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Test-free system 'gives children a better start in life'

Pupils who learn at their own pace in Montessori schools may have an advantage over those in traditional classrooms

By Alexandra Fread

Join the debate

CHILDREN who attend Montessori schools, at which tests are banned and pupils of different ages are taught together and allowed to learn at their own pace, develop better social and academic skills than those at conventional schools, according to research.

By the age of 5, children at Montessori schools are better at basic word recognition and mathematics, and are more likely to play co-operatively with other children. By the age of 12, they are more creative and better able to resolve social problems, a US study suggests.

The findings, published in the journal *Science*, are likely to fuel the debate over the use of tests and the highly structured learning system in British primary schools, which is dominated by a compulsory literacy hour and daily maths lessons. They also raise fundamental questions about the purpose of education.

Angeline Lillard, Professor of Psychology at the University of Virginia, and lead author of the study, said: "A Montessori education sets children up better for adult life and gives them a better quality of life for the moment too, because they don't have the anxieties associated with testing.

"Academically, they end up in the same place or better as non-Montessori children, but they are much better at getting on in a community."

In Britain, Montessori education has tended to be restricted to the children of ambitious parents who can afford fees of up to £2,000 a term, but the Montessori movement is now beginning to influence teaching methods in the state sector.

Personalised learning plans that are being introduced in state schools have been part of the Montessori approach for 100 years — and last year the first state-funded Montessori primary school was opened.

Professor Lillard's study was based on 112 children from Milwaukee, Wisconsin. Fifty-nine attended a Montessori school, while a control group of fifty-three children attended conventional schools in the same area.

Parents of the children in both groups had entered their children into a local-authority lottery system to allocate school places. Because all the parents had wanted their children to go to the Montessori school, the researchers worked on the basis that both groups contained similar children and that their parents had similar aspirations for them. Socioeconomic backgrounds in both groups were also matched.

The children took cognitive and academic tests and were given challenges designed to test their social skills.

Among the five-year-olds, Montessori students not only performed significantly better in maths and English, but were also better able to see the world through others' eyes and performed better on "executive function", which is the ability to adapt to changing and complex problems.

Asked how they would deal with another child who was playing on a swing and not allowing others to use it, 43 per cent of Montessori five-year-olds said that they would try to persuade the child that what it was doing was unfair to the others. Only 18 per cent of the control group said the same.

The children at conventional schools were far more likely to be involved in rough play, such as "wrestling without smiling", the study said.

By the age of 12, the difference in academic scores between the two groups was less pronounced. But when they were asked to complete an essay that began with the phrase, ". . . had the best/worst day at school", the Montessori children wrote more creative stories with more complex sentence structures.

They were also better at suggesting positive solutions to problems, such as what to do if another child pushed in front of them in a queue. The Montessori children were more likely to stand their ground and point out that they had been there first, whereas the other children in the study were more likely to walk away.

Professor Lillard, who originally trained as a Montessori teacher, said that the findings could be explained by the Montessori children's superior understanding of social interaction. "In traditional schools we do things the opposite of the way children develop. They are told to learn alone and to be quiet. In Montessori schools the children can socialise as much as they want, and there is a lot more social interaction. The environment is not competitive, as there are no grades and testing," she said.

Linda Madden, principal of the Rainbow Montessori School in North London, said that the Montessori method focused on laying down the proper foundations for learning at every stage before children moved on to the next step.

"We do not teach children to count in an abstract way before they understand dimension and quantity. With writing, we don't teach letters until they have the pincer muscles to hold a pencil properly. We are very thorough — every step is based on the step before," she said.

SIX CORE AREAS OF LEARNING

- Maria Montessori was the first woman doctor in Italy in 1896
- In 1906 she founded the Children's House school for supposedly "unteachable" poor children in one of Rome's worst slums
- Most British Montessori education is at nursery level; there are a few primaries
- There is only one state-funded Montessori school in Britain, the 350-pupil Gorton Mount Primary in Manchester
- Dr Montessori believed that children's early years, from birth to six, are the period when they have the greatest capacity to learn and the greatest appetite for knowledge
- During this time children are particularly receptive to certain stimuli. Dr Montessori developed her own teaching aids and activities to take advantage of this
- Montessori education focuses on six core areas of learning: practical life, sensorial, language mathematics, cultural and creative activities