile to make diagraphs and trigraphs, e.g., ‘ing’ and ‘ch’.

To see the full study:

Beresford-Jones, S. (2023). *Reading intervention: how do children progress when working through the Agility with Sound Program?* Montessori Research Australia. Published: Montessori Progress



Montessori philosophy on leadership re-examined: How leaders influence delivery of quality education [Part 2]

By Sarah Beresford-Jones (2021)

[In fulfillment of sponsorship by Australian Government Research Training Program]

Keywords: *Montessori leadership, Montessori philosophy, quality, Montessori education*

Abstract:

In 2021 an empirical data-driven research study was conducted to explore the substance of Montessori's theory and how it has been embedded over time, especially in school leadership. The study 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. These fundamental quality elements are underpinned by Montessori's theories of the human tendencies, the absorbent mind, planes of development and sensitive periods. Montessori was specific on what was necessary to open and lead a Montessori school. She stated that leaders can lead a Montessori setting after completing Montessori training and having had experience in a Montessori classroom.

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.

Introduction to the Research

“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)

“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 explored 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.

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). 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) the only article specific to leadership. However, five theses on Montessori leadership were retrieved through the AMS website (AMS, 2020) and Google Scholar. All these studies were all carried out in USA with past and current American leaders of Montessori settings. In contrast this specific study 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. Some of the findings revealed that there are some educational leadership theories that may align somewhat with Montessori principles, however there is only ONE theory that aligns completely with Montessori’s vision and that is Montessori’s own theory of child development, incorporating the prepared adult.

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 maintain 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'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 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 dilemmas 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*.

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).

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	<p>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).</p> <p>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.</p> <p>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.</p> <p>Observes often and carefully and acts as a role model.</p> <p>Love of learning. Thriving on new discoveries. Use mistakes as learning time</p> <p>Encourages/uses initiative, independence, self-reliance, self-control, creativity</p>

	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 " <i>which satisfies his needs, and to remove obstacles which may bar his way to perfection</i> " (Montessori, 1942/1970, p. 248). [Obstacles is giving too 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	<i>"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"</i> (Montessori, 1989, p. 30) <i>"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"</i> (p. 65). <i>"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 them to these results"</i> (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) <i>"to them falls the task of educating their children, of correcting defects"</i> (Mario, 1956 p.107). <i>"the new education prepares an adaptive environment for the child and recognises in general that they love work and order for themselves... respect</i>

	<p><i>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)</i></p> <p><i>“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)</i></p> <p><i>“when a child sees a pretty flower and wants to know 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></p> <p><i>“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)</i></p> <p>An effective partnership with parents to support the child.</p>
Materials	<p><i>“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)</i></p> <p>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</p> <p>Principle of isolation of a difficulty to practice.</p> <p>Provides a child with opportunities of movement, supports freedom & limits</p>
Supported by principles	<p><i>Absorbent Mind</i> Child’s mind from birth to 6 years absorbing knowledge without any implicit teaching (Kramer, 1967).</p> <p><i>Sensitive Periods</i> 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).</p> <p><i>Human Tendencies</i> 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.</p> <p><i>Planes of Development</i> 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</p>

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	<i>“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”</i>	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. Understanding actions. Service. Child becomes a moral person/ develops love of humanity	Social development is closely intertwined with the other dimensions of personality development. 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	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	Materials are displayed in an orderly way, well maintained, complete.
Activities/materials	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	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 Safeguarding	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 country, recognising 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, Mission, and Vision	Mission/ vision are student-centered/ guided by Montessori philosophy. Establishes/ communicates shared philosophy to inform facets of culture, operation/ 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/ monitor/ 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/ measurable learner outcomes. Students actively engage in learning process, exhibit joy in learning, apply their knowledge/skills to real-world situations.	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.
Standard 4 Doc & Use Results (Learner Outcomes)	Quality Montessori school enacts ongoing assessment system that monitors/ documents learner outcomes using 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 teachers, admin, staff receive info about student's disability-related needs. Provide plan retention of student records if closing school. Maintains/provides families of students with disabilities, list of professional support services/ agencies in 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

	<p>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</p>
Prepared environment/ in and outdoors	<p>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.</p>
Children’s work	<p>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.</p>
Personnel	<p>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.</p>
Governance/ Administration	<p>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</p>
Intangible but essential characteristics	<p>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.</p>

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.

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	Optimal Development Outcomes	ME UK standards	MANZ Journey to Excellence	AMS Standards	AMI Global Standards
Prepared adults Montessori trained leader/ educators	Montessori training of leaders/ educators	Montessori trained leaders/ educators	Montessori qualifications for educators	All non- credentialed staff receive orientation to Montessori	Educator Montessori trained. Leader has knowledge of Montessori
Observations		Observations	Observations	Class observations	Observation as foundation tool
Individual learning	Individual initiatives		Diverse learners	Student center/ 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 conditions, quality of educators,	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) development of professionals (through evaluation/plan for PD)	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 leadership practice/ behaviour,

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

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.

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 there are well-resourced classes. Robinson (2007) explored 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 ‘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 12 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 they described 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). 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).

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 the principles and practices including how to prepare the environment, conduct observations and understand the individual, and importance of maintaining multi-aged classes. The educators support the uninterrupted work periods, maintaining 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 setting. 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 take care with their decisions of which educators are assigned to which classes. Leaders needed to retain teachers, create opportunities for professional development so leading to an educator's improvement. Between 2008 and 2010, the

authors found good leaders manage to employ and support educators through allocating resources required, budgets in order to keep environments functional and maintain a positive work place.

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).

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 a child's path and might only give them an adult environment where nothing is adapted to their size, so the child must fight this unawareness in adults (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 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 9 (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, particularly, 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 reveals the knowledge that leadership impacts children, staff, and families. Therefore, 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.

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 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 a 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 finding 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, rural settings because they play a key role in establishing and fostering a school climate for learning and achievement to flourish” (p. 53).

Quality Education in Early Childhood, Schools, and Montessori Settings

The aims of the study were 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). 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.

[Part III will be published in the Autumn 2023 edition]

The Thesis Statement can be downloaded in its entirety from: <https://www.scribd.com/document/520490536/Montessori-Leadership-and-Education-Quality-Thesis-Statement-2021>



References

- American Montessori Society (AMS). (2021). *Code of Ethics*. Retrieved from: <https://amshq.org/>
- Association Montessori Internationale (AMI USA). (2021). *Bold Goal Initiative*. Retrieved from: <https://montessori-ami.org/news/ami%E2%80%99s-bold-goal>
- Australian Children's Education and Care Quality Authority (ACECQA). (2021). *National registers*. Retrieved from: www.acecqa.gov.au/resources/national-registers
- Connolly, M., James, C., & Fertig, M. (2017). The difference between educational management and educational leadership and the importance of educational responsibility. *Educational Management Administration & Leadership*, 1(16).
- Cossentino, J., & Brown, K. (2017). What's going on in this (developmental) classroom? *The Developmental Environmental Rating Scale (DERS) Working Paper, 11*. National Centre for Montessori in the Public Sector: USA.
- Feez, S. (2013). *Montessori: The Australian Story*. Sydney: UNSW Press.
- Fullan, M. (2010). *Leading in a culture of change*. San Francisco: Jossey-Bass
- Fullan, M. (2014). *The principal: Maximizing impact*. San Francisco: Jossey-Bass.
- Gandhi, M. (1946/2012). *Gandhi: Radical wisdom for a changing world*. Watkins.
- Government of Western Australia, Department of Education Skills and Employment. (DESE WA). (2019). *Early childhood branch*. Retrieved from: <https://det.wa.edu.au/curriculum-support/Earlychildhood/detems/navigation/initiatives/national-quality-standard/>
- Haines, A. (2000). *Montessori optimal development outcomes*. AMI Journal: 2017-2018 Double Issue, 18-44. Netherlands: AMI
- Howieson, A. (1984). *You can't kill the spirit*. Frome Newsletter, 1984.
- Huppert, F. A., & Johnson, D. M. (2010). A controlled trial of mindfulness training in schools: The importance of practice for an impact on well-being. *The Journal of Positive Psychology*, 5(4), 264-274.
- Independent Schools of Australia (ISCA). (2018). Independent Schools Council of Australia. Retrieved from: Isca.edu.au/about-independent-schools/autonomy-and-accountability
- Joosten, A. M. (1970). *Foundations of Montessori Pedagogy*. India: Indian Montessori Training Courses.
- Kouzes, J. M. & Posner, B. Z. (2007). *The five practice of exemplary leadership*. In Jossey-Bass reader on educational leadership. 63-74. San Francisco: Jossey Bass.
- Kramer, R. (1976). *Maria Montessori: A biography*. USA: Perseus Publishing.
- Lillard, A. (2005). *Montessori: The science behind the genius*. New York: Oxford University Press.

- Lillard, A. (2018). Rethinking education: Montessori's approach. *Current Directions in Psychological Science*, (27)6. 395–400. Sage Publications.
- McKenzie, G. K. (1994). *Instructional leadership practices of Montessori public school principals: The Montessori teachers' perspective* (Doctoral Thesis), USA: Texas Tech University.
- McKenzie, M., & Kernig, W. (1975). *The challenge of informal education*. London: Darton, Longman, & Todd
- Montessori, M. (1913/1965). *The Montessori method: Scientific pedagogy as applied to child education in the Children's Houses*. New York: Schocken Books.
- Montessori, M. (1931/2017). *Maria Montessori speaks to parents: A selection of articles*. Montessori-Pierson
- Montessori, M. (1936/1983). *The secret of childhood*. London: Sangham Books Ltd.
- Montessori, M. (1942/1970). How it all happened: Summary of talk to students January 6, describing first Casa dei Bambini. *Communications: Journal of the Association Montessori Internationale*, 2/3, 2–7.
- Montessori, M. (1946/1989). *Education for a new world*. Oxford: Clio Press.
- Montessori, M. (1948). *Inaugural lecture at the Montessori training course in Poona*. Retrieved from <https://ami-global.org>
- Montessori, M. (1949/1992). *Education and peace*. England: Clio Press.
- Montessori, M. (1956/1970). *The child in the family*. Avon Books.
- Montessori, Mario. (1956). *The human tendencies and Montessori education*. In AMI (Ed.), Netherlands: AMI.
- Montessori, Mario. (1976). *Education for human development: Understanding Montessori*. NY: Schocken.
- Montessori Australia Foundation (MAF) (2018). Schools and centres. Retrieved from <https://montessori.org.au/schools-and-centres>
- Montessori Education (UK). (2018). *National Standards for quality assurance*. Retrieved from: <https://www.montessorisociety.org.uk/>
- NSW Education Standards Authority NESA. (2020). Registered and accredited individual non-government schools (NSW) manual. Retrieved from: <http://educationstandards.nsw.edu.au>
- North American Montessori Teachers Association (NAMTA). (2017). *How many Montessori schools in the world*. Retrieved from www.montessori-namta.org/faq/Montessori.../How-many-Montessori-schools-are-there
- Park, S, & Peterson, C. (2009). Positive psychology. *Reclaiming Children and Youth*, 18(2), 3.
- Standing, E. M. (1957). *Maria Montessori: Her life and work*. New York: Plume Book. Penguin.
- Trabalzini, P. (2011). The many seasons of the Montessori method: Maria Montessori through the seasons of the "Method". *NAMTA Journal*, 36(2).

Whitaker, T. (2013). *What great principals do differently: 18 things that matter most*. New York: Routledge.

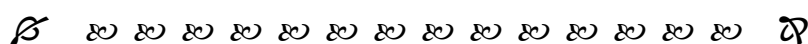
Yunkaporta, T. (2019). *Sand talk: How Indigenous thinking can save the world*. Text Publishing.

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Montessori Keystones: 2023 Summer

Montessori said
*“What I want now is
a body of colleagues,
research workers,
who will examine what I have already done,
apply my principles as far as I have gone,
not in a spirit of opposition or conviction,
but as a matter of pure experiment.”*

(Kramer, 1976, p. 262)

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