

**John Clarkson** highlights the latest research which validates many of Montessori's original insights.

### Effects of Television

**Sometimes** a single piece of research provides a dramatic new insight into a long-standing issue. More commonly there is a steady drip-feed of results until the evidence becomes overwhelming. The latter is perhaps the case with the effects of TV on children. This research area was mentioned in the April-June Montessori International Research Watch and the latest piece to add to the puzzle has come from Dr Louise Hardy's team at the University of Sydney, published in the February 2009 issue of American Journal of Preventative Medicine. They were specifically looking at the effect of TV watching on cardiovascular health and they found a range of effects. One of the statistics that they discovered was that, for 13-15 year old girls, watching over four hours a day was linked to no less than a 50% reduction in fitness! This is truly

despite some examples of very good teaching, in general children cannot apply their mathematical learning to everyday life. This, they feel, is due to 'teaching to the test' rather than teaching for understanding.

In Montessori classes, children can use a mathematical activity until they themselves feel they are happy with it, and can move on with confidence - not just because the other children are being moved on. The other (interim) report was by Pricewaterhouse-Coopers at <http://www.dcsf.gov.uk/research/data/uploadfiles/dcsf-rr065.pdf> on the new government initiative to enhance personalized learning by having single-level tests (taken on readiness) and individual tuition available as needed. These are laudable aims, but PwC found major problems both with the tests (appallingly low pass rates) and with the logistics of providing

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alarming. Hardy's overall conclusion was that more than two hours a day would damage children's health. What did Montessori say so long ago about hands-on activities and nature? And what would she think nowadays?

enough one-to-one tutors. In Montessori classes it is the prepared environment that is the central 'teacher' and there is no external testing (just as there are no external rewards). When will they ever learn?

### Montessori/ Educational Research

**Many, many** years ago Montessori famously proclaimed that her New Children would build a New World. It has not quite happened like that, of course, and it is worth asking the question why. Is there any relevant

### Teaching Mathematics

**Two other** recent reports also reinforce earlier studies. An Ofsted report on maths teaching, Mathematics: Understanding the Score, available to download from the 'Thematic Reports' section of Ofsted's website, notes that,

*Montessori encouraged hands on activities for healthy development*



*In Montessori classes, children can use a mathematical activity until they are ready to move on with confidence.*

research which might help to provide an answer?

The first point to make is that research does not provide simple answers, ever. John Chattin-McNicholls, author of The Montessori Controversy and professor of education at Seattle,

Montessori education? One way might be to look at high achievers, at least two Nobel prize winners (Gabriel Garcia Marquez for literature in 82 and Eric Cornell for his work on atomic theory in 2001) were Montessori children. Is that a significant proportion?

observed (in a paper included in Loeffler M. (ed.) (1992) Montessori in Contemporary American Culture Portsmouth NH, Ginn Custom Press) that early childhood research is bedevilled by problems such as small sample sizes, short-term sampling and confounding the effects of the teacher and the educational model by using single representatives of a model. In addition Montessori research has problems in that there is such a wide variation in Montessori practice and there are few standard measures to assess Montessori goals (such as normalization, etc.)

Secondly, Montessori is still a minority approach. How many Montessori schools are there world-wide? How does that compare with the totality of schools? Of the children in Montessori schools, how many have the benefit of Montessori right up to the age of 18? No-one knows the correct answers to these questions but they are obviously going to be small numbers relatively. So how do we measure the effectiveness of

Again we do not really know because we do not know the numbers. There is the meat there for a major research project. However, general educational research has shown, fairly conclusively, that quality nurseries have a positive effect on children (and, contrariwise, that poor ones have a negative effect, and also that prolonged hours before the age of two can increase anti-social behaviour.) These were some of the conclusions of the EPPE (Effective Pre-school and Primary Education) project's latest report (see <http://www.ioe.ac.uk/ecpe/eppe3-11/eppe3-11pubs.htm>). This is possibly one of the most significant reports on early years and primary education in the UK and its findings underlie Sure Start and the EYFS. There is much in the reports to support Montessori practice, and much that we can learn from, but the critical conclusion is the importance of high quality provision.

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