### "HOW DOES MONTESSORI WORK?"

BY MIRA DEBS AND ANGELA K. MURRAY

# 1. What does research show about the way Montessori education supports a child's development?

Montessori teachers rely on child-centered, formative assessment strategies largely based on systematic observation to support the learning and optimal development of each child (Zoll et al., 2023). These strategies are based on the individualized nature of Montessori education, which meets each child's academic, social, and emotional needs with a focus on providing the right challenges at the right time in an environment supporting growth along a unique developmental path.

# 2. How is Montessori education aligned with the science of learning and cognition?

Dr. Montessori herself was a scientist and much of the theoretical foundation upon which she built an educational approach is supported by what we now know as the science of learning and cognition (Fabri, 2023). Dr. Montessori's unique contribution was to operationalize the results of her own observations along with ideas of her contemporaries into a comprehensive educational system. Areas of alignment with current science include the importance of a stimulating environment, how children acquire language from their environment, the role of movement (especially the hands) in learning, and the progression from concrete to abstract thinking (Fabri, 2023; Laski and Wang, 2023).

# 3. How do Montessori children fare academically as well as socially and emotionally?

Since Montessori education is a whole-child approach, research on its effectiveness considers diverse outcomes. A growing body of evidence shows Montessori's success not only in developing academic skills, but also executive functions and social problem-solving skills (Manship, 2023). Studies suggest positive outcomes for children of color and low-income students in the United States (Manship, 2023), as well. Research studies are also demonstrating evidence of Montessori success in other skills known to support learning such as motivation, mastery orientation, creativity, and learning from mistakes (Basargekar and Lillard, 2023; Denervaud, 2023; Manship, 2023)

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### 4. Is there any research into how children transition from Montessori into non-Montessori types of education? For example, where there is not a Montessori adolescent program available after elementary.

While limited because longitudinal research with large, unbiased samples and appropriate controls necessary for rigorous alumni tracking is challenging, published studies have suggested that students with five to six years of Montessori experience in their early years demonstrate strong academic performance and superior psychological well-being in high school and college when compared to students with more conventional early educational experiences (Dohrmann et al., 2007; Shankland et al., 2009; Shankland et al., 2010).

### 5. Does Montessori work in ethnically and culturally diverse populations?

According to the 2022 Global Montessori Census, there are an estimated 15,763 Montessori schools in 154 countries. This statistic speaks to the wide-ranging adoption of Montessori education in diverse communities around the world.

# 6. Is Montessori culturally responsive? Could you give us some examples of Montessori applied in global settings.

There are many instances of educators creating culturally responsive Montessori classrooms, but much depends on the orientation of the individual educator and the focus of the school.

Here are some examples of the ways that Montessori education is similar to Indigenous child-rearing traditions, or educators are adapting Montessori to make it culturally responsive:

- Scholars and educators have noted Montessori education's alignment with Indigenous child-rearing traditions with a focus on early independence, children caring for themselves, learning by doing, and being part of a community supported by peers (Murray et al, 2023; Junnifa Uzodike, pers. comm.).
- Montessori materials for learning to read are produced in many different languages and support children's language development in mother-tongue languages.
- Many educators bring stories and materials together to decorate their classroom in a way that reflects the local culture and traditions of their students.
- A group of American Montessori educators are working on a project called "Renewing
  the Montessori Curriculum" to make changes to the Montessori curriculum to make
  it more culturally responsive and less Eurocentric. The team is rewriting lessons and
  stories, creating new lessons and stories, as well as developing Montessori material to
  be used in classrooms.

### 7. How many public Montessori schools are there? How can we make Montessori more accessible to more families?

Of the nearly 16,000 Montessori schools, data from the 2022 census shows that 9 percent are public with the largest concentration of public Montessori schools in the United States, Thailand, India, and the Netherlands. It's great to celebrate these approximately 1,600 schools and recognize that the Montessori movement as a whole has a great deal of work to do in order to make Montessori education available to a wider population of students.

A significant way to expand public Montessori is through advocating for public education policy that supports Montessori education. National Montessori organizations are best poised to advocate for high-quality Montessori in their country. For example, through national advocacy, government recognition for Montessori teacher training is underway in Kenya and ten American states. Australia has recognized a national Montessori curriculum.

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