

# Research Briefing No. 15

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## The Home-School Knowledge Exchange Project: Numeracy Strand

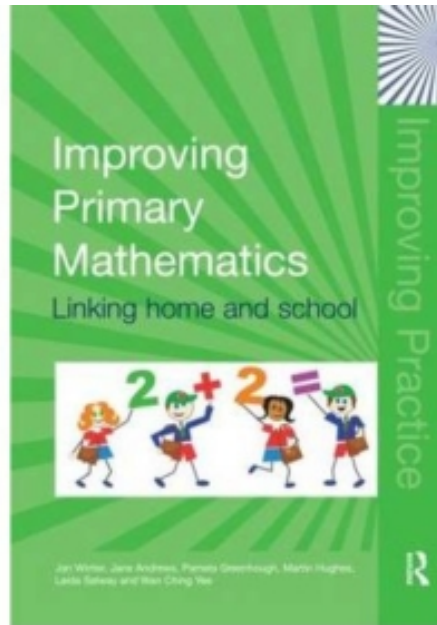
### Key findings

- The Home School Knowledge Exchange (HSKE) activities were generally well received by the teachers, parents and children.
- There was evidence that the knowledge exchange activities were having a positive effect on children's attainment. In the numeracy strand the children who experienced HSKE activities made greater progress in maths compared to those in the comparison schools and this difference was significantly greater in the high free school meals group.
- Parents appreciated activities which provided them with knowledge about what and how their child were doing in school mathematics. As a result of their increased awareness of their children's mathematics learning, many parents had either bought commercially available books or asked their children's teacher for extra homework or maths activities
- The home-to-school activities were also positively received by the teachers and expanded the range of relationships between parents and schools. One head teacher reported how, as a result of the impetus provided by the project, *The hard to reach parents are now coming into school for open evenings and supporting some of our cultural or social events ...and even this morning, we've had a group of parents in to our Eid Assembly who a few years ago we wouldn't have seen there*



### The research

The HSKE project was funded by the ESRC (2001-2004). The project was part of a large research programme called the Teaching and Learning Research Programme (TLRP), directed by Professor Andrew Pollard ([www.tlrp.org](http://www.tlrp.org)). The HSKE project was based on the assumption that both parents and teachers have knowledge that is relevant to enhancing pupil attainment and learning disposition, but this knowledge is often poorly communicated and under-utilised. The overall aim was to develop, understand and evaluate ways in which pupil attainment and learning disposition can be enhanced by a process of knowledge exchange between parents and teachers, which also involved children themselves. This briefing focuses on the Numeracy Strand: Developing numeracy at Key Stage 2.



*The project team comprised: Martin Hughes (project director), Jane Andrews, Anthony Feiler, Pamela Greenhough, David Johnson, Elizabeth McNess, Marilyn Osborn, Andrew Pollard, Mary Scanlan, Leida Salway, Vicki Stinchcombe, Jan Winter, Wan Ching Yee.*

## Research design

Four primary schools actively participated in the Numeracy Strand; two in Bristol and two in Cardiff. Within each city one school had a relatively high % of pupils eligible for free school meals while the other had a relatively low %. A set of schools matched to the action schools was also recruited to the project but did not carry out any activities and provided the opportunity for quantitative comparisons of the pupils' learning outcomes. A numeracy teacher-researcher worked closely with teachers and parents in the four action schools developing numeracy-related home-school knowledge exchange activities and supporting their implementation. The teacher-researcher focused her work on children in one Y4 class in each of the four schools and continued to be the focus of the project's work during Y5. The project outcomes team evaluated the impact of the knowledge exchange activities on children, their families and their schools using a range of quantitative and qualitative methods.

## Further information

Winter, J., Andrews, J., Greenhough, P., Hughes, M., Salway, L. & Yee, W.C. (2009) *Improving Primary Mathematics: Linking Home and School*. 96pp. Abingdon: RoutledgeFalmer.

Winter, J., Salway, L., Yee, W. C. and Hughes, M. (2004) Linking Home and School Mathematics: The Home School Knowledge Exchange Project. *Research In Mathematics Education*, 6, pp59-75.

Andrews, J., Yee, W.C., Greenhough, P., Hughes, M. & Winter, J. (2005) Teachers' Funds of Knowledge and the Teaching and Learning of Mathematics in Multi-Ethnic Primary School Classrooms: Two Teachers' Views of Linking Home and School (2005) *Zentralblatt fur Didaktik der Mathematik*, 37, no 2, pp72-80.

### Website

[http://www.tlrp.org/pub/documents/Hughes\\_RB\\_22\\_FINAL.pdf](http://www.tlrp.org/pub/documents/Hughes_RB_22_FINAL.pdf)

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