

Group discussion – more than just sociable chatter?

Collaboration is not just important in developing thinking skills. There is plenty of evidence about the effectiveness of structured group work too. In a recent study, teachers of retake GCSE maths classes from 44 further education colleges used a teaching resource designed to encourage discussion-based learning of algebra. The aims in using the resource were that:

- lessons would consist of rich, challenging group tasks
- teaching would emphasise methods and reasons rather than just answers
- students would create links between mathematical topics
- students would be encouraged to make mistakes and learn from them.

One set of activities, for example, encouraged students to reflect on common generalisations. Each group was asked to make a poster. This involved grouping statements (expressed in words or symbols) under the headings 'always true, sometimes true or never true' and surrounding the statement with justification and explanation. A typical statement was "*If you multiply 12 by a number, the answer will be greater than 12*" or " $12a > 12$ ". Another activity involved asking the students to set problems which other students were invited to solve. The setter and the solvers then worked together to see where difficulties had emerged.

Tutors who encouraged their students to discuss their existing knowledge and misunderstandings were much more successful at improving their students' learning and maintaining their confidence and motivation than those tutors who simply conveyed facts and skills.

How can you improve the way that you structure group work to make sure that it is effective?

Swan, M. (2006) Learning GCSE mathematics through discussion: What are the effects on students? *Journal of Further and Higher Education* 30 (3) pp. 22-241