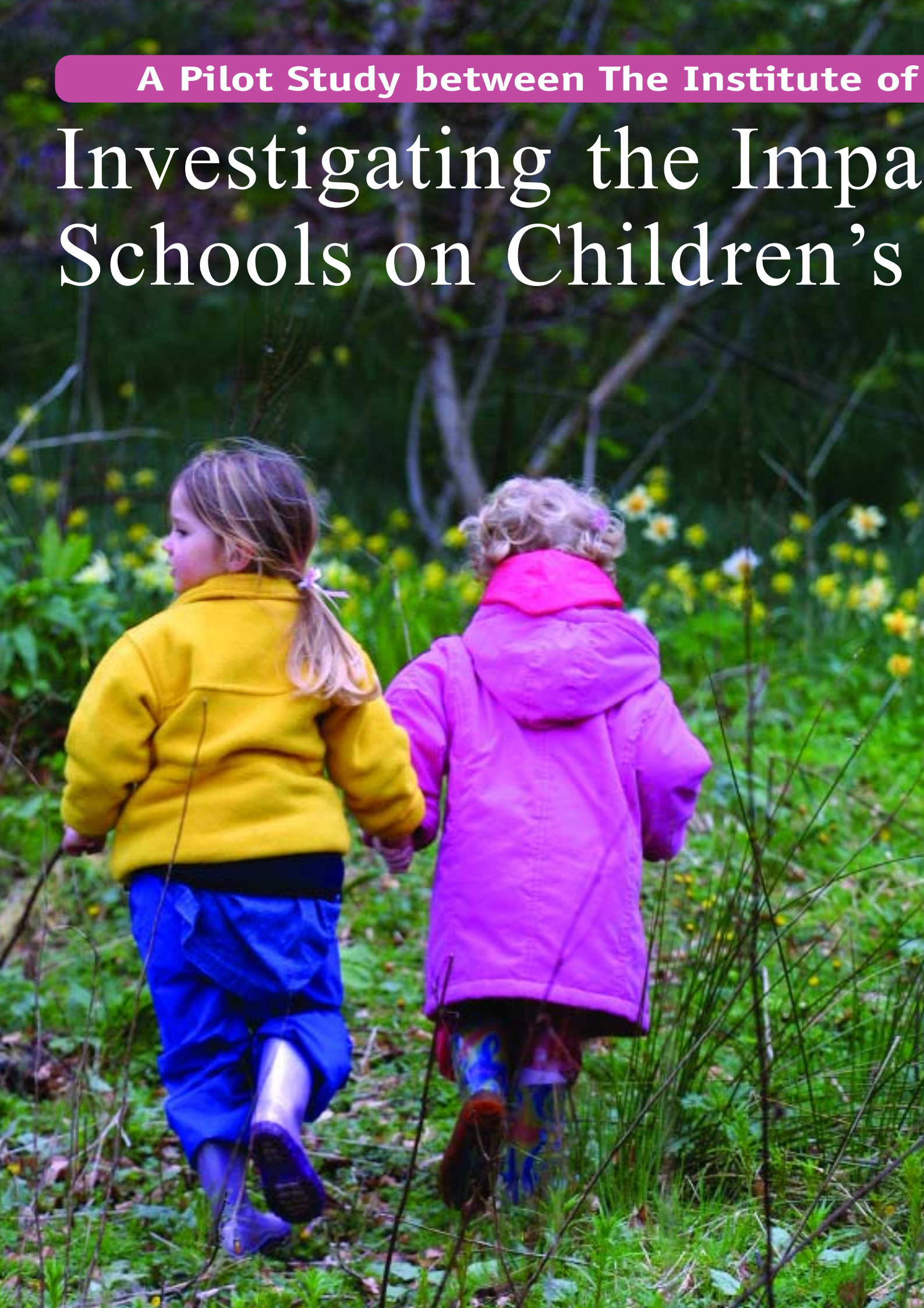


A Pilot Study between The Institute of

# Investigating the Impact of Forest Schools on Children's





# Education and Montessori St Nicholas: Impact of Montessori Educational Outcomes

## Background:

This study was commissioned in 2002 as a one-year project led by Professor Pam Sammons PhD with Karen Elliot Msc and in liaison with the Montessori St Nicholas Charity which funded the research. The aims of the project were to assess the value-added dimension of Montessori teaching in terms of attainment and progress in English and Mathematics and children's social and behavioural development. In addition the research sought to assess the benefits of length of time in a Montessori environment, impact of child characteristics and parental backgrounds and effects of individual Montessori schools on children's attainment and social behaviour.

## Methodology:

Children aged five to six years across 39 Montessori schools were the original sample group. In addition to cognitive skills, information was collected about social development. Where possible comparisons were made with a proxy national group of children of a similar age attending reception classes in state primary schools and in some cases independent schools, for whom details about pre-school experience were available. In addition PIPS assessments of reading and mathematics were also used as comparison statistics. Finally a parental questionnaire helped to identify details about children's parental backgrounds, family backgrounds and the home learning environment.

## Main findings:

- Montessori children attained relatively high scores in both reading and mathematics in relation to PIPS results – at both the beginning and the end of reception.
- Montessori children continue to show positive social and behavioural development in all areas. The study pointed out that differences in teachers' expectations across Montessori schools can also affect the overall picture.
- The length of time that children were in a Montessori setting was calculated at:  
24 months and under: 8 per cent



*Montessori children continue to show positive social and behavioural development in all areas.*

24 to 30 months:	21 per cent
30 to 36 months	24 per cent
36 to 48 months	27 per cent
above 48 months	20 per cent

In general for pre-reading a younger start was definitely associated with higher attainment. Children who started at 24 months or under show significantly higher attainment at age five years than those who were older when they joined a Montessori school (the 48 month plus group). For peer sociability a younger start is also associated with positive outcomes at both baseline and follow up.

- Other research indicates significant differences in the attainments of girls and boys at this age. In the Montessori sample there are no such differences in progress between boys and girls in Montessori schools for attainment at baseline or in progress in pre-reading skills. There are also no gender differences for peer sociability.
- Montessori children score highly in terms of the home learning environment – parental involvement in activities such as reading to the child, teaching songs and rhymes, painting and drawing, playing with letters and numbers and visits all contributed to this. Balanced against this has to be the information revealed

about parental backgrounds where 43 per cent of mothers and 34 per cent of fathers in the sample had degree level qualifications with around 43 per cent of mothers not working.

- Montessori children have high levels of cognitive attainment at rising five years in comparison with proxy national figures and also attainment levels are higher than those achieved by the comparison sample of children who had attended private day nurseries. These results should be interpreted with caution, given the generally more advantaged backgrounds of children in the Montessori sample.
- Finally there are significant variations between individual Montessori schools. It appears that some are more effective than others at promoting better progress or social and behavioural outcomes. Further research could illuminate the differences between schools, their policies and to what extent degrees of adherence to Montessori philosophy and methods affected outcomes.

Please note that this is a summary of the findings and should not be assumed to be a comprehensive review of the results. The full report with associated supporting evidence will be available later in the year. ■