

Rigorous meta-analysis says Montessori works

The most thorough
 and exhaustive
 report
 to date



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In a systematic review of Montessori research, researchers from an internationally recognized research organization found that **Montessori education outperformed traditional education on a wide variety of academic and nonacademic outcomes.**

The search and review process, published in Campbell Systematic Reviews by the Campbell Collaboration*, narrowed the field to examine 32 studies which met stringent inclusion requirements. In so doing, they found high-quality evidence for Montessori's effect on academic and non-academic outcomes

The full report is 74 pages densely packed with text, tables, and references. The "plain language summary," excerpted here with emphasis added, tells the story. Read the full report and the summary at onlinelibrary.wiley.com/doi/10.1002/cl2.1330.

Plain Language Summary

Montessori education significantly impacts academic and non-academic outcomes

Relative to traditional education, Montessori education has ... **meaningful positive effects** on children's **academic and non-academic (executive function, creativity and social-emotional) outcomes.**

What is this review about?

How best to educate children is an issue of enduring concern, and **Montessori is the most common alternative to the conventional education system.** Montessori includes a full system of lessons and hands-on materials ... presented individually, and embedded in a philosophical framework regarding children's development and its optimal conditions.

The term Montessori is not trademarked, and, therefore, its implementation can vary. We studied the range of variations included in the literature, which likely reflects the range of implementations encountered in the world. We also compared Montessori with a range of control conditions described in the literature as traditional (sometimes referred to as conventional, or business-as-usual), reflecting the implementation of traditional education in the real world.

What is the aim of this review?

This review examined whether children who receive Montessori education have better academic and non-academic outcomes than children who receive traditional education. This review also examined whether certain elements moderate the effects of Montessori education (i.e., grade level, public vs private Montessori settings, random assignment, treatment duration and length of follow-up measurements).



What studies are included?

From a search yielding over 2,000 studies, the review evaluated 32 of the most rigorous Montessori studies,

with publication dates ranging from 1970 to 2020. Study participants were spread across age levels: preschool, elementary school and middle and high school.

The studies took place in eight countries: the USA (18 studies), Turkey (four studies), Switzerland (three studies) and one each in England, France, Malaysia, Oman, Iran, The Philippines and Thailand.

How effective is Montessori education?

On academic outcomes, **Montessori students performed about 1/4 of a standard deviation better than students in traditional education. The magnitude of these effects ... could be considered to be medium-large to large when compared to studies in real-world school contexts involving standardized tests.**

...

The effect sizes for academic outcomes are similar to those obtained in other studies that compared "No Excuses" charter schools to business-as-usual urban schools.

...

Montessori students performed about 1/3 of a standard deviation higher than students in traditional education on non-academic outcomes, including self-regulation (executive function), well-being at school, social skills and creativity.

The magnitude of Montessori education's effects was greater for ... preschool and elementary school than for middle and high school ...

What do the findings of the review mean?

Across a wide range of implementations (likely reflecting the range of Montessori implementations in the real world) ... **Montessori education has a nontrivial impact on children's academic and non-academic outcomes.**



* What is Campbell?

The Campbell Collaboration is an "international research network which publishes high quality systematic reviews of social and economic interventions around the world," according to their 2017 Annual Report. They produce Campbell Systematic Reviews on hundreds of topics including education, crime and justice, and international development, to name just a few, which are widely read and cited by government organizations and policy-makers worldwide. This review is yet another marker of how Montessori education is increasingly being seen as an area worthy of serious study for its impact and potential.

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