



Review to Inform a Better and Fairer Education System

A conceptual framework for whole school design to support the whole child in rural and remote communities

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Background

Dr Montessori, a physician and psychiatrist, developed her philosophy of education by using the scientific method for her classroom research. Her holistic philosophy (which underpins the philosophy of her student, Jean Piaget, the “father of constructivism”) is based on the provision of:

- Education for the developmental phases and needs of the child.
- Child-led practice through empowerment, rather than teacher-led pedagogy.
- Dispositional growth
- The equal importance of emotional, physical, social, cognitive, and moral outcomes

More recent research by the Gessel Institute has shown that the needs and tendencies Montessori identified have not changed over time.¹ This theoretical framework holds that the purpose of education is the development of the whole child, rather than a narrower focus on the vocational or the domain of “qualification” as described by Biesta.² As Montessori puts it herself, “the human personality should be prepared for the unforeseen, not only for the conditions that can be anticipated by prudence and foresight”, requiring an adaptability in the face of such great change³, consistent also with what the challenges of recent years have shown us. We see this as consistent with Goal 2 of the Mparntwe Declaration.⁴

Montessori classrooms are designed for empowerment and wellbeing rather than control and obedience. The key education design features include an average of 25 students in three-year age groupings, a part-time classroom assistant who maintains the environment of activities, supports the harmonious culture, and reinforces the quality culture and values. Teachers are trained for larger age groupings that understand the developmental needs of children and can give them progressive challenges that are achievable. Classroom processes are designed to empower children to develop social skills, will, self-determination, flow, and dispositions that are valued. Building community capabilities within the classroom centre around empathy, relationships, and building trust.

Introduction

The Australian reform agenda seeks to provide a better and fairer quality education for all. We welcome the invitation to comment on recommendations as to how to fix a reform agenda still flailing by its own admission as documented in the *Review of the National School Reform Agreement: Study Report* (2022) and as compared against the Educational goals for young Australians as adopted in the Mparntwe Declaration⁵. Montessori Australia sees many of the factors within the Review’s scope as interrelated and holds that the critical discussion on classroom design and student agency has been relegated to the

¹ [Revised CDC Milestones and the Gesell Developmental Assessment System: – Gesell Program in Early Childhood \(gesell-yale.org\)](https://gesell-yale.org/)

² Giesta, B. (2015)

³ Montessori, M [(1948), 2000]

⁴ Education Council (2019)

⁵ Op cit.

background. A variety of strategies that have been proposed include a focus on the wellbeing of students, teacher retention, achievement, attainment and engagement, measurement and accountability, but lacking in considering the broader interrelated concept of embedding core systems enhancement.

This discussion paper provides a brief conceptual framework to explore Method, Manpower, Measurement, Materials, Management, and Machinery of the 'whole school' with the goal toward focusing on the 'whole child'. What part can the focus on redesigning (or re-engineering) quality educational systems play in remote, regional and rural education quality enhancement, and potentially in broader educational spheres?

Our recommendations to the Review are directed towards:

1. Academic, social and emotional outcomes
2. Applicability to remote, rural and regional communities in the re-engineering of classrooms with consideration of choice, multi-age spaces and empowered educators working with a developmental, constructivist pedagogy which can transfer across contexts and cultures
3. An emphasis on a whole school, collaborative and collegiate systems approach to reflective practice and wellbeing with consideration of local context

Driving improvement of educational outcomes (*Method, Materials and Machinery*)

Montessori schools number approximately 15,763 schools worldwide, can be found in 154 countries, with 9% government funded programs in the USA, China, Thailand, Germany, Canada, and Tanzania⁶. Jeff Bezos donated US\$2 billion in 2018 to build a network of free Montessori based early childhood centres in disadvantaged areas in the USA. The school sector in the USA has about 570 public district schools and charter Montessori programs, with 11 public Montessori programs currently in Australia.⁷

Maria Montessori's first school for disadvantaged children, opened in 1907 in San Lorenzo, Italy, and quickly gained worldwide attention for her students' astonishing cognitive, social and emotional growth. In the years that followed she was repeatedly invited to deliver lectures nationally and internationally to share her philosophy and practice throughout the world. Today, research continues into the effects of Montessori pedagogy on learning. Peer-reviewed studies over the last decade have shown significant and long- lasting effects on children's learning from Montessori education^{8 9 10 11 12}. Likewise, research has supported the benefits on wellbeing¹³ and engagement¹⁴.

⁶ Debs, M. de Brouwer, J., Murray, A. K., Lawrence, L., Tyne, M and von der Wehl, C.

⁷ [Schools and Centres Directory | Montessori Australia](#)

⁸ Demangeon, A., Claudel-Valentin, S., Aubry, A., Tazouti, Y (2023)

⁹ Lillard, A. S., Heise, M. J., Richey, E. M., Tong, X., Hart, A., & Bray, P. M. (2017)

¹⁰ Lillard, A. S. (2017)

¹¹ Christopher DeLuca & Scott Hughes (2014)

¹² Culclasure, B., Fleming, D. J., & Riga, G. (2018)

¹³ Lillard, A.S., M., Meyer, J., Vasc, D., and Fukuda, E. (2021)

¹⁴ Rathunde, K., & Csikszentmihalyi, M. (2005)

Re-engineering Educational Design: Three-year age groupings

The multiage classroom design, which goes further than traditional two age composite classrooms, is engineered to encourage and energise real choice, personal connection, and collaborative learning. Three-year age groups of children in developmental stages rather than chronological age, are given the time to develop at their own pace in a safe and supportive environment. Children cycle through being youngest (“awestruck follower”), then middle (“observant and sometimes overconfident apprentice”), then eldest (“experienced and nurturing leader”). This frees students of the expectation that they should be same as peers of the same age, reduces pressure and adds stability by preserving institutional memory of traditions, norms, rituals in returning and transitioning students. Classroom management and problems are more often worked out by students instead of being imposed top-down by teachers. Students respond more positively to direction from older peers thus they support the teacher. It makes possible genuine collaborative learning, allowing students to learn from one another at least as much as they learn from the teacher. Teachers give individual or small group lessons with students based on their readiness, while the other students in the class pursue activities of their own choosing, often under the guidance of the classroom assistant. Children learn through interacting with manipulative materials on the shelves, working intrinsically while the teacher is directly presenting new concepts to small groups.

The role of the teacher is to observe and introduce materials when the child seems ready. The three-year groupings orient children’s minds to an appreciation of diversity by prompting them to look for commonalities. Research suggests homogenous groupings tend to search for differences which promotes clique behaviour while children placed in diverse groups tend to look for commonalities).¹⁵ Children can construct their own understandings at their own pace with concrete experiences and invest more of themselves in an activity if they have had choice. Students build strong bonds of trust with the same teacher over three years. Teachers know their returning students, and which stories and activities will capture their imaginations and motivate them. This trust allows freedom of movement and association that in single-age classroom might lead to chaos and undermine accountability. Children feel safe enough to risk making mistakes and see their mistakes as opportunities to learn rather than personal failures.

Our concern is that the focus in the current educational narratives places relationships as secondary which erodes trust and connection between those in the classroom, impacting upon mental health and wellbeing. Standardised tests become less important than authentic assessments which show meaningful progress over time. This seems consistent with the NSRA statement that improved student wellbeing is both a desired outcome of schooling and a means to improve learning outcomes.¹⁶ Since each child is with their teacher for three years there is an opportunity for the teacher to engage with parents and caregivers and develop these relationships. Children in multi-aged classrooms experience the benefits of this design over and over again as they pass through each stage of development from the birth to 3-year-old classroom, the 3- to 6-year-old classroom, the 6 to 9 year-old classroom, the 9 to 12 year-old classroom, the 12 to 15 year-old classroom, and the 15 to 18 year-old classroom. Knowing what to expect can help to reduce anxieties across transitions.

¹⁵ Thorn, B. (1993) *Gender Play: Boys and Girls in School*

¹⁶ p.28

Education Ministers have agreed to review the role of teaching assistants and school support staff, along with initial teacher education students, to determine how they can be deployed to reduce teacher workload as part of the National Teacher Workforce Action Plan.¹⁷ Montessori Australia supports an informed review of this important role in classrooms. Within Montessori classrooms assistants play a significant role with training that can include structured formal orientation, on the job training, or they conditional or provisional teachers seeking more classroom experience, or even teachers who have decided to leave the profession due to the documented reasons in AITSL's report. Rather than being itinerant workers with temporary connections with students, assistants within our context are genuine partners with the teacher, integral to the ongoing observation of skill progression, support of literacy and numeracy implementation plans, listen to reading, spelling support and document completion of activities as set by the teacher. Assistants can offer valuable continuity where teaching staff are absent, ensuring minimal disruption to the classroom teaching and learning.

Some schools have been innovative in the recruitment of assistants, starting them in the early years' rooms (as Certificate III or Diploma apprentices in partnership with the TAFE) providing a pathway to move into the primary classroom as an assistant or to eventually train as a teacher. Others have incentivized the training of their own high school students to become after school care workers and have encouraged the development of future psychologists, engineers and teachers who have eventually become teachers. This is a very important consideration for rural and remote areas to engineer how they can be part of the solution for providing pathways for their own community.

Transferability and applicability to remote, rural and regional communities (Method, Manpower and Materials)

The NSRA (2022) makes a distinct finding to build on efforts to improve teacher workforce demand and supply data would enable governments to better identify and respond to workforce shortages¹⁸.

There is a clear demand for Montessori teachers in the public and independent system¹⁹ however as Montessori training is currently not recognized as initial teacher education, early childhood education and care or even as recognition of prior learning in Australia by State ITE authorities, potential teachers must train twice, at significant cost and working time lost, creating an enormous barrier for Montessori teachers. Recognised Montessori training and alternative education modules (Montessori, Steiner, International Baccalaureate) at university would clearly expand the pool of qualified Montessori teachers in Australia. This could also address the concerns as reported, many pre-service teachers who report a lack of opportunities to practise teaching in Australia, particularly in a greater range of school settings²⁰. Further complications arise within the public sector due to the transferability of staff and leadership which can erode programs where trained staff work.

The transferability across cultures based around the use of Montessori manipulatives (specifically in the K-6 classrooms) and progressions through a curriculum has, likewise, been explored in international

¹⁷ NSRA p14

¹⁸ p.43

¹⁹ [Job Openings | Montessori Australia](#)

²⁰ Fahey (2022), cited in the NSRA, p. 178

research.²¹ Significant work has also been carried out within Australian First Nations communities. The work of Holmes (2018) describes Montessori practice as showing “promising evidence of being more harmonious with Indigenous culture, beliefs, and pedagogy”. Students were more likely to engage in the experiences with enthusiasm and interest, as they had choice in and control over their learning, “as the space belongs to the students, and not to the teacher who only prepares the environment, allowing parents, caregivers, wider community to feel safe and secure entering the learning environment because the children have ownership, not the teacher”²².

The NSRA (2022) has highlighted the need for more widespread use of culturally responsive curriculum and pedagogies and in particular, practices such as two-way learning, which value and embrace Aboriginal and Torres Strait Islander knowledges and languages,²³ a feature delivered with success in the culturally responsive practices of Rioux, Ewing and Cooper²⁴ which resulted in greater engagement from secondary students because of the three-staged lessons, the repetition, freedom and the privileging of local Aboriginal knowledge.

Holmes (1918) in her research, makes various recommendations including that :

- a. Tertiary institutions and system authorities should alert preservice teachers and new teachers in remote locations to alternative methods of education, including Montessori pedagogy.
- b. Education training providers should include Montessori and non-Montessori training in remote locations. Training providers may reconsider the way training and professional development is delivered to teachers and the wider Indigenous communities to make it more accessible, again, going some way to address teacher shortages.
- c. Government agencies designing curriculum for Indigenous students should consider the ways in which Montessori pedagogy aligns with traditional Indigenous child-rearing techniques.²⁵

Whole school, collaborative and collegiate systems (*Management and Machinery*)

In 2021 Montessori Australia developed a framework as the basis for this conceptual framework²⁶ which aligns to the National Quality Standards of analysis and reflection upon an operational system,²⁷ to support whole school self-assessment within schools. Montessori schools and services most commonly cover the ages of 3 -12, or 3-15 and therefore, cross over the three levels of education (preschool, primary and middle school). We have observed, although anecdotally, in the past two years of our implementation, that the early childhood educators have a clear understanding of self-assessment and can embed the additional requirements to be authentic Montessori services. By comparison, school leaders appear to perceive quality self-assessment of primary and secondary education as additional to the day-to-day management of a school. Key questions have emerged from this process, some of which include whether this is because the requirement of self-assessment is mandated practice in Early

²¹ Lillard, A, Tong, X., and Bray, P.M. (2023)

²² Holmes, C. (2018)

²³ p.25

²⁴ Rioux, J., Ewing, B., & Cooper, T. J. (2019)

²⁵ Holmes, C. (2018) p.45

²⁶ [Montessori Quality: Authentic Practice | Montessori Australia](#) and [MQAPBrochure.pdf \(squarespace.com\)](#)

²⁷ [National Quality Standard | ACECQA](#)

Childhood, and it is not in the primary and secondary levels or is it because school systems are more complex, have additional administrative requirements, different policy and leadership priorities and require more resources to coordinate self-assessments?



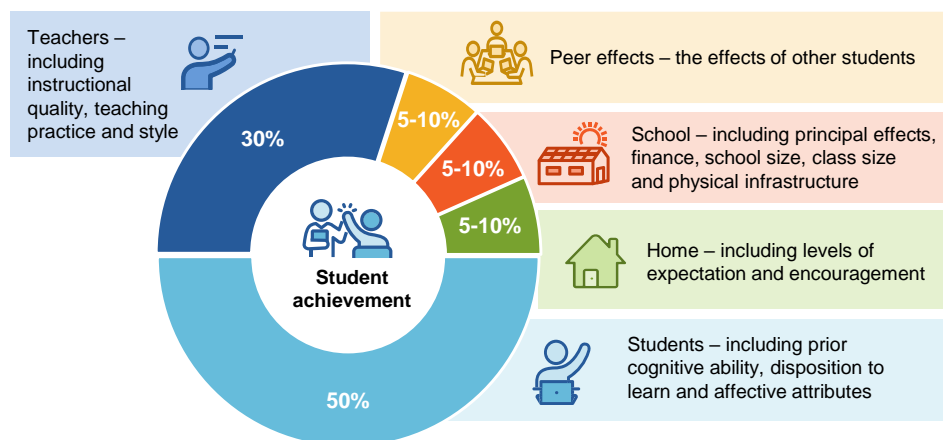
Figure 1. Montessori Quality: Authentic Practice Framework

Supporting Quality Culture

Effective teaching has been described as the single most influential ‘in-school’ factor for student outcomes as illustrated in Figure 2 below. Effectiveness is determined by both teacher quality (the attributes of an individual teacher) and quality teaching (effective teaching practices).

Figure 2 – Variance in student achievement explained by different domains of influence

Achievement is driven by a range of factors inside and outside the school gate^a



a. These student and home level factors are affected by the child and family’s wellbeing, which are influenced by the family’s context and environment and broader policy settings.

Source: Productivity Commission, adapted from Hattie (2003) as cited in NSRA: study report (2022)

We value an internal, rather than external, systems approach to reap more contextualized benefits for schools to improve quality. Montessori was steeped in the scientific method in her training in medicine, psychiatry and anthropology, spending decades researching her methods in thousands of classrooms around the world. The National Center for Montessori in the Public Sector (US) has published indicators for quality assurance that have been used for over a decade in the public sector in the USA to assist schools to assess the quality of their educational program. Their *Montessori Assessment Playbook* (2019) publishes over 30 tools for educators to use to monitor whole school quality systems for any educational model. The Developmental Environmental Rating Scale (DERS) is a classroom observation tool that measures environmental and behavioural qualities that have been researched to support outcomes such as empowerment of students, thinking skills, social and emotional development of executive functions and “flow”. This process provides meaningful, contextualized data for whole school and reflective practice in schools.

Concluding remarks

We thank the Expert Panel for the opportunity to meet earlier and to submit our ideas to inform the next National School Reform Agreement. In summarizing, we see that the Australian educational landscape requires a re-design and re-engineering. We advocate for an approach which recalibrates the child at its centre within an educational framework that considers the context, culture and community with all their unique features. Transparency and accountability must co-exist alongside the internal systems of schools, empowering educators as collegiate and collaborative in driving stronger educational outcomes for the students with which they work. The alternative has not served us well in recent decades as reflected in the Review of the NSRA Study Report (2022).

There is an opportunity for rural, regional and remote schools and, indeed all schools, to re-think educational purpose and see the importance of the cultivation of relational practice to drive better outcomes and genuinely and systemically support wellbeing. Many alternative models may offer solutions. We acknowledge the need for more research within the alternative education space, particularly for Montessori practice within Australia and can see that this would be of benefit to all sectors.

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