

# Montessori Keystones: Autumn 2022

**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)

**Allowing children to move freely between the inside and outside:**  
Montessori 3 to 6-year environments

**Finland and Montessori education:**  
Comparison of these two educational systems

**MRA Support Guides:**  
The Role of the Prepared Leader  
Montessori’s Theory of Child Development

First edition published 2021

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Contact: [Montessori.progress@gmail.com](mailto:Montessori.progress@gmail.com)  
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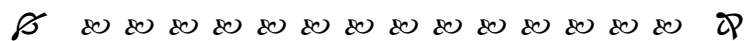
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*A spider web highlights how everything in Montessori interrelates and impacts on everything else.*



## 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, osservare - 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.

## You can be a contributor to the next edition

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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 in x way.

### 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

# Allowing children to move freely between the inside and outside of two Montessori 3 to 6-year environments

By Jacqui Gard (2019)

[In partial fulfillment of the course:  
Montessori Strategies for Children with Additional Needs in a 3 – 6 Classroom]

**Keywords:** Montessori, 3 to 6 environment, inside environment, outside environment, classroom flow

## **Abstract:**

The study took place where two Montessori 3-to-6-year aged classrooms use a communal outside deck area that opens into both classrooms. The deck has five practical life activities, land and water forms, a cloth washing table, an easel and four work tables. Although children are free to work outside at any time, limited numbers of children are permitted at any one time.

Observations by the researcher highlighter a need for changes to the rules to support children's focus and activity and protect educator's presentations.

The study established that by changing the criteria for use of the deck area the children were able to work freely on the deck area without asking permission. The children were able to visually make an individual judgement about going out to utilise the deck area if tables were not available to work on. The adjustments implemented by the staff has resulted in less children interrupting their peers to remind them that they have been outside for a long time and more children enjoying working outside in the fresh air.

## **Introduction to the Research**

*“To assist a child, we must provide him with an environment which will enable him to develop freely”* (Montessori, 2007, p. 100).

At one Australian school a communal outside deck area opens into two Montessori 3-to-6-year aged classrooms, each consisting of 21 children and a Montessori trained educator and assistant. Each morning the deck is set up with a moveable shelf consisting of five practical life activities, land and water forms, a cloth washing table and an easel where there is painting on one side and drawing

on the other. The children are free to work outside at any time, however numbers of children outside are limited for supervision reasons to eight, four from each classroom.

Every morning when the doors are opened to the deck we observe:

1. Children standing at the door counting how many children are out on the deck.
2. Children interrupting educator's presentations, to ask if they can work outside.
3. The same children using the deck each day.
4. Area is used as a social place and avoiding choosing activities in the classroom.

The researcher has been discussing and researching the outside deck area and it's use for some time. Posing the questions:

1. Is it right to limit the numbers of children on the deck?
2. Should we be using sashes for the children to put on and take off when they come in and out from the deck area?
3. If we are limiting the children from moving freely from the indoor and outdoor environments for adult convenience?
4. Are we truly providing a space for them to develop their independence naturally and freely?

## Literature review

The Creative Mind Institute (2019) suggests outdoor environments build confidence and there are infinite ways for children to interact with outdoor environments from the backyard to the park to the local hiking trail or lake, and letting your child choose how he treats nature means he has the power to control his own actions.

Maria Montessori saw that children gained a sense of satisfaction through doing work of their own choosing and that the role of the adult was to allow this natural ability of the child to flourish through careful design of the environment, and the development of freedom within a positive structure. Through examples of her observations Montessori details the reasoning behind her methods (Montessori, 2007).

In addition, Montessori stated that *"if we are to educate the child, we ought to be careful to correspond to what we might call the psychological needs of development belonging to the various ages"* (Montessori, 1946/1989, p. 30). Later in the same publication she argues that to *"mix the ages together... from three to six. This fact makes such a difference, that if one were to put all the children of the same age together, there would be no success, and it would be impossible to apply our*

*method.... One of the secrets is the open doors... gives a freedom of circulation, between different grades, this circulation is of utmost importance for the development of culture. One of the great advantages of our method is this living together of the three ages and it is one of the best ways for individual development”* (p. 65) and that *“it is evident that here it is not the teacher who keeps the order, but that it is a psychological organization of the children which brings theme to these results”* (p. 66).

Montessori educators are aware that multi-aged classes enhance socialisation, wellbeing, and learning as learning occurs without competition and supports developing leadership. These class communities demonstrate respectful grace and courtesy, encourage humility and morality. The AMI Global School Accreditation Standards Program (in development) highlight that class composition consists of balanced mixed age groups.

Montessori (1946/1989) stated that *“the number of children there should be in a class in order to give profitable results, 30 to 40. When there are fewer than 25 the standards become lower and in a class of 8 it is impossible to obtain good results. 25 is sufficient but 40 is the best”* (p. 61). She continued to explain how important mixed age groups were by saying, *“...30 children are mixed in ages of 3 to 6 years old. This fact makes such a difference, that if one were to put all the children of the same age together, there would be no success, and it would be impossible to apply our method...one of the great advantages of our method is this living together of the three ages and it is one of the best ways for individual development”* (p. 65).

Montessori advocated for children to spend time outside in nature and in her London lectures (1946/1989, p. 76) she argued that *“it is not nature alone, but nature and the environment together, that give us the miracle of the little child, the miracle of the little child who speaks.”* She added later that, *“naughtiness will disappear if we give children the right environment at a sufficiently early age. This environment must provide a great deal of mental food and warm, loving treatment”* (p. 119).

### **Gathering data through observations and evidence**

Over a period of three weeks the researcher observed and collected data on the number times the children asked to go outside, interrupted the educator, were redirected on the deck, worked on the deck every day or stood at the door counting the children on the deck.



## ACTIVITY REGARDING THE DECK AREA

- Asking to go outside
- Interrupted the educator
- Redirected on the deck
- Worked on the deck daily
- Stood at the door counting the children on the deck

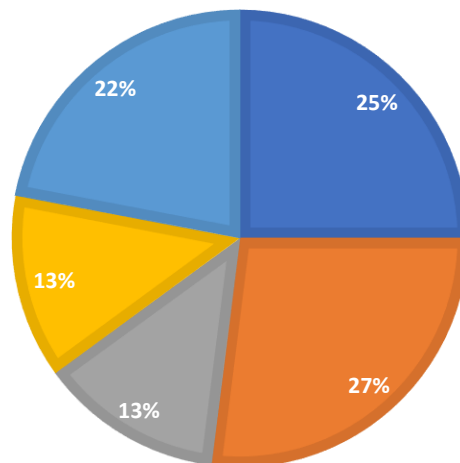
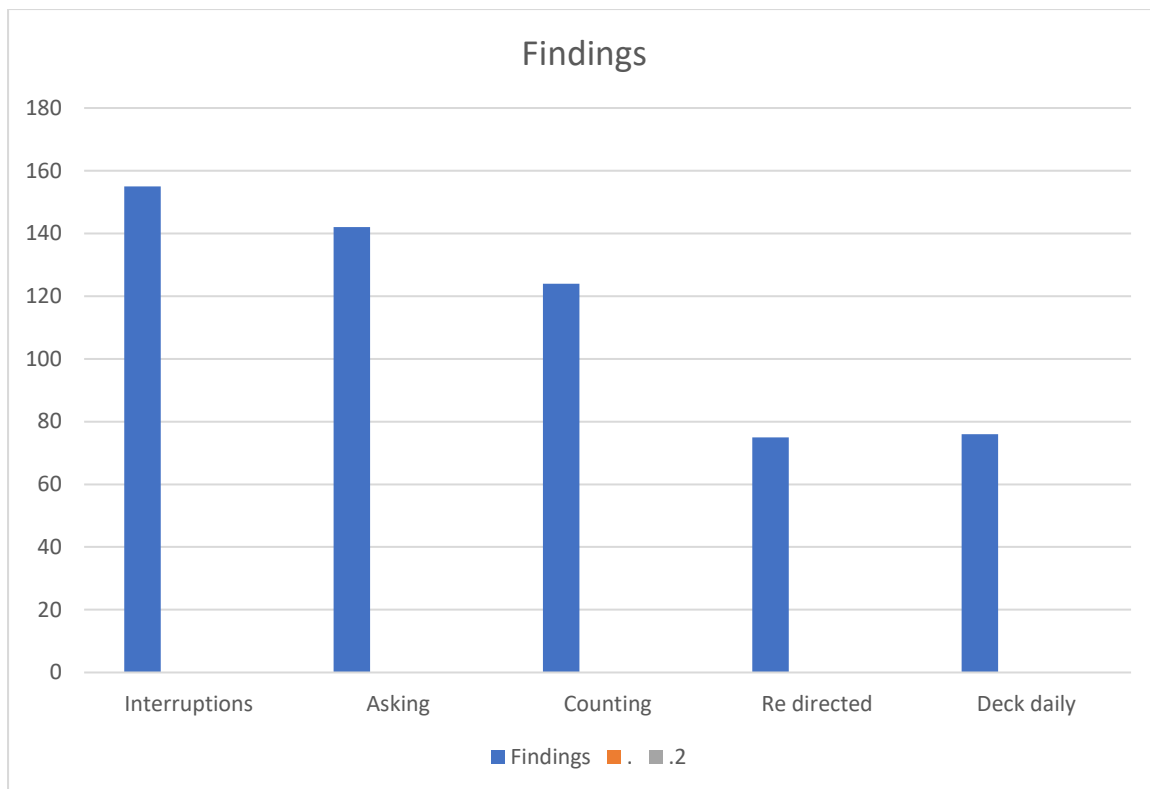


Figure 1: Data gathered on children's activity

Figure 1 demonstrates that 25% of children asked to go outside, 27% interrupted the educator to ask, 13% were redirected whilst they were active on the deck area, 13% also worked on the deck daily, in addition, 22% of the children would stand at the door counting the children on the deck to check their own eligibility to go outside.

We gathered out information/data was by using a clip board to record to record our findings each day and then collated them at the end of each week and again at the end of the three-week period. Both educators used a stroke tally under the five headings when observing throughout each day. Once all findings were collated, we found the following findings.



*Figure 2: Record of daily findings over a three-week period*

Over the three-week period findings revealed:

Interrupted Educator [155 interruptions].

- Educators were interrupted by children waiting beside them until presentations were finished and then asking if they could go outside.
- Children disturbing their presentations to ask if they could go outside.

Asking to go outside [142 children asked]

- Children seeking out educators to ask permission to go outside.
- Children asking peers how many are on the deck and can they go outside.

Stood at the door counting the children on the deck [124 counted the number on the deck]

- It was noted that the same children each day were the ones who always worked on the deck were the ones who were interrupting the educators. They reminded the educator and the other children that there were too many children on the deck or that they had been out on the deck for too long and they were wanting to have a turn.

Re directed on deck [75 children needing redirection].

- Educators were interrupted from their presentation to redirect children and negative behaviours on the deck.
- Children were invited to choose an activity to do on the deck when they were just standing outside.
- Children were redirected to the space on the deck where they were needing to stay (in view of educator).

Worked on the deck everyday [76 children who worked on the deck each day].

- The same children, three 5-year-old boys and two 3-year-old girls were worked outside daily on the deck.
- These same children were almost always on the easel or waiting to use the easel.
- Most of the time the activities that were on the shelves such as window washing were not used in an appropriate way and needed to be reminded or redirected to using it appropriately.

### **Ethical and Montessori considerations**

No conflict-of-interest issues are likely to arise in relation to this research. The project has been conducted as part of the researcher's daily work in the classroom and is therefore subject to her Montessori professionalism standards, confidentiality in particular. Therefore, no audio, photos or real names (initials have been used) have been added into my project. The data remains the researchers as the author.

Montessori did not use the term 'ethics' but she did stipulate the type of 'new teachers' she wanted to observe in and lead her environments. Montessori stated that the educator "must acquire a moral alertness which has not hitherto been demanded by any other system." (Montessori, 1967, p. 151). Montessori also stated that adults should "take the greatest care to be sincere" (Montessori, 2012). "The teacher can make observations which, when they are later studied scientifically, can help determine a child's mental state and lay the foundation for further pedagogical experiments" (Montessori, 1967, p. 319).

### **Discussion**

The results of the research over the period of three weeks demonstrated that 142 children asked an adult if they could go outside, and 155 children interrupted the educator to ask if they could go outside.

It clearly highlighted a problem that needs to be addressed. After consideration and discussions with the children, a new plan for the deck was developed. The children now have more freedom within limits and independence can flow from inside to the outside environment. Additionally, the plan will help support and protect the educator's presentations.

The children's deck plan includes:

- We have no limits on how many children can be on the deck at one time.
- Grace and Courtesy is fostered and practiced when working on the deck and reflects what occurs inside the class.
- Some materials can be taken outside and used on the deck but with care (no materials with very small pieces as they can get lost down the cracks).
- Educators removed obstacles such as activities which were not being used appropriately or which do not seem to be of interest to the children.
- New or improved activities were placed on the shelves to encourage engagement and develop new interests.
- There are a limited number of tables and work spaces and if these are being used by other children then the children can work inside instead.

## Conclusion

Our school design aims to support the physical and independent wellbeing of each student by interacting with more peers. The data collection process has clearly shown that children using the deck was not being utilised fully. However, conducting the research project has led to the children now being able to work freely within or on the deck area without asking permission.

The environment has limitations, and the children are able to see this when tables are not available to work on. There is markedly reduced interrupting by children of their peers to remind them that they have been outside for a long time. Additionally, there has been a reduction in interruptions of the educator. The children enjoyed being part of the discussions to improve working outside in the fresh air and they appear to greatly enjoy their independence in this area.

## References

Creative Mind Institute (2019). Retrieved from: <https://www.instituteforcreativemindfulness.com/>  
Montessori, M. (1946/1989). *The 1946 London Lectures*. Montessori-Pierson Publishing Company, Amsterdam: The Netherlands

Montessori, M. (1967). *The discovery of the child*. Random House Publishing Group: Toronto, Canada.

Montessori, M. (2007). *The Montessori Series: Vol 1. The Absorbent Mind*. Montessori-Pierson Publishing Company, Amsterdam: The Netherlands

Montessori, M. (2012). *The Montessori Series: Vol 17: The 1946 London Lectures*. Montessori-Pierson Publishing Company, Amsterdam: The Netherlands

**About the Author:**

Jacqui began her work as a Montessori Educator in 1997 as an assistant for 9 years at the Inner Sydney Montessori School. During that time Jacqui completed a Diploma of Community Services in 2003, AMI Montessori 3-6 Diploma 2006 and a Bachelor of Teaching in 2011.

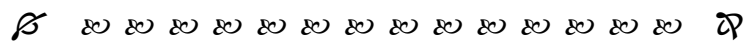
After completing her AMI training and while studying her Bachelor of Teaching Jacqui took over Kinta at Lilyfield as the lead educator and authorised supervisor and later as 3 to 6 coordinator for the school.

Over the years Jacqui has mentored new AMI teachers in training, set up 3 to 6 classrooms and organised numerous educational evenings for both staff and parents. Her passion is ensuring children and families voices are heard and respected and new families are welcomed and included. Jacqui enjoyed working with many families and amazing staff throughout her 16 years at Inner Sydney Montessori school.

Jacqui has now been at Barrenjoey Montessori School, Sydney, for 11 years, 9 years as a 3 to 6 educator and the last 2 years running their John St campus. Jacqui says that "the new campus is an amazing place, perfect for a 3 to 6 classroom and perfect for the development of the whole child."

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## MRA Support Guide: Montessori's Theory of Child Development

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

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

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

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

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

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

The Montessori theory of child development has unquestionably stood the test of time, consistently growing from one school in Italy in 1907 to over 20,000 worldwide in 2021. The extensive experiences throughout the world have unreservedly confirmed the principles Montessori’s theory developed, although times are constantly changing. Montessori stated, “*The truly central point of this experience has been a discovery in the field of child psychology. Every further development has followed upon that first revelation given by the children .... such phenomena were not manifested at a single time and in a single environment but have been repeated in every part of the world where a system has been exactly followed. These extraordinary phenomena have revealed an unknown aspect of a child's soul. And this is the real pivot of all our work.*” (Montessori, 1915/1997, p. 323)

Montessori’s theory stands above the rest because of the thorough research which validated the Montessori principles, including that the hand and mind are essential elements in children’s educational development (Montessori, 1949/2005). Montessori theory has defined, developed and encouraged scrutiny and testing of its results (Montessori, 1913/1965, p. xix). Additionally, Montessori’s theory established that obstacles have to be overcome to support a person’s development (Montessori, 1949/2005, p. 9). Lillard (2005) queries why Montessori is not more well-known, “...given how ahead of her time Dr Montessori was, it is interesting that she is close to ignored in psychology and education circles...is it that she was a woman, working at a time when the only women who survived the passage of time in the behavioural sciences were the wives and daughters of famous men, such as Margaret Mead and Anna Freud” (p. 341).

# Finland and Montessori education: Comparison of these two educational systems

By Sarah Beresford-Jones (2021)

[In fulfillment of sponsorship by Australian Research Training Program]

**Keywords:** Finland education, Montessori education, early childhood education, student achievement, student assessments

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## Abstract:

A variety of sources state how effective Finland's comprehensive school system has become. When researchers dig deeper and examine what Finland has enacted to achieve, what is considered to be, high educational achievements it can be seen that a great many are automatically carried out in another system of education - Montessori. This article's aim is to conduct a limited comparison of the two systems to highlight some of the differences and similarities between Finland mainstream education and the international Montessori education, specifically Montessori in Australia. Through utilising desktop research to review both Finland's state education system and Montessori education.

Finland in 1970 was emerging from under the influence of the Soviet Union with an education system that separated 11-year-old children into two streams, academic and practical. Finland government put in place a substantial commitment to selecting the best university student to train as teachers, as well as using a student-centered approach and making student's needs a high priority. Montessori in Australia has managed to forge ahead through some turbulent times recently and will hopefully emerge stronger. Montessori education aims to form the child's whole personality so all adults develop the ability to judge any ideology for its positive and negative facets. Through fostering the child's independence, their capability to use peaceful conflict resolution and their ability to guide their own work needs.

The key for Montessorians is to implement Montessori's core philosophy in all areas of our settings so in the future we will ensure that Montessori is always talked about as the best system for educating children.

## Introduction to the Research

Researchers (Butler, 2016; Sahlberg, 2013) examined Finland's education system in recent years and similarities can be seen with Montessori education. The aim is to achieve several objectives



- a brief introduction to both education systems and a comparison of the two systems to highlight any similarities and challenges they both face specifically relating to Montessori in Australia.

A variety of sources (ABC News, 2020; Butler, 2016; Colagrossi, 2018; Dickenson, 2019a; Hancock, 2011; Morrison, 2017; Sahlberg, 2013; SBS News, 2019; World Economic Forum, 2019) have stated how effective Finland’s comprehensive school system has become. Much of this success is said to be based on an international test, Program for International Student Assessment (PISA). Finland, for the last 16 years, has sat amongst the top of Europe’s PISA rankings (Butler, 2016). The Organisation for Economic Co-operation and Development (OECD) administers PISA every three years to test reading, mathematics and science ability of 15-year-old students (Hani, 2014). The PISA tests demonstrate that students in Finland have had some of the world’s highest scores, although between 2006 and 2012 Finland’s scores lowered whilst other countries have remained steady (Dickenson, 2019b). Between 2010 and 2013 Finland dropped 22 points overall, reading skills by 12 points and science by 9 points (Ylä-Jääski, 2013).

There are no PISA score figures on Montessori schools in Australia and Montessorians would state that academic scores are not the only measures that should be used to demonstrate educational achievements. The Developmental Environmental Rating Scale (DERS) was launched in some Montessori schools from 2013. The work to establish DERS was carried out under the OECD as part of studying school settings and creativity. DERS rates 60 research-based environmental attributes, including patience, persistence, precision, order, executive functioning, literacy and social emotional learning which has established a set of benchmarks. The tool can be used in many different education settings but is based on developmental learning theories and practice (Cossentino & Brown, 2017). Many Montessori schools in different countries, but predominately the United States of America, use this rating tool.

The methodology for the review included searching various databases for research, reports and commentary on education in Finland and the Montessori approach. The databases used included Ebsco, Proquest, Eric and Google Scholar. The search terms applied included some of the key search terms used were ‘Finland AND education’, ‘early childhood education’, ‘student achievement’, ‘student assessments’, ‘Montessori’, ‘Montessori AND education’. The framework for publishing dates ranged from 2009 to 2021. Table 1 demonstrates some of the authors researched.

Author	Characteristics	Publication Year
Butler, P	The Guardian newspaper journalist interviews a day-care centre director, a Professor at Helsinki University in Finland and a Cambridge Professor in the UK to discuss schools and aspects of play can have on student outcomes which are employed by Finland who is considered a ‘top education system’.	2016

Colagrossi, M	A Big Think writer discusses how the Finland Ministry of Education has created reform, and through the use of PISA data helps point out why Finland's education system has improved.	2018
Cossentino, J, & Brown, K.	Researchers who developed The Developmental Environment Rating Scale in order to measure qualities such as patience and persistence in children, precision and clarity in lessons, and order in the environment, which support the development of executive functions, literacy, and social-emotional learning.	2017
Dickenson, K.	A World Economic Forum writer explains about PISA, Finland building a comprehensive education structure designed to offer citizens free education with no dead ends with its inspiration was American education research and philosophers. He writes about how it is failing.	2019
Finland Ministry of Education and Culture	Finland government term's most significant development program for early childhood education and care and basic education set to begin.	2019
Hancock, L	Writer for Smithsonian Magazine explains why it is felt that Finland's schools are successful.	2011
Morgan, H	Article highlighting the education system in Finland. Clearly examines how Finland reformed their education system.	2014
Lillard, A	Researcher who has carried out various studies into Montessori philosophy and practice. In one of her books, she explains how science has caught up with Montessori. Her research has used 8 foundational insights of Montessori to illustrate how each occurs in Montessori classrooms.	2005
Montessori, M	Montessori writes several books about how education needs a revolution to aid children's development and the Montessori philosophy, practice and approach is the best way to accomplish positive change in education.	1912, 1936, 1942,
Sahlberg, P	Educator and writer on Finland's educational change can be better understood through paradoxes that through change logic. He discusses educational change in Finland, lessons learnt, and teachers as leaders.	2011, 2013
Sarjala, J.	Former Education Minister in Finland discusses that they provide education of high equality and high quality so making success across Finland not just in select schools.	2013

*Table 1: Literature searches*

## Background

Finland in 1970 had an education system that separated 11-year-old children into two streams, academic and practical (Sahlberg, 2009). Schooling around this period revolved around children leaving after 6 years in the public-school system. Others went to less rigorous schools, such as folk or grammar schools. Finland wanted to develop a “modern, publicly financed education system with widespread equity, good quality, and large participation—all at a reasonable cost” (Sahlberg, 2009, p. 324). Quality education was only gained by the privileged and this is when Finland began to remould itself (Hancock 2011). In 1972, they implemented ‘peruskoulu’, a new way to carry out children’s education (Sarjala, 2013).

Montessori education was developed in the early 1900’s, when Dr Maria Montessori started to research the education being delivered to children and found that education can hinder instead of assisting children’s development. Montessori’s speech at the inauguration of her first classroom in 1907 demonstrates the model of education she envisaged. She described the child as having a depth

that needed the appropriate educational environment and materials in order for them to develop (Montessori, 1942). Montessori schools and early childhood centres have spread across the globe over the last 100 years, with over 20,000 around the world. There are 280 settings with Montessori in their name in Australia (ACECQA, 2021). Comparatively, England has 700 settings (Montessori Education UK, 2018) and United States of America has 4,500 (North American Montessori Teachers Association, 2017). To this day anyone, whether they have knowledge of Montessori or not, can establish and run a setting anywhere in the world and call it *Montessori*. However, Montessori had evolved her approach for implementation in a particular way for children achieve their full potential. The history of Montessori education in Australia began when Martha Simpson established a modified experimental Montessori classroom in Sydney after reading about Montessori education and subsequently participated in the teacher training in 1913 (Feez, 2013). In 2017 the spread of class ages in Australia had changed considerably (Table 2). In 2004, 10,000 children accessed a Montessori education in Australia in 485 classrooms. Comparative 2017 classroom data from the Montessori Australia Foundation (MAF, 2018) is summarised in Table 2.

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

*Table 2: Number of Montessori classrooms in age groups in Australia*

Table 2 clearly shows the decline by 78 classrooms in the 6-12 age group from 2004 to 2017, along-side a rise of 60 more classrooms in the 0-3 age group in the same time period. Both the 3-6 and 12-18 age groups have remained at relatively similar numbers.

The distribution of Montessori settings (Table 3) in each Australian state and whether they are early childhood settings or schools with early childhood settings. The table demonstrates that there are 280 Montessori settings and 18% of all those settings belong to one of the childcare chains. Only 13% of Montessori environments in Australia are a school, a few are 0 to 6 environments, the majority are 0 to 5 environments (ACECQA, 2021).

State	# Settings		Schools		ECC		Childcare chain % ECC totals
NSW	112	39%	13	12%	99	88%	26 x Academy
VIC/TAS	58	21%	6	10%	52	90%	15 x Amiga
QLD	53	18%	4	8%	49	92%	
WA/NT	32	12%	9	28%	23	72%	
SA	21	8%	3	14%	18	82%	8 x Precious Cargo
ACT	4	2%	1	25%	3	75%	1 x Academy
<b>Total</b>	<b>280</b>		<b>36</b>		<b>244</b>		<b>50 x chains = 18%</b>

*Australian distribution of Montessori settings (MRA, 2021)*

### Comparison of national initiatives in Finland and Montessori education in Australia

The main themes in this research include educational system components, educator's role, student-centered environments and general schooling (Appendix A: Summary of the comparisons).

#### Education System Overviews

Finland was led to reform its education system in order to firmly establish their social values, which included citizens welfare programs and through a belief that if everyone is capable of learning if they participate in a quality education, they talk about how much their system has had to change to be successful (Sarjala, 2013). The government put in place a substantial commitment to selecting the best university student to train as teachers, as well as using a student-centered approach and making pupil's needs a high priority (Sahlberg, 2013).

If Montessori education was the accepted education in Australia, it would have established social values, love of learning and quality of education, as this is the basis of Montessori philosophy. Montessori started from one fundamental assumption, "...the goal of Montessori education is the formation of the child's whole personality" (Mario Montessori, 1976, p. 90). Explicitly, giving full support to the child so they can reach their potential, which is achieved through fostering their independence, their capability to use peaceful conflict resolution and their ability to guide their own work needs (Lillard, 2005). Contemporary researchers of positive psychology (Park & Peterson, 2009) similarly support the whole person approach. These researchers stated that it is desirable to focus on people's strengths, learning to understand their feelings, behaviours and thinking so ensuring people reach their full potential. Additionally, Mario Montessori (1956) stated that "the child should absorb with our help...so when they have reached adulthood...then no matter what ideology would come thereafter, they would have a basis of judging its positive and negative facets"

(p.17). Lillard (2019) states that Montessori education as a successful system has been virtually unchanged over the years.

Montessori's approach to quality education is outlined in her extensive writings and those of her son, Mario. She advocated for children's early education and to aid human intellect she advocated for education through the senses. Her educational philosophy stated that a child's choice of specific activities supports their mind to concentrate and reach its full intellectual potential (Colgan, 2016). Although there are many components that are vital to implement quality Montessori education there are some essential *keystone* elements of Montessori including Montessori trained and prepared educators and leaders; observations of the children and class; planes of development supported through multi-aged classes; uninterrupted work periods encouraging independence; specific developmental designed materials supporting sensory learning and movement; individualised learning and following the child's interests through child directed work; partnership with parents and a prepared environment to remove obstacles from the child's development (Joosten, 1970; Lillard, 2005; Montessori, 1913/1965). All these fundamental elements are underpinned by Montessori's theories of the human tendencies, the absorbent mind, and sensitive periods (Montessori, 1913/1965).

❖ Finland's education system is 100% state funded (Butler, 2016).

🇺🇦 The government does not fund Montessori, although in Australia there is some school funding that is applied to all schools. Most Montessori settings in Australia charge fees with many established as non-for-profit organisations (MAF, 2017). Early childhood (3-5 years old) fees are subsidised by the government for lower income earners. In Australia in 2017 there are 265 Montessori settings and only a handful of these (13) are attached to public schools (MAF, 2017). In 2021 there are 280 settings using the name 'Montessori' (ACECQA, 2021). In addition, the Montessori Children's Fund is a charity established, in part, to distribute the bequest of Robert Masterman (established 2006), which aims to provide funding for families of Aboriginal and Torres Strait Islander peoples in the area of Northern Queensland (MAF, 2017). Montessori settings in Australia do have a Montessori National Curriculum (MNC, 2011), but it is not recognised in all of the Australian states and territories or by governments around the world. Therefore, individual Montessori schools spend many hours writing documents to explain how the Montessori curriculum maps to the local government curriculum requirements.

❖ Finland has outlawed school selection, choice, privatisation, competition, and competitive league tables are non-existent (Colagrossi, 2018).

- ✚ The nature of not being recognised by the government means there is socio-economic selection with regards to Montessori enrolments. Nearly all Montessori settings in Australia are private, with many being non-profit organisations (MAF, 2017) but with a growing trend in for-profit Montessori settings especially in the early childhood sector. The Australian government established the ‘My School’ website in 2010 which includes information including National Assessment Program Literacy and Numeracy (NAPLAN), tests sat by children aged from 8 years old, scores and other aspects of schools that newspapers use to produce league tables (ACARA, 2019). However, competition does not generally exist between Montessori schools with regards to the league tables.
  
- ❖ Mandatory school counselling programs in schools in Finland which is a factor of high rates of graduating students (Colagrossi, 2018). Current figures demonstrate that 93% graduate from high school and 66% of students go to college.
  
- ✚ Children remain in the same class for a period of around three years so deep relationships build trust with teachers. By its very nature Montessori philosophy and education ensure children developed positive, confident attitudes to school through developing their inner security. Children have a strong sense of order, they help maintain their school environment, they learn to persist and use initiative to solve any problems. Children develop self-discipline through an autonomous education and have a sense of responsibility to others in their immediate surrounds and further afield (Montessori, 1936). There are only a handful of secondary Montessori schools in Australia and there is no data available on high school graduates who have attended Montessori schools.
  
- ❖ Finland’s National Board of Education has aimed for their curriculum to lead to pupil’s researching and seeing the ‘joy of learning’ (Hayes, 2015).
  
- ✚ Montessori determined that education for young children should motivate their natural desire to learn which each child possesses (Montessori, 1936). Montessori understood that children were not interested in external motivation (rewards), but they had an inherent characteristic to engage with the developmental activities ‘for the sheer pleasure of the activity itself’ (Kramer, 1976, p. 117). ‘Love of learning’ is a key tenet of Montessori philosophy.
  
- ❖ Finland’s students rarely take exams, with one standardised test at 16 years (Colagrossi, 2018).
  
- ✚ Montessori schools have no exams however Montessori parents are offered a choice about their child’s participation in the NAPLAN tests conducted with 8, 10, 12, 14, 16-year-olds). Parents can opt-out of this test, and this does not affect the funding for those schools.

- ❖ Finland has no ability streaming and lower achieving students set the pace in many classrooms (Ylä-Jääski, 2013). The difference between weakest and strongest student is small (Butler, 2016).
  - ✚ In Montessori classes there is no ability streaming, there are only mixed ability and mixed age classrooms with each child studying at their own developmental level and pace, with the older children leading and assisting the younger children (Feez, 2013). Montessori (1989) stated that *“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”* (p. 30). *“Mix the ages together... makes such a difference, that if one were to put all the children of the same age together, there would be no success, and it would be impossible to apply our method.... One of the secrets is the open doors... gives a freedom of circulation, between different grades, this circulation is of utmost importance for the development of culture. One of the great advantages of our method is this living together of the three ages and it is one of the best ways for individual development”* (p. 65). *“It is evident that here it is not the teacher who keeps the order, but that it is a psychological organization of the children which brings theme to these results”* (p.66). Multi-aged classes enhance socialisation, wellbeing and learning. Across age learning occurs without competition, supports developing leadership, respectful grace and courtesy encouraging humility and morality across age learning occurs without competition, supports developing leadership/respect.
  
- ❖ Finland schools give no homework until they are in their teens (Colagrossi, 2018).
  - ✚ Montessori has no homework. Montessori believed that the classroom was a place for children to explore their interests and capabilities and it therefore is not part of that philosophy for children to do work that is dictated by an educator outside class hours. Children quite often spend time exploring projects and spending time with family.
  
- ❖ Children receive free school meals at school in Finland (Colagrossi, 2018).
  - ✚ On the whole children would not receive free school meals in Montessori settings or indeed in Australian traditional schools either.

## Educators

Finland has a highly structured system for preparing their teachers. Not only do prospective teachers need a high score on college exams, engage in extracurricular activities, a written exam on teaching, but also pass an interview (Tucker, 2012). Individuals who wish to be a teacher are fully funded and spend five year gaining a Masters’ degree (6 years for a Special Needs teacher) which elevates teachers to the same high social status as lawyers, architects, engineers and doctors. Places for the Masters’ courses are highly sought after with 600 places offered but over 6000 applications.

Teachers are required to have good general knowledge, clear moral purpose and social skills (Colagrossi, 2018). By engaging with well-educated teachers, it means that in the classes they are more effective, but also understand that what any new government reform ideas can mean for the education system and keep it free from ineffective knee jerk responses to situations. The universities in Finland have established Education Faculty's which makes these departments equal with other university departments, such as law or business. The Education Department also have clinical schools for students to undergo practical training, this is similar to medical teaching hospitals and that university department (Colagrossi, 2018).

Montessori teachers in Australia study for 1 year to receive a Montessori Diploma in a particular age group (0-3, 3-6 or 6-12). Providers offer both face-to-face and blended learning (some learning is conducted face to face and some online). Part of the training usually involves time in Montessori settings to observe and also to conduct teacher practicum. Montessori teachers understand what children need to aid their life development and will strongly resist new government education fads and toxic ideas. Government qualifications are also required at Degree level to become a teacher of 3-18 years old and Diploma level for under 3 years old. The government does not expect teachers to study at Masters' level or beyond, a teacher can remain with an education degree throughout their career as long as they complete 20 hours of accredited professional development each year. A research project conducted on leadership in Australian Montessori schools found the educators who completed the survey, 100% held Montessori diplomas, 10% hold a master's degree, 40% had gained a degree and 50% held an Australian diploma (Beresford-Jones, 2021).

- ❖ Teacher training programs are 100% state funded in Finland (Sahlburg, 2013).
  - 🚩 Montessori diploma courses can attract sponsorship for individuals from schools but are also paid for in full by individuals (around \$AU14,000). The Australian government does not fund university places but do provide loans and there are scholarships available. To attend university an Australian Tertiary Admission Rank (ATAR) score, which prospective students need to achieve, is used to gain entry to any course. Universities have slight variation on these scores but as a general rule to gain entry to study medicine you need an ATAR of 99, study law an ATAR of 95, for engineering or architecture ATAR of 80+ but for teaching it is 70 and has been as low as 0 until recently. There are 43 universities in Australia who work to establish relationships with schools in order for teaching practice to occur for students (Australian Government, 2019).
- ❖ Teachers support the different learning styles and needs of students as they have learnt student's individual needs (Colagrossi, 2018). Finland has introduced research projects for student that are interdisciplinary and 'phenomenon-based' (Hayes, 2015)



- ✚ All children receive individualised attention to support their needs and interests with the aim that all children reach their potential. The Montessori holistic approach aims to enable an education for life through individualised learning, following Montessori curriculum, and according to Montessori's theories on the planes of development, sensitive periods, the absorbent mind and human tendencies. Rathunde and Csikszentmihalyi (2005) found that children in Montessori classes were considerably more engaged, with greater energy, interest and intrinsic motivation, than children in regular classes, who felt their schoolwork was more like drudgery. "Montessori education is set up to create interest in topics, and to capitalise on the interests of children already have, thereby optimising learning" (Lillard, 2005, p.151). In 6- to 12-year-old classes what Montessori termed as *Cosmic Education* helps the children acquire a cosmic vision of the world, space and time giving them the time to research and explore our complex universe to acquire the knowledge of interrelationships. The child becomes aware of cosmic tasks and work reaching deep understanding of the living and nonliving, which leads to responsible participation in life with nature and humans. Montessori felt the child would develop a philosophy of kinds about a harmonious universe and lead the child to their own place and task in their world and this would lead to opportunities to engage with their creative energy (Grazzini, 2013).
  
- ❖ Finland develops a new type of highly qualified teacher who could differentiate instruction, more expertise, offer alternative teaching methods, and had more expertise to teach a wider variety of students (Butler, 2016). Schools develop informal relationships in a relaxed setting.
  
- ✚ Montessori based her philosophy on the *new teacher* who she saw developing the ideal culture within her settings as one of mutual respect. She argued that skills in observation, experience of child development and knowledge of the materials are indispensable for promoting children's individualised learning (Montessori, 1913). In the teacher training courses she developed Montessori described the need for young children to work individually, with freedom to explore without interruption and she trained adults to observe and guide, rather than to teach. She promoted the abolition of rewards and punishments and removed both collective rote lessons and the teacher's high desk in the classroom. The Montessori educator squats down to the child's level, engages with them in listening, responding and demonstrating and allows the child the space and time they need to fully understand concepts. Montessori stated that "view of education, a man is not what he is because of the teachers he has had, but because of what he has done," (Montessori, 1913, p.172). Montessori classes develop very informal relationships between children and their teachers and have very relaxed settings as children work at their own pace not one set by an adult.

- ❖ Finland's education system provides support for student's needs with teachers assessing how well their students achieve the learning goals including students being with the same teacher for up to 6 years (Colagrossi, 2018).
  - ✚ Montessori students have same teacher for around 3 years. The children learn how to get along in a group whilst retaining their individuality. The younger children are inspired by older children, and some of the teaching is carried out by older and younger peers working together. Montessori always came back to several simple descriptive points with her philosophy, that include an orderly, prepared environment; a humble educator who can observe; and freedom for the child (Montessori, 1936). Kramer (1976) stated that a school is child-centered, however the teacher decides what is taught but this is based on the needs and nature of the children and teachers will gain this knowledge through observations of the child.
  
- ❖ In Finland teachers spend only four hours a day in the class, teachers do four or five 45-minute lessons daily; whilst in junior high school, every 45-minute lesson is followed by a 15-minute recess that students spend outdoors. The government decided that shorter school hours ensured quality approach to education, not quantity (Colagrossi, 2018).
  - ✚ Montessori teachers spend the school day in the class and outside environments depending on the age group being taught (6-7 hours). There is no mandatory time off class for teachers in Montessori settings but some schools, for example, organise sport, second language tuition or music lessons with a specialist which may either lessen the number of children in the class during that time or all the students in that class join that lesson. There are generally no set recess times but freedom for the child to work in or outside class and break when the individual child feels they need it. Some schools do schedule these breaks through children choosing their time on a schedule.
  
- ❖ For every seven students there is one teacher or assistant in Finland's schools (Sahlberg, 2013).
  - ✚ In Montessori schools in Australia the number of adults to children is based on state requirements. Depending on the state or territory the ratios are around one adult to every 10-15 children with 4- to 5-year-olds, and around 25 to 30 children aged 5 to 12 years. In Montessori classes the majority of classes at any age have at least two adults. However, Montessori herself felt the more children and less adults you had, the better education the children received. More children mean more work variation being carried out and observed by younger children. More children also mean more personality variation whilst children develop their social skills and gives more opportunities for peer teaching (Lillard, 2005).
  
- ❖ Finland education give teachers two hours a week to participate in professional development opportunities (Colagrossi, 2018).

✚ The Australian Government established accreditation requirements to strengthen the quality of the teaching workforce in both ECE and school settings (NESA, 2018). Currently early childhood teachers in the Australian Capital Territory, Northern Territory and Queensland only require registration if the early childhood teachers are employed in a setting attached to a school. In contrast all early childhood teachers in New South Wales, South Australia, Victoria, Tasmania and Western Australia are required to be accredited (ACECQA, 2018). This averages out weekly as 30 minutes a week. There is no Australian or global Montessori recognition program for teachers or time set aside for the few Montessori professional development generally. Opportunities are accessed by individual teachers as and when they are offered.

## Schooling

Early years education does occur in Finland with their main aim being to promote creative play, health and wellbeing, develop good social habits, making friends, respect others, dress themselves, language development, physical activity whilst instilling a joy of learning. (Colagrossi, 2018). Staff to child ratios are 1:4 for under-threes and 1:7 for the older children. Once engaged in a task they enjoy children become motivated to constantly refine and improve their task and to increase challenge. Carefully organised play helps develop qualities such as attention span, perseverance, concentration and problem solving, which at the age of four are stronger predictors of academic success than the age at which a child learns to read. mix of “free play”/ teacher-directed play development is constantly evaluated.

Adult to child ratios for under 2 years are one to four; between 2 to 3 years are one to five children and 3 to 4 years are one adult to ten children. Montessori education's core quality elements include observations by the educator, multi-aged classes, properly trained Montessori educators, Montessori materials, sensory learning, uninterrupted work periods, learning through movement, development of independence, peaceful conflict resolution, and child-directed work. She placed children in an environment where they would thrive by being assisted according to their needs and capabilities (Mario Montessori, 1956). The Montessori philosophy and practice are based on the understanding that from the beginning the child's education must be viewed in its entirety: physically, socially, emotionally, cognitively, and nurturing the human spirit (Montessori, 1913, 1936, 1967). Children are provided freedom with responsibility and a more dynamic role in their learning so that this inspires the children to later take their place in their community as responsible and contributing adults (Montessori, 1967).

❖ Holistic learning is aimed for by creating environments of individual guidance (Colagrossi, 2018).

🌈 Montessori was one of the few educators of her time concerned with the holistic development of every child. Some key features to support a child's holistic education are the prepared environment, which remove obstacles to the child's development, including: a space which is clean, spacious, filled with natural light and with access to outdoors for work, gardening, sport, and gross motor activities including for example running, child-sized furniture and a set of Montessori materials encompassing all the curriculum areas (Lillard, 2005). Montessori principles highlight the need for the child to learn through movement to develop a foundation of concrete learning that gradually moves to learning more abstract concepts. Many materials do not need a teacher's intervention but have an inbuilt control of error that aids the child in their learning. There are cycles of activity around the materials which lead the child to develop concentration.

### **Author's observations and reflections**

ABC News on 31<sup>st</sup> January 2020 found that in Finland teachers eat their lunch with the children and children help run a school café at recess. It was also stated that schools collect no money from parents for anything as every activity or educational need is state funded, they do carry out regular student exams and tests, but the results are not published. However, the ABC claims that the biggest factor of quality education is the investment in teachers through post graduate qualifications leading to a higher standard of teaching and higher status of teachers (ABC, 2020). Improvement is always possible and Sahlberg (2011) reported that there are concerns in Finland around teacher induction and in-service education. It was found that some schools did not give any support for new staff while other school gave extensive support. Hayes (2015) discussed whether Finland's education system had been transformed to meet economic demands not necessarily to change society.

Part of a Montessori educator's role is to role model eating lunch with the children and many older children might run a school café. It is also well known that Montessori education was developed to support the individuals who will positively change our society. Support in Montessori schools for staff could be seen as the same as Finland's issue of some schools being very supportive and others less so.

Another point to consider by researchers in relation to Finland, but also has been found in all countries, is that girls in Finland outperform boys (Dickenson, 2019b). Sahlberg (2011) claims that boys simply do not read for pleasure and that is one reason why girls obtain higher levels of education overall.

Montessori education does not differentiate on any level between sexes, boys sew, and girls build, and this has been the program for over 100 years. Lillard (2005) argues that what is beneficial to boys with regards to reading in particular is the emphasis Montessori places on phonemic analysis from a very early age. Programs with a more traditional academic focus are found to be less effective at creating positive emotional, motivational, cognitive and social outcomes (Miller & Bizzell 1984).

Dickenson (2019b) is concerned that people use a very narrow lens to discuss Finland's educational changes and have misled people as there is so little external accountability, with principals overseeing a self-assessment system carried out by the teachers. The people who understand Montessori education can clearly see the benefits of this method of education, but it has also received countless criticisms over time.

### **Challenges facing Finland**

In Finland the government over many years has effected positive changes and is about to introduce a pilot program (2020-2022) to significantly develop early childhood education and care. The program, called 'Right to Learn – An equal start on the path of education' will develop quality programs to lessen any gaps in learning (by providing more finances to schools to implement measures) due to a child's socioeconomic background (by establishing equality fund to finance schools), and will integrate early childhood classes more with early primary education. The government will downsize primary school class sizes and implement a national management development program. A project is being developed for teachers to continue their professional education (Finland Ministry of Education and Culture, 2019).

Finland may want to tighten up their teacher induction and in-service education as all schools do not give staff the support they need. It has also been queried that the educational change is for economics not to change society. How to level the play field of gender so boys draw level with girls and how to address that between 2010 and 2013 Finland lower PISA scores.

### **Challenges facing Australian Montessori education**

Montessori in Australia has unfortunately hit various issues recently as the main support organisation for schools, Montessori Australia Foundation (MAF), went into liquidation with 'the investigations focused on..... insolvent trading and director's duties' (Grant Thornton, 2019, p.9). The general Australian Montessori community, both settings and individuals, donated monies to ensure the two AMI teacher training courses that were in progress were completed. An interested

individual has now purchased MAF and is setting up new programs for Montessori within Australia under the new name of Montessori Australia Group (MAG).

In light of this situation, a new national representative body, Montessori Schools and Centres Australia (MSCA) was established in 2019 to support the Montessori community. It was set up with the principles of not being for profit, membership based and owned by Montessori community. Collaboration with the Montessori community led to the development of this representative body allowing Australian Montessorians, for the first time, to have a direct say and control over the organisation (MSCA, 2019).

Two new initiatives are also giving more hope to Montessori development in Australia through training Montessori teachers. Sydney Montessori Training Centre (SMTC) was established in 2018 to ‘fill the gap in AMI training’. The inaugural course engaged AMI trainers, created training rooms and has completed their first 6 to 12 course during the 2019 year in Sydney. SMTC has worked collaboratively through the unified Montessori principals school network to establish this, particularly within the greater Sydney schools (SMTC, 2018). The second initiative is based in the state of Queensland and the fruition of a project to develop the next global Montessori research faculty at University of Sunshine Coast (MAF, 2017). The university are trying to establish a Master of Education (Montessori Studies). MAF in 2017 stated that Dr Susan Feez, along with Chiray Fitton and Grant Vayro of Montessori International College had made contributions to this project and ‘the University has now given approval for the course to be developed and AMI have also approved the initiative as a pilot programme’ (p.87). The Master of Education (Montessori Studies) is yet to run.

Since 2018 grass roots initiatives (not through a national association) have grown in number to support the staff in Montessori centres and schools. These have been designed and developed by dedicated Montessorians who have seen a gap existing in what Montessori teachers need:

- The ‘A to I Montessori Professionals’ who are a discussion and working group based in Sydney whose main goal is to support AMI A to I trainers in Australia and support new trainees (A to I Montessori Professionals, 2018). They have a Facebook site, offer professional development and meetings during the year.
- The ‘Montessori Collective’ who have organised meetings and a weekend retreat to provide discussions around Montessori work being the service of the child and renewing our commitment to reflection, growth, tolerance and collegial support regardless of your training and experience (Montessori Collective, 2018).

- Parent initiatives established, such as, Montessori Plus which educates, supports and guides parents with children aged between birth to 6 years in how to implement Montessori in the home (Montessori Plus, 2018).
- Individual Montessorians have answered the need to support and provide Montessori specific professional development, both workshops and online training, for Montessori teachers which has gained registration within each state government's teacher accreditation schemes.

The Australian government will only allow a graduate to teach if they hold a recognised university teaching degree and have registered as an accredited educator. With the establishment of both the National Professional Standards for Teachers and the Australian Professional Standards for Principals (AITSL, 2018) the future employment of an educational leader with no teaching experience seems unlikely. The Australian Government has introduced initiatives to raise education quality for children through raising the teaching quality and leadership quality in all settings.

### Limitations

Montessori education is not recognised widely in Australia as there are over 6000 primary schools and over 13,000 early childhood centres across Australia. Therefore, Montessori settings represent only 1.4% of the education sector. Finland education system is the country's government system, Montessori in Australia is not in that league so many comparisons cannot be made between the systems. However, several aspects implemented in Finland's educational revival are an echo of Montessori's ideas and philosophy including persistence and using initiative to solve any problems.

For Montessori to be talked about as much as Finland the essential fact for Montessori settings is they need to employ Montessori's philosophy and practice in all they do and say. To spread the word that Montessori could actually be seen as the premier education system that Montessorians know is needed. A new Australian curriculum is being discussed in 2021/2022, so it will be interesting to see which Montessori educational aspects it will incorporate.

### References

- A to I Montessori Professionals. (2018). Facebook Group. Retrieved from: [www.facebook.com](http://www.facebook.com)
- ACARA. (2019). *My School website launches today. Press release. Retrieved from:* [www.docs.acara.edu.au/resources/ACARA\\_press\\_release\\_Final.pdf](http://www.docs.acara.edu.au/resources/ACARA_press_release_Final.pdf)
- ACECQA. (2018). *Early childhood teacher registration and accreditation.* Retrieved from [www.acecqa.gov.au/qualifications-early-childhood-teacher-registration-and-accreditation](http://www.acecqa.gov.au/qualifications-early-childhood-teacher-registration-and-accreditation).
- AMI UK. (2018). Schools and centres. Retrieved from <https://montessorisociety.org.uk/> page-18115

- Australian Government. (2019). *Universities and Higher Education - Study in Australia*.  
[www.studyinaustralia.gov.au/english/australian-education/universities-and-higher-education](http://www.studyinaustralia.gov.au/english/australian-education/universities-and-higher-education)
- Australian Children's Education and Care Quality Authority (ACECQA). (2021). *National registers*.  
 Retrieved from: [www.acecqa.gov.au/resources/national-registers](http://www.acecqa.gov.au/resources/national-registers)
- Beresford-Jones, S. (2021). *Montessori leadership philosophy re-examined and its influence on education quality as embodied in contemporary Montessori settings*. [Thesis statement in the study of Philosophy of Montessori.] Canberra: Montessori Progress.
- Butler, P. (2016). No grammar schools, lots of play: the secrets of Europe's top education system. *The Guardian newspaper*. [www.theguardian.com/education/2016/sep/20/grammar-schools-play-europe-top-education-system-finland-daycare](http://www.theguardian.com/education/2016/sep/20/grammar-schools-play-europe-top-education-system-finland-daycare)
- Colagrossi, M. (2018). *10 reasons why Finland's education system is the best*. Big Think.  
[www.bigthink.com/mike-colagrossi/no-standardized-tests-no-private-schools-no-stress-10-reasons-why-finlands-education-system-in-the-best-in-the-world](http://www.bigthink.com/mike-colagrossi/no-standardized-tests-no-private-schools-no-stress-10-reasons-why-finlands-education-system-in-the-best-in-the-world)
- Colgan, A. (2016). The epistemology behind the educational philosophy of Montessori: Senses, concepts and choice. *Philosophical Inquiry in Education*, 23(2), pp. 125-140
- Cossentino, J., & Brown, K. (2017). What's Going on in This (Developmental) Classroom? DERS Working Paper, (11). <https://static1.squarespace.com/static/57aa72bf59cc6881bc28d9e2/t/595e68085016e11e1feaa0ac/1499359245730/DERS+Working+Paper+%231.pdf>
- Dickinson, K. (2019a, February 2019). *How does Finland's top-ranking education system work?* Facebook Post. Retrieved from [www.bigthink.com/politics-current-affairs/finland-education-system-criticisms](http://www.bigthink.com/politics-current-affairs/finland-education-system-criticisms)
- Dickenson, K. (2019b, February 2019). *Finland's education system is failing. Should we look to Asia?* Facebook Post. Retrieved from [www.bigthink.com/politics-current-affairs/finland-education-system-criticisms](http://www.bigthink.com/politics-current-affairs/finland-education-system-criticisms)
- Feez, S. (2013). *Montessori: The Australian Story*. Sydney: UNSW Press.
- Finland Ministry of Education and Culture (2019, 28.11.19). Press Release. *This Government term's most significant development programme for early childhood education and care and basic education set to begin*. <https://minedu.fi/en/frontpage>
- Grant Thornton (2019). *Voluntary Administrator's Report: Montessori Australia Foundation Limited (Administrators Appointed) ACN 104 887 309 and Maryden Pty Ltd (Administrators Appointed) ACN 084 603 350 (the Companies)*. [www.grantthornton.com.au/globalassets/1.-member-firms/australian-website/creditors-documents/2019\\_gtal\\_montessori-and-maryden\\_voluntary-administrators-report-28092019](http://www.grantthornton.com.au/globalassets/1.-member-firms/australian-website/creditors-documents/2019_gtal_montessori-and-maryden_voluntary-administrators-report-28092019)
- Grazzini, C (2013). Maria Montessori's Cosmic Vision, Cosmic Plan, and Cosmic Education. *The NAMTA Journal* 38(1).
- Hancock, L. (2011). Why Are Finland's Schools Successful? *Smithsonian Magazine*.  
<https://www.smithsonianmag.com/innovation/why-are-finlands-schools-successful-49859555/#FLD1M8O7BMc70HLZ.99>
- Hani Morgan (2014) Review of Research: The Education System in Finland: A Success Story Other Countries Can Emulate, *Childhood Education*, 90(6), 453-457, DOI: 10.1080/00094056.2014.983013
- Hayes, D. (2015, March 2015). *Finland is throwing away everything that made its schools the best in the world*. Blog Post. [www.theconversation.com/finland-is-throwing-away-everything-that-made-its-schools-the-best-in-the-world-39445](http://www.theconversation.com/finland-is-throwing-away-everything-that-made-its-schools-the-best-in-the-world-39445)
- Joosten, A. M. (1970). *Foundations of Montessori Pedagogy*. India: Indian Montessori Train Courses.



- 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. (2019). Shunned and admired: Montessori, self-determination, and a case for radical school reform. *Educational Psychology Review* (31), 939–965
- Montessori Australia (MA). (2019). Website. [www.montessori.org.au/montessori-australia](http://www.montessori.org.au/montessori-australia)
- Montessori Australia Foundation (MAF). (2017). *Annual Reports*. Retrieved from [www.montessori.org.au/publications/annual-report/](http://www.montessori.org.au/publications/annual-report/)
- Miller, L. B., & Bizzell, R. P. (1984). Long-term effects of four preschool programs: ninth-and tenth-grade results. *Child Development*, 55(4), 1570-87
- Montessori Collective (Heartspace). (2018). Facebook Group. Retrieved from: [www.facebook.com](http://www.facebook.com)
- Montessori, M. (1913). *The Montessori Method: Scientific pedagogy as applied to child education in the Children's Houses*. New York: Schoken Books.
- Montessori, M. (1913). *The Montessori Method: Scientific pedagogy as applied to child education in the Children's Houses*. New York: Schoken Books.
- Montessori, M. (1936). *The Secret of Childhood*. London: Sangham Books Ltd.
- Montessori, M. (1942). Montessori's speech for inauguration of first Children's House.
- Montessori, Mario. (1956). The Human Tendencies and Montessori Education. In AMI (Ed.), *AMI* The Netherlands: AMI.
- Montessori, M. (1967). *The Discovery of the Child* (M. J. Costelloe, Trans.). New York: Ballentine Books.
- Montessori National Curriculum (MNC), *Montessori Australia Foundation*, (2011). Eds Feez, S., & Miller, J. Sydney: MAF.
- Montessori Plus (2018). *Parent Initiative*. Retrieved from: [www.montessoriplus.com.au](http://www.montessoriplus.com.au)
- Morrison, D. (2017). *What does Finland get so right about education?* Natural Parent Magazine.
- 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](http://www.montessori-namta.org/faq/Montessori.../How-many-Montessori-schools-are-there)
- New South Wales Education Standards Authority, NESAs. (2018). Registered and accredited non-government schools (NSW) manual. Retrieved <http://educationstandards.nsw.edu.au>
- Park, S, & Peterson, C. (2009). Positive psychology. *Reclaiming Children and Youth*, 18(2), 3.
- Rathunde, K. R., & Csikszentmihalyi, M. (2005). Middle-school students' motivation and quality of experience: A comparison of Montessori and traditional school environments. *American Journal of Education*, 111. P.347-371.
- Sahlberg, P. (2009). Educational change in Finland. In *Second International Handbook of Educational Change* (pp. 323–348). Dordrecht, Netherlands: Springer.
- Sahlberg, P. (2011). Lessons from Finland. *American Educator*, 35(2), 34-38.
- Sahlberg, P. (2013). Teachers as leaders in Finland. *Educational Leadership*, October, 36-40
- Sarjala, J (2013). Equality & cooperation: Finland path to excellence. *American Educator*, 37(1),32-36
- SBS News. (2019, August 2019). *Finland's education system is one of the best in the world – this is how it works*. Facebook Post. Retrieved from [www.sbs.com.au/news/](http://www.sbs.com.au/news/)
- Sydney Montessori Training Centre (SMTC). (2018). *AMI Training*. [www.montessoritrainingcentre.com](http://www.montessoritrainingcentre.com).

Tucker, M. (2012). Teacher quality: What's wrong with U.S. strategy? *Educational Leadership*, 69(4), 42-46.

World Economic Forum. (2019, April 2019). *Finland's education system*. Facebook Post. Retrieved from [www.youtube.com](http://www.youtube.com)

Ylä-Jääski, J. (2013, December 2013). Facebook Post. *Education in Finland: Pisa isn't the full story*. The Guardian. Retrieved: [theguardian.com/teacher-network/teacher-blog/2013/dec/04/](http://theguardian.com/teacher-network/teacher-blog/2013/dec/04/)

### Appendix A: Summary of Comparisons between Finland & Montessori education systems

	<b>Finland education system</b>	<b>Montessori education system</b>
Education System	100% state funded	Receive some state funding
	No school selection, privatisation, choice, competition or league tables	Australian schools have selection, choice, competition, privatisation and competitive league tables
	Mandatory school counselling programs	Children remain in same class for period of 3 years, deep relationships build trust with teachers
	Aim for curriculum to lead to students researching, seeing the 'joy of learning'	children have an inherent characteristic to engage with the developmental curriculum 'for the sheer pleasure of the activity itself'.
	Students rarely take exams, with one standardised test at 16 years of age	No exams, child can participate in annual national standardised testing (NAPLAN).
	No ability streaming and lower achieving students set the pace in many classrooms	No ability streaming, only mixed ability and mixed age classes with each child studying at their own developmental level and pace, with older children leading, assisting the younger children
	No homework until teenagers.	No homework at all.
	Children receive free school meals at school	No free school meals in Montessori settings or indeed in Australian traditional schools either.
Educators	Teacher training programs are 100% state funded	Montessori diploma courses can attract sponsorship from schools. Australian government does not fund university places for teaching degrees, provides loans.
	Teachers support the different learning styles and needs of students as they have learnt pupil's individual needs. Research projects for students that are interdisciplinary and 'phenomenon-based'.	All children receive individual attention & reach their potential. Holistic approach aims to enable education for life through individualised learning, following Montessori curriculum, according to Montessori's theories on planes of development, sensitive periods, absorbent mind. human tendencies, Cosmic Education.
	Developed a new type of highly qualified teacher who can differentiate instruction, more expertise, offer alternative teaching methods, and had more expertise to teach a wider variety of students. Schools develop informal relationships in a relaxed setting.	Montessori training develops a new teacher where ideal culture within her settings is mutual respect. Teachers need skills in observation, child development, knowledge of materials. Classes develop informal relationships between children and their teachers and have very relaxed settings as children work at their own pace not one set by an adult.
	Provides support for student's needs with teachers assessing how well their students achieve learning goals, students with same teacher for 6 years	Children have same teacher for 3 years. Children learn how to get along in group whilst being individuals. Child-centred, teacher decides what is taught but this is based on needs/nature of children.
	Teachers spend 4 hours a day in class, shorter school hours ensured quality approach to education, not quantity	Montessori teachers spend the entire school day in the class depending on the age group being taught (6-7 hours).
	For every seven students there is one teacher or assistant in Finland's schools	Adults to children is based on state requirements. In Montessori classes, majority of classes have two adults.
	Finland education give teachers two hours a week to participate in professional development opportunities	Australian Government has accreditation requirements (20 hours/year) to strengthen quality of teachers, but these are considered the individual's teacher expense. It would average 30 minutes a week.
Schooling	Holistic learning is aimed for by creating an environment of individualised guidance	Montessori was concerned with holistic development of every child. Key features: prepared environment to remove obstacles to child's development

**The Author:** Sarah is fully committed to the values and concepts underpinning inclusive education with over 30 years involvement in Montessori education. She holds Montessori diplomas from birth to 12 years, Masters of inclusive education and leadership, Montessori philosophy research studies and early childhood leadership. She has worked as class educator, school leadership roles and inclusion coordinator. Keeping up-to-date and informed about best practice, she has studied education philosophies, including Montessori's Theory, in great depth. Her employment has included as an intervention specialist for 5 to 18 years old; University of Sydney Indigenous tutorial assistance tutor; Montessori deputy principal; Montessori classroom director/guide; Montessori inclusion coordinator/head of department; Montessori professional developer of various initiatives. Published children's author and researcher.

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## MRA Support Guide:

### The Role of the Prepared Leader

Over the years of refining the Montessori theory during her lifetime the one constant was that Montessori leaders required deep and transformative Montessori training to understand the child's role in society (Montessori, 2015). Each training course, which usually lasted about six months, was composed of three main elements. These were Montessori's own lectures, a complete and systematic study of the didactic materials, and observations carried out in recognised Montessori Schools. Once participants received their diploma it "entitled the holder to open a school and call it a Montessori School" (Standing, 1957, p. 73). First and foremost was that all adults must hold true to Montessori's instruction, that the child holds the central status with the adult facilitating the child's development. (Montessori, 1942/1970).

The role of a prepared Montessori leader has a vastly different view than traditionally held. Adults work alongside children rather than become figures of authority (Kramer, 1976; Montessori, 1936/1983). Montessori placed an emphasis on leaders who need to allow for the repetition of the work with materials and free choice of activities. Montessori advocated that both rewards and punishments should be abolished for the children and saw no need for either collective rote lessons or the high desk for the educator in the classroom (Montessori, 1936/1983). Elements of the philosophy do not exist in material form, e.g., morals and virtues. Throughout her publications and during her trainings, she referred to these as part of her philosophy and decision making for Montessori settings, including "humility and patience" (Standing, 1957, p. 299), "the rightness and wrongness of actions" (p. 114). A definition of virtues & morals (Montessori, 1998, p.36; 1942/1970, p. 192/272; Standing, 1957, p. 114/298) characteristics that are frequently mentioned include: fairness (Montessori, 1942/1970, p.285), tranquillity (Montessori, 1967, p.151; 1949/1992, p.86), courage (Montessori, 1942/1970, p.255), patience (Mario, 1976, p.299; 1942/1970, p.255; Montessori, 1942/1970, p.278; Standing, 1957, p.299), perseverance (Montessori, 1942/1970, p.266; 1936/1983, p.153; Mario, 1992, p.20), charity (altruism) (Mario, 1976, p.214; (Montessori, 1949/1992, p.117; 1936/1983, p. 114), curiosity (Standing, 1957, p.177; Mario, 1992, p.99; Montessori, 1936/1983, p.162), creativity (Montessori, 2005, p.xiii; 1942/1970, p.241; 1949/1992, p.30; 1936/1983, p.55; Mario, 1976, p.94), love of learning (Montessori, 1942/1970, p.241/275; Mario, 1992, p.22), humility (Montessori, 1942/1970, p.274; 1949/1992, p.78; Standing, 1957, p.299), self-discipline (Montessori 1967, p.50; 1949/1992, p.105; Mario 1976, p.77), good manners/respect (Montessori, 1942, p.273; (1949/1992, p.30; 1936/1983, p.113; Mario, 1976, p.26)

Other researchers have echoed Montessori's view, (Ebbeck & Waninagayake, 2003; Lillard, 2005; Rodd, 2013), stating leaders should possess particular skills, attributes, virtues and traits. In addition, Gandhi (1945/2012) stated that by utilising the 'light' of people's greatest humility, the darkness of their egos can be dismissed. Babini (2000) established that improving schools is not a top-down, hierarchical process but rather a bottom-up process starting with the child. Bagby and Sulak (2013) found that Montessori's views of leaders' development, through self-motivation, self-awareness and self-regulation is embedded in her philosophy, practice and children as an "investment in human capital" (p. 6).

# Montessori Keystones: 2022 Autumn

**Allowing children to move freely** between the inside and outside of two Montessori 3 to 6-year environments

**Finland and Montessori education:**  
Comparison of these two educational systems.

The Role of the Prepared Leader  
Montessori's Theory of Child Development

*Find out how you  
can contribute  
to future editions*

**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)