

Research for Teachers

Raising achievement through group work

What can teachers do to improve pupils' communication skills? How can we make sure that group work encourages, includes and values contributions from everyone?

To shed some light on these important issues, the TLA research team looked at evaluations of a classroom approach called 'Thinking Together' which helped pupils learn to work collaboratively and improve their capacity to think.

This summary explores what teachers can do to help pupils work collaboratively using dialogue both to communicate with each other and to reason together.

The researchers developed their Thinking Together approach to promote primary pupils' use of exploratory talk. Exploratory talk is a type of talk believed to be effective for thinking and learning. Pupils who engage in exploratory talk pool ideas, opinions and information. They think aloud together to create shared knowledge and understanding. Central to the Thinking Together approach is the researchers' belief that collaborative thinking skills can and should be explicitly taught. The Thinking Together approach is underpinned by Lev Vygotsky's educational theory (which we have reported in an earlier summary), that an important way in which children learn to think individually is through learning to reason with others through dialogue. The researchers have carried out a number of experimental implementations and evaluations of their Thinking Together approach over the last ten years or so. They considered ICT, particularly stand-alone computers, to be a useful tool for collaborative discussion, and they investigated its application in school classrooms in a number of their research projects. Their studies repeatedly showed that when children were taught how to reason together through exploratory talk, they were able to transfer their reasoning skills to other educational experiences. These benefits were particularly significant for children for whom English is an additional language.

This TLA research summarises and synthesises three of the researchers' studies:

Wegerif, R., N. Mercer and L. Dawes (1999). 'From social interaction to individual reasoning: an empirical investigation of a possible socio-cultural model of cognitive development'. *Learning and Instruction* 9 (5) pp.493-516.

Wegerif, R., K. Littleton, L. Dawes, N. Mercer and D. Rowe (2004). 'Widening access to educational opportunities through teaching children how to reason together'. *Westminster Studies in Education* 27 (2) pp. 143-156.

Wegerif, R. (2004). 'The role of ICT as catalyst and support for dialogue'. *NALDIC Quarterly* 1 (4) pp. 4-12.

In this summary we explore:

- the rationale underpinning the Thinking Together approach
- how primary aged pupils benefited from the Thinking Together approach
- how they were taught to interact and reason with each other, and
- ways computers were used to support pupil dialogue.

We also give a range of examples of successful pupil interactions drawn from the studies, together with some that were less effective, to illustrate the impact the Thinking Together approach had on primary pupils' discussions with each other.

Why is the issue important?

Getting children to work together in small groups does not of itself help their learning. For example, confident children may dominate discussions whilst quiet children are uninvolved. Children may argue unproductively with each other or they may happily go along with what others say without any reflection or debate. They may even chat off-task. It's important that teachers give pupils support to enable them to learn effectively from each other during small group discussion.

What did the research show?

Children who were taught how to work collaboratively with each other in small groups (sometimes with computers) using the 'Thinking Together' approach, were engaged in 'exploratory talk' (the type of talk considered to be effective for thinking and learning) more often after the programme of lessons than they were before it. The children:

- involved each other
- asked each other questions
- listened carefully to what each other said
- responded constructively
- gave reasons for their opinions.

These improvements were particularly noteworthy for children for whom English is an additional language. Pupils also made significant gains in their reasoning and teachers reported how the approach had a positive impact on inclusion in the classroom.

How was this achieved?

Over nine lessons, teachers taught the children how to use social ground rules through explicit modelling and coaching in group discussions. For example, they modelled asking 'Why?' questions, using 'because' to give reasons for statements, asking other children what they thought and reaching an agreement before coming to a decision. A key lesson in the programme involved eliciting the ground rules in the children's own words. The rules were displayed on the classroom wall for the children to refer to. For example, one class composed these ground rules for talk:

- Discuss things together. That means: ask everyone for their opinion, ask for reasons why and listen to people.
- Be prepared to change your mind.
- Think before you speak.
- Respect other people's ideas - don't just use your own.
- Share all the ideas and information you have.
- Make sure the group agrees after talking.

How was the research designed to be trustworthy?

The researchers conducted a number of separate, complementary studies. The three studies reported in the RfT involved samples of pupils aged 6-10 years who worked together on reasoning tasks and at computers. The researchers gathered and analysed a range of data including:

- the children's scores on two non-verbal reasoning tests (before and after the programme),
- video recordings and observations of how children worked with each other, and
- interviews with school staff.

What are the implications?

Teachers wanting to promote collaborative working and improve their pupils' thinking skills may like to consider the following implications of the findings of this research:

- The researchers stressed the importance of eliciting ground rules in the children's own words. Would watching videos or listening to audio tapes of themselves or other pupils working together help with this?
- How could you develop their comments into rules for discussion for their class?
- The teachers involved in the studies organised their classes into mixed gender groups of three. How do you group children for learning? Is this a key area to think about when you are planning for group work? (You may find it helpful to read case study 1 which shows the criteria one teacher used for deciding which children to group together).
- Could you make more use of computer activities to create opportunities for learning conversations, whilst supporting your pupils in learning how to work collaboratively?
- Could you work collaboratively with some of your colleagues to help you investigate ways of promoting exploratory talk with your classes? Would classifying your children's talk into disputational, cumulative and exploratory types create a framework for developing your thinking about the way the children interact with each other? (You may find case study 5 a useful starting point because it shows how a group of teachers went about exploring and analysing the talk their classes engaged in).
- Would your pupils benefit from reflecting on their experiences of working collaboratively with you and each other? How might you plan and organise such debriefing sessions? (You may find case study 2 a useful starting point because it shows a way of collecting and analysing students' views of collaborative group work).

Leaders may wish to consider the following implications:

- The researchers stressed the importance of teachers modelling how they wanted children to talk together. Would your colleagues find it helpful to have the opportunity to practise and reflect on their skills of questioning, and giving and asking for reasons, through taking part in role-plays with each other etc? (You may find case study 4 a useful starting point because it shows how teachers were trained in how to challenge their pupils' thinking and understanding during group activities).
- Does improving communication feature sufficiently within your proposed development plans as a means of promoting social inclusion? Could your school do more to exploit enhancing talk skills as a social inclusion strategy?

- The teachers involved in the projects reported in the RfT benefited from professional development focused on structured group work. Could you do more to support colleagues trying to improve collaborative working in their classrooms, by for example, organising workshops and inviting practitioners from university education departments or other schools?
- The researchers found that certain kinds of computer software could support learning dialogues (provided children were prepared for working together beforehand). Would your colleagues find it helpful to have opportunities to share with each other their experiences of using the computer in this way?

To read the full study, see

<http://www.tla.ac.uk/site/SiteAssets/RfT1/06RE034%20Raising%20achievement%20through%20group%20work.pdf>