The Primary Review

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RESEARCH BRIEFINGS
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LEARNING AND TEACHING IN PRIMARY SCHOOLS: INSIGHTS FROM TLRP

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This briefing draws on Primary Review Research Report 2/4 *Learning and Teaching in Primary Schools: Insights from TLRP*, by Mary James and Andrew Pollard. The report was commissioned as a special synoptic survey of evidence and implications to date from the ESRC Teaching and Learning Research Programme (TLRP). **The full report, including details of sources consulted, is available at www.primaryreview.org.uk.**

Scope and character of the research

The TLRP is the UK's biggest ever programme of research in teaching and learning. The survey for the Primary Review is based on the 19 projects within the TLRP's portfolio, including three 'associate projects', which involved primary schools or pre-school settings.

The methodological approaches adopted by projects included classroom experiments, large-scale quantitative surveys, in-depth qualitative case studies and combined approaches. The majority of projects could be described as 'development and research': they set out to stimulate some activity, innovation and change and to research the consequences.

The survey also draws on cross-Programme thematic work commissioned to add value to project work.

Main findings grouped thematically

Learning and teaching in specific areas of the curriculum (spelling and fractions)

- primary school children of all ages have difficulties with spelling words when the spelling cannot be predicted from the way the word sounds;
- children's difficulties with spelling can be reduced by making them aware of the morphemes that compose words; this has a positive effect on their vocabulary growth;
- most pupils in Years 4 and 5 have not grasped the relative nature of fractions as numbers, and their difficulty is primarily conceptual;
- teaching programmes that start from pupils' intuitions about sharing (division) can have a positive impact on pupils' learning;
- two or three hours of teaching can boost children's understanding and their use of fractions.

Learning and teaching across the curriculum (thinking skills and assessment for learning)

- teachers were able to design and teach lessons to promote 'thinking skills' by using an 'infusion' approach (the ACTS II project);
- children's thinking strategies were helped by such things as modelling thinking and using visual tools;
- teachers involved in ACTS reported changes in their classroom practices, in their perceptions of children's thinking and in their images of themselves as teachers;
- children participating in ACTS reported positive changes in their learning, particularly their use of metacognitive strategies. However, these changes took time to build and gains were not even across all learners;

- assessment for learning helps teachers promote learning how to learn by providing ideas for practical strategies that enable pupils to become more autonomous learners; however, it is difficult to shift teachers from reliance on specific techniques (the letter of AfL) to practices based on deep principles integrated into the flow of lessons (the spirit of AfL).

The use of ICT to enhance learning

- effective teaching and learning with ICT involves building bridges between 'idiosyncratic' learning, arising from extended periods of individual engagement, and 'intended' learning that often needs to be supported by the teacher;
- young children's encounters with ICT are enhanced when practitioners use guided interaction (questioning, modelling, praising, supporting) and balance child-initiated and adult-led activities;
- guided interaction with ICT can enhance dispositions to learn, knowledge of the world and operational skills, as well as hand-eye coordination;
- providing a broad range of ICTs, including digital still and video cameras, mobile phones and electronic keyboards and toys, as well as computers, promotes more opportunities for learning;
- there is a two-way exchange of knowledge between home and school use of ICT and this impacts on school learning, but the teacher remains key to the successful use of ICT for learning.

Environments for better learning

- high quality pre-school experience benefits children and these benefits remain evident at age 10;
- children make more gains in settings combining education and care;
- good early years staff provide direct teaching, instructive learning environments and 'sustained shared thinking' to extend children's learning;
- effective group work in both primary and secondary schools, and across the curriculum, has a positive effect on pupil's academic progress, higher conceptual learning, pupil behaviour and personal relations between teachers and pupils and among pupils, provided that teachers take the time to train pupils in the skills of group working;
- 'funds of knowledge' are embedded in the cultures of homes and communities and these can be used to support learning in schools;
- knowledge-exchange activities can make teachers more knowledgeable about children's out of school lives, and parents more knowledgeable about what happens in school;
- children develop their identities as learners through successive experiences as they move through schooling and the extent to which school provision matches learners' identities, social relationships and cultural resources strongly influences the outcomes of education.

School conditions for the improvement of teaching and learning

- pupil consultation benefits: pupils, by enhancing engagement with learning, sense of agency and of self as learner; teachers, by deepening insights into children's abilities and learning preferences, leading to more responsive teaching and willingness to give pupils more responsibility; schools, by strengthening school policy in substantive ways;
- however, ingrained habits can prevent pupils being 'heard';
- many barriers to pupils' participation and learning stem from teachers' misplaced assumptions about what pupils can do and how best to teach them; 'interruptions' to established understandings and practices can be fostered when groups of staff engage with evidence about pupils' experience of school and their own practice;
- classroom-focused enquiry by teachers is a key condition of promoting autonomous learning by pupils; schools that embed assessment for learning make support for professional learning a priority;
- 'research lesson study' is an effective enquiry strategy; it engages teachers at all levels of experience and sustains their interest over time; it involves pupils directly in the analysis of teaching and leads to innovation in lesson design and improvements in pupil achievements;
- educational networks are much talked about but little understood, and electronic tools for professional development purposes are not well used; however, the intellectual capital of schools can be built on the social capital developed through teachers' personal networking practices;

- pupils of teachers who are committed and resilient are likely to attain more than pupils whose teachers are not, but teachers in schools serving more disadvantaged communities are more persistently challenged than others.

Main implications for policy and practice

The implications of these findings have been synthesised in ten principles for effective teaching and learning:

1. Learning should aim to help individuals and groups to develop the intellectual, personal and social resources that will enable them to participate as active citizens, contribute to economic development and flourish as individuals in a diverse and changing society. This may mean expanding conceptions of worthwhile learning outcomes and taking seriously issues of equity and social justice for all.

2. Teaching and learning should engage learners with the big ideas, key processes, modes of discourse and narratives of subjects so that they understand what constitutes quality and standards in particular domains.

3. Teaching and learning should take account of what the learner knows already in order to plan their next steps. This includes building on prior learning but also taking account of the personal and cultural experiences of different groups of learners.

4. Teachers should provide activities and structures of intellectual, social and emotional support to help learners to move forward in their learning so that when these supports are removed the learning is secure.

5. Assessment should be designed and implemented with the goal of achieving maximum validity both in terms of learning outcomes and learning processes. It should help to advance learning as well as determine whether learning has occurred.

6. A chief goal of teaching and learning should be the promotion of learners' independence and autonomy. This involves acquiring a repertoire of learning strategies and practices, developing positive learning dispositions, and having the will and confidence to become agents in their own learning.

7. Learners should be encouraged and helped to build relationships and communication with others for learning purposes, in order to assist the mutual construction of knowledge and enhance the achievements of individuals and groups. Consulting learners about their learning and giving them a voice is both an expectation and a right.

8. Informal learning, such as learning out of school, should be recognised as at least as significant as formal learning and should therefore be valued and appropriately utilised in formal processes.

9. The need for teachers to learn continuously in order to develop their knowledge and skill, and adapt and develop their roles, especially through classroom inquiry, should be recognised and supported.

10. Institutional and system level policies need to recognise the fundamental importance of teaching and learning and be designed to create effective learning environments for all learners.

FURTHER INFORMATION

The report on which this briefing is based: James, M. and Pollard, A. (2008) *Learning and Teaching in Primary Schools: insights from TLRP* (Primary Review Research Survey 2/4), Cambridge: University of Cambridge Faculty of Education. ISBN 978-1-906478-30-8.

The report is available at www.primaryreview.org.uk and is one of 32 Primary Review interim reports. Two of these deal with the opinion-gathering strands of the Review's evidence base. The remainder report on the thirty surveys of published research which the Review has commissioned from its 70 academic consultants. The reports are being published now both to increase public understanding of primary education and to stimulate debate during the period leading up to the publication of the Review's final report in late 2008.

The Primary Review was launched in October 2006 as a wide-ranging independent enquiry into the condition and future of primary education in England. Supported by Esmée Fairbairn Foundation, it is based at the University of Cambridge Faculty of Education and directed by Professor Robin Alexander.

The Review has ten themes and four strands of evidence (submissions, community and national soundings, surveys of published research, and searches of official data). The report summarised in this briefing relates to the **Research Survey** strand and the theme **Learning and Teaching**.

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