

An American study in academic journal *Frontiers in Psychology* has found that Montessori early years settings can improve outcomes for disadvantaged children.



The study, '[Montessori Preschool elevates and Equalizes Child Outcomes](#)', was carried out in a high-poverty American city which offered random lottery-based admission to two state-funded Montessori pre-schools.

Researchers tested 70 children from these schools and 71 'control' children from other, non-Montessori pre-schools over a period of 3 years with a range of cognitive and socio-emotional skill tests.

Although both groups were equal at the start of pre-school, the Montessori group consistently advanced at a higher rate than the control group in academic achievement, theory of mind and school enjoyment, and at certain time points in executive function and mastery orientation (building self-belief).

Researchers suggested higher academic achievement could be as a result of the Montessori materials and environment and more school enjoyment could stem from the choices provided by them.

The researchers added that the Montessori approach of combining different ages in one classroom could help to inform theory of mind due to the need to consider other children's emotions and mental states.

Montessori also made 'substantial headway' in reducing the achievement gap between disadvantaged children and their better-off peers. Montessori children from higher-income families were the highest performers in academic achievement by the end of the study, but the children from lower-income families in this group performed better than those in control schools.

At the beginning of the study, there was no difference between the academic achievement scores of the children growing up in lower-income households in each group. However, by the end of the study, the lower-income Montessori children had 'significantly higher' academic achievement than the lower-income control group, and the study showed that the correlation between achievement and income was halved by a Montessori pre-school education.

Professor Lillard said, 'The quality of a Montessori learning environment is clear; offering children the freedom to choose but also making the environment predictable. This predictability gives a feeling of security to children who are sometimes from chaotic backgrounds, and allows them to know what to expect. It gives them time for themselves and places an emphasis on respect shown by adults towards children, which gives children a positive model of human relationships.'